ISSN 2454-5694

Volume 6 Number 1 June 2020

JOURNAL OF KOLKATA SOCIETY FOR ASIAN STUDIES

An International Bilingual Journal of
Social Science (UGC CARE)

KSS
Kolkata Society for Asian Studies

Journal of Kolkata Society for Asian Studies • June 2020 • Vol. 6 • No. 1

JOURNAL OF
KOLKATA SOCIETY FOR ASIAN STUDIES
Office: 3/25/1, R.K. Chatterjee Road, Kolkata-700042
Phone: +91 9432490361
Email: ksasianstudies@gmail.com
kspublication1@gmail.com

EDITORS
Ranjana Ray
Sarmistha De Basu

EDITORIAL BOARD MEMBERS

Dilip Coomer Ghose
Krishna Bhattacharya
Krunoslav Mikulan
John Adamson
Satyabrata Chakrabarti
President, KSAS (Ex-Officio)

Meshbah Kamal
Suniti Pathak
Durga Basu
Vinay Kumar Srivastava
Arpita Basu
Treasurer, KSAS (Ex-Officio)

General Information

Journal of Kolkata Society for Asian Studies is a double blind peer reviewed publication. It is an International Journal dedicated to the development of all branches of Social Sciences with special reference to Asian Studies. The journal accepts theoretical and empirical papers on interdisciplinary studies. The journal occasionally publishes special issues which meditate on a single topic. It also publishes research notes, reports, book reviews, etc.

JKSAS is a half –yearly (June and December) and bilingual (English and Bangla) journal. Only original unpublished papers are accepted. Papers submitted for consideration must not be under consideration elsewhere. The copyright of the accepted papers will lie with Kolkata Society for Asian Studies. Decisions of the Editorial Board are final.

Subscription and Business Affairs

	Annual Subscription	
Countries	**Institutional Subscribers**	**Individual**
India	**INR 1200.00**	**INR 1000.00**
Foreign Countries	**US $ 100.00**	**US $ 90.00**

All correspondences relating to subscription, advertisements and other business matters should be addressed to the SECRETARY Kolkata Society for Asian Studies. Remittance should be payable to KOLKATA SOCIETY FOR ASIAN STUDIES.

Copyright@ Kolkata Society For Asian Studies.

Editorial Note

Kolkata Society for Asian studies strives to promote studies in Asia. This volume is with fifteen selected articles. The first article is by Dr. Satyabrata Chakrabarti, President of the Kolkata Society for Asian Studies, entitled. "Tagore's construct of Rayats: Rhetorics of a visionary". He has given an overview of the relevance of Tagore's feeling for the "Rayatas". He has appreciated Tagore's work and emphasized the direct method of data collection in social science.

Professor Durga Basu, former Professor, Department of Archaeology, Calcutta University, in her paper, "Two unique wooden temples in Manali–Himachal Pradesh", has chosen the wooden temples of Himachal Pradesh, the *Tripura Sundari* and *Sandhya Gayatri,* located in Beas valley, Manal. These are built in traditional and vernacular architectural styles showing the religious need of the local community in accordance with suitability in the geomorphologic setting of the locality.

A joint article by Debjani Mahato, research scholar, department of Anthropology and Dr. Debasis Kumar Mondal, Assistant Professor, Department of Anthropology, Calcutta University, is on the relevance of Environment archaeology for study of prehistoric cultures. They have illustrated the importance of environmental archaeology through the study of a site, Jagannathpur from Singhbhum district, Jharkhand.

An article on amendment in Indian Arbitration Jurisprudence is written jointly by Kush Ghai, B. A., LLB, Vth year student of Uttaranchal University and Dr, Sandhya Verma, Assistant Professor, Uttaranchal University, Dehradun. The authors have brought forward a critique of international arbitration jurisdiction and role that India plays in it.

COVID-19 is the urgent theme of the day. Dr. Gouri Sankar Nag, Professor and Head, Department Of Political Science, Sidho Kanho Birsha University, Purulia and Arpan Bhattacharya, Assistant Professor and Head, Department of Political Science, Ramananda College, Bishnupur, Bankura, West Bengal, have jointly written an article on corona outbreak in South Asia. They have discussed how the pandemic situation has opened up venue for cooperation of India with its neighboring countries.

E-learning is an emerging phenomenon in the field of education. A joint paper is written by Mr. A. Prakalathan, Dr.B.Indirapriyadharshini and Dr.N.Giri. All of them are Assistant Professors in the department of Commerce, NGM College, Pollachi. The study is based on empirical data with the use of questionnaire, collected from the students of Pollachi Taluk.

Stress and anxiety experienced by students before appearing for an examination is studied by Subhasish Sen, Independent Scholar, Purulia, W.B. and Sudip Barik, B.Ed student, Department of Education, Vinaya Bhavana, Visva–Bharati University, Santiniketan, W.B. They have collected data from college students of both genders from Purulia district, West Bengal.

Subrata Bachhar, Assistant Professor & Head, Department of Education, Surendranath College for Women, University of Calcutta and Dr. Ajit Mondal, Assistant Professor, Department of Education, West Bengal State University, Barasat, West Bengal, have given research result of their study on the attitude of the teacher-educators and pupil teachers towards Two-Year B. Ed. Programme in West Bengal.

Joydip Rudra, Special Revenue Officer, Government of West Bengal wrote about the transfer of *Astāngahridaya Samhitā*, a systematised text on human illness and cure, and *Tantra* from India to Tibet in the wake of Buddhist movement. His contention is logically established in his paper.

Goddess Parbati is very popular in Eastern India and so is the cult related to her. Niladri Kumar Gunin, Research Scholar, Department of Archaeology, University of Calcutta had discussed the iconography of Parbati and its significance in Eastern India.

Good health of the citizens is priority for every nation of the world. The article by Sanchita Chakrabarti, Assistant Professor, Department of Political Science, Hingalganj Mahavidyalay, North 24 Parganas, discussed the health governance of India and suggested that low cost health governance for the country may be made with the available resources.

Promotion of online banking in India is the focus of the paper entitled, "Role of commercial banks awareness in financial services – A study with special reference to Mysore district" by Mr. Manoj S., Doctoral Research Scholar of JSS Research Foundation, affiliated to the University of Mysore and

Dr.M.Prabhu, Assistant Professor in JSS College for women's Kollegala taluk Chamarajanagar district, affiliated to the University of Mysore. The paper focuses on online banking and the role of commercial banks creating awareness for the customers. They suggested that online banking transaction will assist quick development of banking system in India.

Man and plant relationship is an important phenomenon in human society. Snigdhamoyee Kundu, Assistant Professor, Department of Philosophy, Sivanath Sastri college, Kolkata, wrote an article on some plants held sacred in India. The author has pointed out that each of those plants is with medicinal values. The myths and rituals connected with the plants are exhaustively discussed and suggested that such belief system is congenial for the protection of the plants for posterity.

Main focus of the paper by Dr. Debasree De, Post-Doctoral Fellow at the Department of History, Jadavpur University, is on tribal movement against land alienation in Jharkhand state, in the name of development.

Final Paper in this volume is on suicidal ideation and internet addiction of college students, both male and female jointly written by Dr. Sraboni Chatterjee, Assistant Professor, Department of Psychology, Bijoy Krishna Girls' College, Howrah and Smt. Sreeparna Majumder, MA in Psychology. The work is a result of psychometric analysis of the samples of college students from Kolkata.

The above mentioned papers are selected on the basis of peer review. The editors are grateful to the reviewers, who have taken time off from their busy schedule to go through the papers and decide upon the suitability of the same for the publication. Finally we would like to thank the authors who have enriched this volume of the journal with their scholarly articles.

Ranjana Ray

Sarmistha De Basu

Content

	Page No.
• Tagore's Construct of the 'Rayats' : Rhetoric of a Visionary *Satyabrata Chakrabarti*	7
• Two Unique Wooden Temples in Manali–Himachal Pradesh *Durga Basu*	16
• A Study of Environmental Archaeology of the site Jagannathpur in Galudih Area in Purbi Singbhum District of Jharkhand *Debjani Mahato* *Debasis Kumar Mondal*	23
• One Step Forward Two Steps Backward : The Retrogressive Amendment in Indian Arbitration Jurisprudence *Kush Ghai* *Sandhya Verma*	48
• Corona Outbreak : Inflection Point for India's South Asian Moment *Gouri Sankar Nag* *Arpan Bhattacharya*	68
• Students Attitudes Towards E-Learning in Pollachi Taluk *A. Prakalathan* *B. Indira Priyadarshini* *N. Giri*	75
• Attitude of Teachers Towards Two-Year B.Ed. Programme in West Bengal With Reference to the NCTE Regulations, 2014 *Subrata Bachhar* *Ajit Mondal*	84
• Examination Stress and Anxiety : A Study of Under Graduate Students in Purulia District *Subhasish Sen* *Sudip Barik*	103

- Crossing of Vāgbhaṭa's *Aṣṭāngahṛdaya Saṁhitā* along with Tantra into Tibet from India – A Buddhist Perspect

  Joydip Rudra 122

- Iconography of Several Forms of Parvati Images in Eastern India

  Niladri Kumar Gunin 133

- Health Governance and Managing Challenges Towards Achieving Universal Health Coverage in India 150

  Sanchita Chakrabarti

- Role of Commercial Banks Awarness in Financial Services - A Study With Special Reference to Mysore District

  Manoj .S 166

  M. Prabhu

- Sacred Plants in India : A Study of Magico-Religious Beliefs and Practices

  Snigdhamayee Kundu 186

- Tribal Land Alienation and Resistance in Jharkhand A Case Study of Pathalgadi Movement

  Debasree De 200

- Comparative Sketches of Suicidal Ideation And Depression of Internet Addicted Male and Female College Students of Kolkata

  Sraboni Chatterjee

  Sreeparna Majumder 215

Tagore's Construct of the *'Rayats'* : Rhetoric of a Visionary**

Satyabrata Chakrabarti

Abstract : *Rabindranath Tagore, apart from his creative writings in different areas of literature, art, aesthetics, was also deeply involved in thinking for the welfare of the rural masses. His vigorous engagement with the experimentation of rural development originated out of his direct contact with them while looking after their family estates in certain areas of rural Bengal which now form part of Present Bangladesh. Later on, he did the same experiment in Sriniketan, West Bengal. However, what is attractive to a student of social science in his commitment to the working peasants welfare based on a kind of theoretical formulation at a point of time when the famous essayist Pramatha Choudhury advanced his ideas in this direction of rural transformation in his much discussed essay entitled Rayater Katha. The present paper is developed around the input provided by Sri Choudhury and Tagore's response to that which ultimately turns out to be an independent piece of writing which is included in Tagore's important compilation of essays entitled Kalantar.*

Key words : rayat, working peasants, rural development, family estate, proprietory right, welfare of the rural masses, kalantar.

Rural reconstruction or rural development programmes are pre-supposedly based on certain structural build up and their concomitant functional reflections. The agrarian structure and its evolved changes at a given point of time provide certain directions towards understanding the stages of historical and politico-economic developments of a country. Academicians, planners, administrators and social

workers had already provided lot of inputs in studying these issues both in theoretical as well as in applied perspectives. Sometimes the extra-ordinary intellectual thinkers or visionaries also contributed to our understanding of societies and cultures in general and agrarian specificities in particular.

Rabindranath Tagore was one among such exceptionally brilliant visionaries. He brought into relief from his own personal and direct experiences a number of very important observations rendering some stimulating thinking on the subject. His suggestive ideas were not restricted only to the analytical postulates about the nature of rural societies and cultures prevailing in his time in certain parts of Bengal. He simultaneously made exploratory experiments to apply his ideas for rural reconstructions in a limited scale.

An attempt will be made here primarily to retrieve the rhetoric of Tagore as explicated in his reflective discourses centering around the themes of rural reconstruction. In order to do that the author has chosen to critically review one of his most germane essays entitled *Rayater Katha*. We get this piece in the form of an introduction to Pramatha Choudhury's small booklet with the same title *Rayater Katha,* which was published by Visva-Bharati in 1351(B.S.) i.e around 1944, under a popular series named Visva Vidya Sangraha as its 19th title, though it was originally published little earlier. The same essay was published also as an independent piece in *Kalantar,* a collection of 32 very insightful essays of Tagore in Bengali. This collection was published in 1344(B.S.) i.e. 1937 in English. It is shown in the appendix that this particular essay that has been taken up for discussion here was published in a Bengali literary journal *Sabujpatra* in 1333(B.S.) i.e. 1926 in English. This is known that Tagore read Choudhury's essay much later as he was away on a trip abroad. After going through the text he made his critical observations on the issues raised by Choudhury regarding allowing the proprietary right to the cultivators, i.e. the *Rayats*. Later the said text of Choudhury was re-published along with Tagore's Introduction. Incidentally it may be mentioned that the discourses included in Tagore's *Kalantar* could be easily appreciated as the most outstanding contributions of Tagore in the field of social science research even today (pl. see *Kalantar,* Visva-Bharati, 1937, revised edition, 1969).

Let us now look at the cardinally important issues raised in the original essay by Pramatha Choudhury. He was not only a renowned essayist of his time but was

also a person of Tagore's extended family as well as an intimately involved official in Tagore's estates. He was known to the literary circle in those days as an argumentative critic on many social, cultural, economic and political issues of contemporary relevance. An excerpt from his longish footnote, which was published along with the Introduction of Tagore embodying the same title, ie *Rayater Katha*, may be mentioned here in my own translation. Choudhury prefers to introduce himself as a man of literary composers, but not a politician. He pronounces that one can impose restrictions in case of the expressions of a politician, certainly not in case of the other category. He takes a position that the political thinking of this 'other category' is not grounded into the contemporary time alone, but they transcend across the three *Kalas,* i.e. the present, past and the future. Therefore, they will not be totally a prototype either of the past or of the present, but will reflect on both (pl. see the Bengali version, *Rayater Katha*, Visva Bharati, 1351 B.S. p.18). It would not be out of place to juxtapose a point that Tagore suggested to his readers about comprehending his own ideas that were developed gradually and evolved over a long span of time in a historical context. And while doing so according to Tagore, one should not and cannot afford to consider this part or that part of the 'writings' without a reference to the actual holistic context (pl. see *Kalantar*, ibid, p 338).

In this context of an analytical paradigm one may bear in mind that any thinker of finer nuance, by and large, may be caught in a situation of duality simultaneously, namely idealism vis-a-vis pragmatism. It is not unusual in case of Rabindranath also. His initial grooming was complete in the ambience of an intellectual freedom which the Tagore family fully imbided since long. Rabindranath's initial acquisition of and later exposure to the cultural and civilizitional constructs of both the oriental and the occidental milieu helped shaping his future cognitive contour. In this continuum of perception and understanding of social and cultural phenomena, the primordial roots got effectively amalgamated with a wider global vision.

The most important question raised by Sri Choudhury in *Rayater Katha* centres around his proposal to ensure that the actual cultivators of land get the legal status of peasant proprietors (i.e. *rayat*) with transferable rights abolishing the non-cultivating intermediaries. Tagore expressed his doubts on this proposal of Choudhury and on its immediate mode of implementation. He thought of it

according to his own admission, not probably as one belonging to a group of the Zemindars, but as one of the sincere well wishers of the peasants. Possibly he apprehended some unforeseen cumulative means of exploitation of the simple and uneducated peasants by their relatively manipulative category of non-cultivating intermediaries beyond any comprehension in the matter of management of landed property. Tagore gathered this phenomenal experience while looking after their family estates in Shilaidaha, Patisar and Sajadpur falling under the erstwhile East Bengal (now Bangladesh) since late 1889 to 1922. He was already at the height of his creative and imaginative excellence which helped him foreseeing many practical aspects of rural life and living in advance. This period of management of Zemindari was in fact the spring board for any of his insights related to his proposed future programmes for holistic village development based on collective self confidence and mutual co-operation.

Let me make a little digration for the moment in order to get back into the basic premises of this discussion. The problems and prospects of the '*rayats*' are inextricably linked up with the major agrarian issues, the most important of which is the land tenure system. This system needs to be understood in the context of its historical and politicio-economic development in India in general and in the then Bengal in particular specially between the Permanent Settlement of 1793 and Bengal Tenancy Act of 1885 (Joshi, 1975). Karl Marx and Henry Maine were, among others, the two most foremost scholars who had established the importance of studying Indian village communities in the academic circle of the world history. They had also drawn our attention to its relevance in the above mentioned intellectual framework where Tagore's construct of the '*rayat*' can be best explained. It seems Tagore was aware of the two important factors for the perpetuation of a disadvantageous agrarian hierarchy which put the ordinary peasants ('*rayats*' in this case) in a poverty stricken condition; one was the static division of labour embedded in the caste based occupations and the other was the enormous scope of surplus extraction from the poor '*rayats*' by their exploitative middle order rent racketeers, moneylenders and big landowners. This was precisely the reason for Tagore's reluctance to accept the proposal of Choudhury granting ownership with transferable right to the poor 'rayats'. Tagore wanted a sustained educational spade work for preparing that mental stage for the illiterate rural masses before granting this right and eventually rendering

them to be booked at the hands of these exploiters. Tagore's sentiments were nicely expressed in many germane pieces of poems and songs. Notable among others, to cite just one example from Bengali poem entitled *'Ebar Phirao More'*, specially the following few lines reveal his mind:

Oi je dandeye natashir
Muk Sabe, Mlan Mukhe Lekha Shudhu
Shata Shatabdir Bedanar Karun kahini;
Skandha Jata Chape Bhar Bahi Chale
Mandagati Jatakshan Thake Pran Tar—
Tar Pare Santanere Diye Jai Bansha Bansha
Dhari, Nahi Vartse Adrishtere, Nahi Ninde
Debatare Smari, Manabere Nahi Dey Dosh,
Nahi Jane Abhiman, Shudhu Duti Anna
Khunti Konomate Kashtoklishta Pran Rekhe
Dey Banchaiya

(Sanchayita, Visva Bharati, 1338 B.S. p 219)

The rural masses, a considerable section of them being the poor 'rayats', by and large, continue their living in distress without any formidable way out and gradually pass the buck on their heirs through generations for a couple of centuries without much protest or resistance.

Tagore was struck by this pathetic condition of the '*rayats*' especially during his stint as the manager of their father's estates. From the day one he wanted to learn about the socio-economic problems of the villagers' very intimately along with his creative writings. Eventually he got himself involved in some applied programmes for rural reconstructions and rural developments.

One is tempted to feel that his entire agenda for rural reconstructions has been reflected through a few lines of the same poem just referred to in the preceding paragraph :

Anna Chai, Pran Chai, Alo Chai
Chai Mukto Bayu; Chai Bal, Chai Swastha,
Ananda Ujjal Paramayu, Sahasa Bistrita
Bakshapat (ibid, p220)

This hapless lot require for their comfortable living, enough food, fresh light and air, health and energy, courage, and joyful long life. This consistency of concern of Tagore for the welfare of the greater number of rural masses (the '*rayats*' form a sizeable section in this category) can be linked up in his vociferous reactions to Pramatha Choudhury's immediate emphasis on granting the transferable right to the poor '*rayats*'. One can cite, for example, Tagore's statements before the Pabna Provincial Conference in 1907 in this context :

> "If you do not empower the unfortunate ryots and allow them to be independent and able to save themselves from your own clutches and those of others, no laws, however good, and no government, however friendly, will be able to save them..... If the majority of the people are forever exposed to the machination of landlords, moneylenders, policemen and court officials, how do you expect them to take charge of their own destinies" (Sinha, 2012)

In another context, when he was in the thick of his experimentation of rural reconstruction, in a letter to Atul Sen, his dedicated worker in Kaligram, he writes, "Put all your heart and mind into the effort to win over people's hearts, you will see all hurdles will disappear...It is not, of course, possible to have everyone on your side when you are trying to do your duty, but the people should be made to understand that you completely deserve their respect, that your efforts are dedicated to their service. If you can achieve this, then all obstacles are bound to recede" (ibid, p35)

Tagore addressed to himself this question of aligning wholeheartedly with the cause of the suffering people (a major part of them being the poor '*rayats*' in the rural areas) and to assign a task for his own. This sentiment is well reflected in the memorable piece of a poetry in the following lines :

Kobi, Tabe Uthe Eso,
Jadi Thake Pran, Tabe Tai Laho Sathe
Tabe Tai Karo Aji Dan
Ei Dainya Majhare Kobi,
Ekbar Niye Eso
Swarga Hote Bishwaser Chabi
(Ebar Firao More, Ibid)

The myriads and multitudes of these masses largely belonging to the r*ayats* and other segments of the rural population require only that tender and persuasive care for their new lease of life based on self confidence. Therefore, he very strongly feels that before granting the *rayats* transferable rights, they should be enlightened and be strong enough in order to put up a formidable challenge against the perpetual onslaught being perpetrated on them through generation. His arguments in response to Choudhury's discourse were based on his absolute concern, in-depth observations and first hand experiences gained directly from the village life of Bengal existing at the point of time. He expressed himself quite unambiguously in the following lines (free translation done by me):

> "Whatever limited experience that I have gained so far, I can say that if the largely illiterate *rayats* are granted the right of free transfer of land, it would amount to granting them the right to commit suicide. However, there will come a stage when they will have to be granted this right, but if it is done at this unprepared stage, they will lose everything in no time. I am only raising my doubt in particular reference to this part of your discourse"
>
> (Rayater Katha, p14)

Tagore further provided a reason for his doubt in the following manner (free translation done by me):

> "The *rayats* habitually face a more stronger exploitative face of the intermediaries than that of the Zeminders. If you do not agree to that argument, still you have to admit that those middlemen will appear to be an addtional burden...on the whole, when these people are unaware how to combat this force, there is no available law which can protect them. The real internal strength which can be of some use lies in totality of collective social life, certainly not in any isolated context. If this guiding life force is generated within the ambit of rural life pattern, then it will really achieve its completeness. Then these people will find ways from within at every step to protect themselves from all odds. How that can be done? I am striving to work out that interpretive theory in both words

> and real work...The solution of all other minor queries lies in this basic scheme of thinking, otherwise time will lapse in attempting only adhoc solutions. The central objective, for which such fragmentary solutions are being sought, will only die out ultimately." (ibid)

In spite of a huge time gap and the consequential socio-economic developments spread over different parts of the regions in our country the relevance of Tagore's intellectual inputs in this respect , by and large, holds a good ground even today. It would appear, time and again, in the backdrop of our own failures since independence, specially when one looks at the results of various five years plans in the field of rural development in general and rural poverty in particular. Tagore becomes contextually relevant to the students of social science when he talks of methods of understanding the realities of human problems. In his expressions it follows thus (free translation done by me):

> "It is worth knowing in details the kind of interactions and various reactions that are going on among the human beings in every aspect. It is a great learning to have direct observation on their interactive and lively pattern of life in the field than to know them through books. In this way, not only knowing things but the practical method of acquiring knowledge is emboldened in a manner which is never compensated through class room teaching"
>
> (Palli Sanskar)

References :

Choudhury, Pramatha	1351. (B.S.) *Rayater Katha* (in Bengali), Visva-Bharati Granthalaya, Calcutta.
Dumont, Louis	1966. 'The village community from Munro to Maine', *Contributions to Indian Sociology*, No. IX, pp.67-89.
Government of India	1962. *Tagore on Rural Reconstruction* (in Bengali), Publication Division, New Delhi.
Joshi, P.C	1975. *Land Reforms in India*, Allied Publishers, Bombay.
Sinha, Sarbari	2012. 'Unique Landlord', in *Frontline*, January 13, pp.29-36
Thakur, Rabindranath	1338. (B.S.) *Sanchayita* (in Bengali), Visva-Bharati.

Thakur, Rabindranath 1344. (B.S.) *Kalantar* (in Bengali), Visva-Bharati Granthan Bibhag, Calcutta.

Thorner, Daniel 1966. 'Marx on India and the Asiatic Mode of Production', in *Contributions to Indian Sociology*, No. IX, pp.33-66.

** The revised version of a draft paper read at the seminar organised by Anthropological Survey of India on the occasion of 150th Birth Anniversary of Rabindranath Tagore in 2011

Bio Profile of the Author :

President, Kolkata Society for Asian Studies
General Secretary, The Asiatic Society, Kolkata
Email: sbchakrabarti@gmail.com

Two Unique Wooden Temples in Manali–Himachal Pradesh

Durga Basu

Abstract : *The creation of vernacular temple architecture is primarily a result of local religious needs. These structures have their own architectural patterns. The varied architectural features and the indigenous constructional methods of these temples are unique in character. Several factors like geo- physical aspects, climatic conditions, ritual practices, indigenous artistic activities, historical situation and ethnic diversities are responsible for the emergence of such temples. The vernacular temples in India belong to different period of history and display different schools of art and architecture. Himachal Pradesh has been considered as one of the most significant homes of vernacular temples which are built with stone and wood. In the Beas river valley, the wooden vernacular temples are numerous and these temples reflect the cultural identity of the hilly people. The Tripura Sundari and Sandhya Gayatri temples are the best example of wooden temples in this region.*

Key words: Himachal Pradesh, Vernacular Architecture, Wooden Temples.

Introduction :

The hilly state of Himachal Pradesh has been glorified by innumerable wooden temples which have displayed both artistic and architectural grandeur. Spreading over the river valleys and mountainous region, the wooden temples represent a distinct indigenous architectural form which has been categorically defined as the vernacular temples. The wooden vernacular temples are sacred

edifices of popular faith of the hilly people which have played a very significant role as the living and organic institution of the folk community in this region. In the traditional temple buildings the people of the hilly areas, have accordingly designed the structures, keeping conformity with the natural environment. They have applied local building techniques and have adopted locally available materials specially stone and wood as main ingredients for constructing the temples. These temples vary from region to region due to environmental factors and local religious faiths and beliefs. Even architectural magnificence, the elevation of the tower, exquisite wooden sculptural works, all depends on the hierarchical position andimportance of gods or goddesses in the rural society. Thus while studying the dynamism of wooden temple; we should first take into consideration the geographical and environmental factors of this region.

Geographical factors :

Spreading over a vast area of 55,973sq Km with an average altitude of 2,319 metres, Himachal Pradesh is one of the most populated states of India. Most of its land lies on the foot hills of the great Dhauldhar Range of Trans-Himalayan Mountains. The region is endowed with three great rivers-the Ravi, the Beasand the Sutlej. Himachal Pradesh enjoys all variations of climate from glacier to the sub-tropical hot and humid climatic conditions due to its geographical position. Manali in the Kullu district of Himachal Pradesh has moderate climate and receives adequate rainfall.

Vernacular Architecture :

Manali, a small hilly town nestled in the mountains, near the northern end of the Kull valley is one of the most significant regions of Himachal Pradesh where a number of vernacular wooden temples grew up in a majestic form.Wooden temples are located mainly in the Beas river valley and sometimes small village temples are noticed in the remote areas of Mountains where folk people stay at their age old traditionally built wooden houses. The traditional

constructional technique seen in this area, can be classified into three categories namely- 1)Kath-kuni; 2) mud construction technique; 3) the dry stone construction. The Kath-Kuni structures of folk houses are very popular in the whole Kullu and Shimla region. In this structure both stone and wood are used. Generally deodar wood is used for both the domestic houses and religious structures since this wood has a climate protective quality. Deodar and other woods have got thermal properties which provide warmth inside the house in cool winters. It has been noticed that even while constructing the temples, village folks applied the same building technique and materials. It is believed that all architectural types of indigenous wooden temples, visible in the western Himalayan part are largely found conglomerated in this district.

Wooden temple structure :

Traditionally the wooden temples are erected on a frame work, locally known as *cheol*madeof large deodar beams on a lofty masonry platform. These wooden logs go beyond the edges of the platform at nodal points. In most cases, the temple reveals either square or a rectangular sanctum cella and an open *mandapa*. Roofs in both these structures are found to be quite interesting. On the basis of elevation characteristics, O.C. Handa has classified wooden temples in this valley into five types ranging from very simple type to the most complicated structures. These are- 1) Gabled Roofed Temples; 2) Composite- roofed temples; 3) Tower temples; 4) Multi- tiered pyramidal temples; 5) Canopied composite-roofed temples. The first category of temples comprises of very simplest form of structure with gabled roof. This type of temples is confined tothe Beas river valley and the best example is the Sandhya Gayatri temple at Jagatsukh. Another group of temples which is very popular in the Beas valley in Kullu-Manali region is the multi- tiered pyramidal roofed vernacular temples. A unique example is the Tripura Sundari temple at Naggar. The present study will mainly focus on these two wooden temples being exquisite examples of the regional folk styles of temples with ornate architectural pattern and art works.

Tripura Sundari Temple :

The massive wooden structure of Tripura Sundari temple lies in the village of Naggar in Himachal Pradesh. It is a magnificent vernacular temple architecture which represents the region's indigenous form of wooden temples and constructional technique. The temple is dedicated to goddess Tripura Sundari who is the tutelary deity of the village people. The temple stands in a rectangular courtyard, where a smallshrine is located on the left side. A wooden structure with sloping roof forms the entrance gate of the temple.The temple site is divided into two component parts- one is sanctum cella and the other is the *mandapa*. The wooden rectangular *mandapa* is open on the three sides and it is only covered by a gabled roof. The roof is supported by a number of pillars. Two beautifully carved wooden pillars are placed at the frontal part of the *mandapa.* The *mandapa* is flanked by two other sub-shrines which are built with stone and wood leading the way towards the main shrine.

The main temple shows a square structure, topped by the pyramidal tower. This multi tiered pyramidal temple is the unique creation of the hilly people. It is believed that Raja Yashodha Pal had built this temple during his reign. Noticeably, the lower two of the three-storey structure are divided bystunted wooden pillars. Its top storey is circular in form with a pinnacle crowned by a *chhatra.* The pitch of all the tiers of this temple is steep. This steepness in roofing with the folk style treatment apparent in temple architecture became popular during fifteenth/sixteenth century. The exposed wooden structural parts of this temple show lattice pattern with flora and fauna motifs. The temple dates back to fifteenth century but originally its foundation is much older.

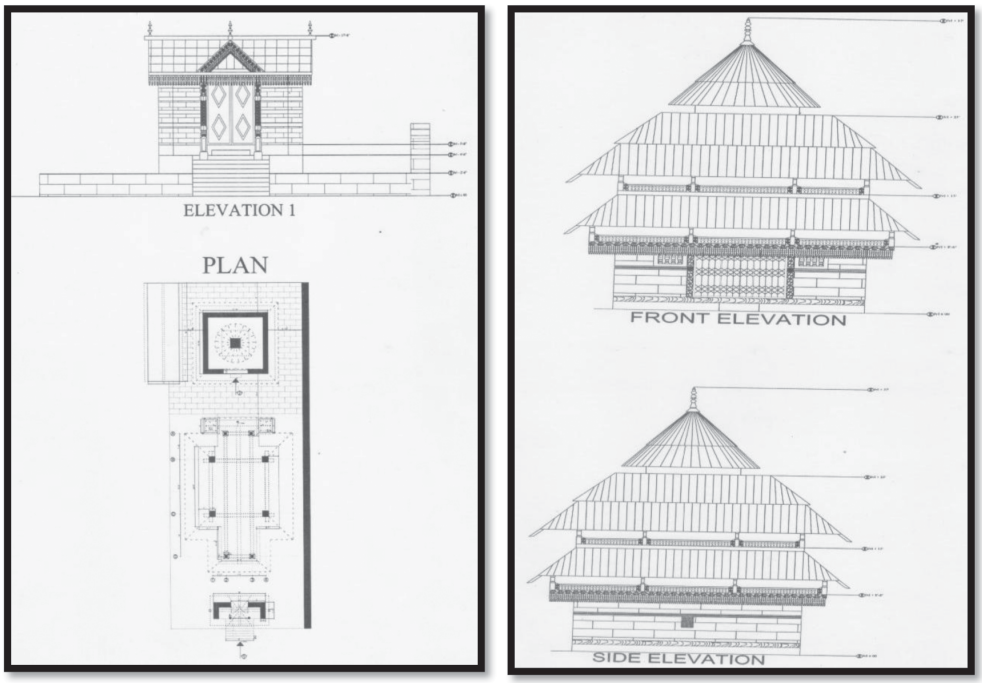


Figure 1: Architectural Plan of Tripura Sundari Temple



Figure2 : Tripura Sundari Temple - Elevation and Mandapa

Sandhya Gayatri Temple :

Another wooden architectural marvel is visible in the Sandhya Gayatri temple, located at Jagatsukh, ancient capital of Kulu in Himachal Pradesh. Regarding its original architectural form scholars are of different opinions. Herman Goetz has expressed that the original temple belongs to a style which had developed during Ayudha dynasty in Kanauj. From the inscriptional record it is evident that this later structure was built during 1428 A.D. It is believed that the temple was built during fifteen century by Raja Udhrana Pal. But some sculptural pieces found from the temple site indicate that origin of the antiquity of this temple belongs to a much earlier period precisely 8th/9th century.It is probable that Udhrana Pal renovated this temple later on during his time.

Out of the original structures of Sandhya Gayatri temple only walls, gate way and the subsidiary chapels have remained intact. The present day Sandhya Gayatri temple shows a single shrine with a gabled roof. It is a rectangular shrine built with stone and timber having wooden pillars, within a low stone enclosure while the frontal courtyard leads to the main temple which stands on a high plinth.

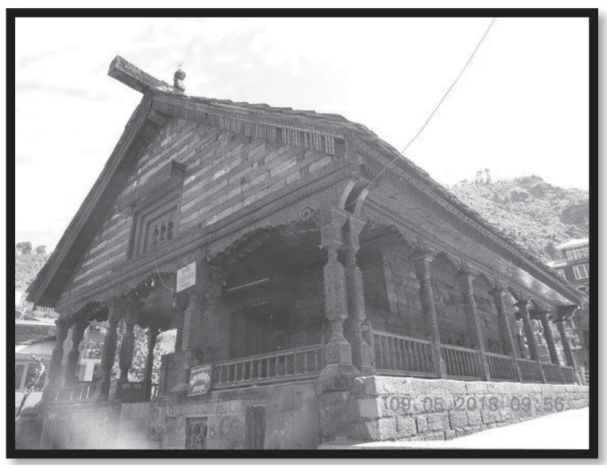


Figure 3: Sandhya Gayatri Temple

An open varanda or porchis surrounded the shrine from four sides of which frontal portion serves as*mandapa.* The porch is enclosed by a number of exquisitely carved wooden pillars. The outer wall of the main temple is built with huge blocks of stones, placed according to their weight and balance although mortar has been used to keep the stones in place. The temple architecture is characterized by typical village huts, constructed with wood

and timber.In the Himalayan region, the houses are generally made of wood with a sloping stone slate roof for protecting the structure from heavy rain and snow. As temples have eventually evolved from folk houses, the architectural pattern exhibits a significant resemblance with them. The wooden pillars and the façade of the entrance are majestically carved.

The roof is absolutely built in gabled pattern of which the frontal part is built in local kath-kunistyle. This kath-kuni style of construction is visible in the village houses in the Beas river valley. The slate stones are placed at the two sides of the slopes of the roof supported by a huge stone beam which is placed in the middle. The temple is famous for its excellent wooden carvings. The Sandhya Gayatri temple has been considered as one of the best temples of this region.

Conclusion :

The state of Himachal Pradesh is rich in traditional buildings of which the vernacular religious structures occupy a special position. The area of our study has produced a number of wooden vernacular temples with diverse architectural features. The temples of this region not only show the superb indigenous constructional engineering but at the same time they reflect the ethos of life of the hilly people. These temples symbolize the characteristic spirit of the hilly culture which has been manifested through their unique creation of this indigenous architectural form.

References:

Handa, O. C. 2001, *Temple Architecture of the Western Himalaya: Wooden Temples,* New Delhi, Indus Publishing Company.

Nagar, Shanti Lal. 1990, *The Temples of Himachal Pradesh,* New Delhi, Aditya Prakashan.

Roy Choudhury, P.C.1981, *Temples and Legends of Himachal Pradesh,* Bombay, Bharatiya Vidya Bhavan.

Sing, M.G. 1999, *Wooden Temples of Himachal Pradesh,* New Delhi, Indus Publishing.

Bio Profile of the Author :
Former Professor & Head of The Department
Department of Archaeology,University of Calcutta
Email: durgabasu57@gmail.com

A Study of Environmental Archaeology of The Site Jagannathpur in Galudih Area in Purbi Singbhum District of Jharkhand

Debjani Mahato[1]

Debasis Kumar Mondal[2]

Abstract : *Environment is one of the important aspects of study of man both in past and present. Environment plays an important role in biological as well as cultural evolution of man. Natural and cultural elements are very much interrelated to each other and used to study different aspects of man. Since 19th century interrelationship of natural and cultural elements of past human societies are focussed by the Archaeologists. Present paper is an attempt to study different aspects of past environment in which prehistoric people lived for a long period of time. The focus of the study is on the prehistoric site Jagannathpur in Purbi Singbhum district of Jharkhand. The site was discovered by A. K. Ghosh of the Department of Anthropology, University of Calcutta. An attempt is made to reconstruct the environmental background in which prehistoric people of the area lived and adapted themselves.*

Keywords: environment, archaeology, stratigraphy, geomorphology, soil, sediments, culture

Introduction : Environmental archaeology is a sub-field of archaeology which deals with the past human interaction with its surrounding natural world including plants, animals and ancient landscape. Study of paleoenvironment

began in the early 19th century. Earlier disciplines like paleogeography, palaeobotany, paleoclimatology studied past environment. Environmental archaeology became a part of the discipline archaeology in the early part of 20th century.

Functional-Processual approach in environmental began to be used in archaeology during 1830s. This was at the time that Steenstrup was discovering Danish bog sites and tried to relate it with forest types (Trigger, 2006). In the beginning of 1848, Worsaae, Steenstrup and Forchhammer pioneered in the study of archaeological findings collected from kitchen middens in Denmark. They studied the materials and related the cultural element with contemporary paleoenvironment and ecology. Soon methods like varve analysis and palynology were discovered. These aided the study of ancient deposits. Paleoenvironment was reconstructed with the help of geological formation and associated flora fauna. Multidisciplinary approach of geography, ethnology and botany promoted the holistic study of culture. This led to the functional-processual view in studying culture against environmental settings. This was a major development in the study of human behaviour and its change (Trigger 2006). In the early part of twentieth century environment study began in archaeology (Trigger 2006). By the middle of twentieth century prehistoric economy was seriously studied (Adams 1988; O' Connor and Evans 2005). Proper use of the term 'Environmental Archaeology' began around late 20th Century by a number of scholars like Shackley (1981), Boyd (1990), Cameron (1993), Reitz (2008) and Campbell (2011). Environmental Archaeology was defined in various ways, such as, an interaction between human and environment (Shackley 1981; Boyd 1990) and as an application of archaeological and environmental theories and methodologies (Cameron 1993). While others dealt with the diverse scope of studying environmental archaeology. These were study of relationship between human and their surrounding physical, chemical and biological environment; human nutrition and health, varied system human behaviour and method of procuring resources (Reitz et.al. 2008).

Environmental archaeology is the study of the past human economy and environment in the background of ecological, cultural economic and climate change. A number of earth sciences and natural sciences help to understand the past environmental background in which prehistoric people survived.

Environmental archaeology also deals with various aspects like environment at the time of occupation and changes with due course of time, the ways human procured and prepared food, the process in which people interacted with the environment, places of habitation in seasonal camps or for long period of time (Campbell 2011).

After the first discovery of palaeolith from India by R. B. Foote in 1863, Indian prehistory was reborn when the Yale Cambridge Expedition under the leadership of De Terra made an extensive survey on geological, climatic, botanical and palaeontological evidences in Kashmir Valley, Potwar plateau in Punjab, Narbada valley in Hoshangabad and Kortalayar valley near Madras (Sankalia 1962). Subsequently a number of archaeological studies were carried out in different parts of the Indian subcontinent. In order to study the cultural chronology, most of the surveys incorporated geological context and paleo-climatic background of the prehistoric and protohistoric cultures in different parts of India. However limited efforts have been made on environmental archaeology. Three sub-fields are important in the study of environmental archaeology i.e. zooarchaeology, archaeobotany and geoarchaeology. Present paper mainly deals with the geoarchaeological study of the site to reconstruct past man and environment relationship at the locality.

Eastern India has a very rich prehistoric cultural heritage. The Chotanagpur plateau is an old land mass and rich in resources which attracted the prehistoric people to live for a long period of time. The environmental background was one of the prime factors for continuous human habitation in the region. Present focus is on the prehistoric site Jagannathpur in Galudih area in Purbi Singbhum district of Jharkhand. As an environmental archaeological approach, the study incorporated different geological, geographical as well as anthropological and archaeological methods to understand the past environmental background in which prehistoric people adapted them. The study may yield different aspects of past environment and prehistoric culture of the area studied in specific and the Singbhum region in general.

Objective : Main objective of the study is to reconstruct the palaeoenvironment of the studied area, so as to understand distribution pattern of industrial assemblages and the development of cultures of prehistoric men of the area, on the basis of stratigraphy, geomorphology and geography.

Literature Review : Palaeoenvironmental studies are carried out worldwide since post World War II in connection with geographical and geomorphological researches. Notable among them are Woldstedts (1954-58), Charlesworth (1957) and Flint (1957). Their focus was mainly on stratigraphic and climatic interpretations. Later on Zeuner (1958), Laming (1952), Brothwell and Higgs (1963) and Butzer (1966) laid attention on prehistoric dulture by examining man and environment relationships. Recently Orchard and Marie (2001) conducted environmental archaeological works at Gwaii Hanas in Queen Charlotte Islands of British Columbia, and in Aleutian Islands of southwest Alaska. They have used recent methods for collecting data on environment from archaeological sites.

Research on environmental archaeology was carried out since 1970s. Some of the remarkable works are done by Rajaguru and Guzder (1973); Farswan (2002); Sarma and Joglekar (2006-2007); Naik and Deotare (2008-2009) and other scholars.

Present study has its focus on Galudih area in Purbi Singbhum district of Jharkhand state. Prehistoric research in Singbhum region was initiated by Captain Beeching who discovered the first Neolithic implement in Singbhum in 1868. V. Ball visited Beeching's site and collected stone tool. Later on Anderson (1917) made an extensive study of prehistoric culture of East Singbhum. P. Mitra in 1924 discovered an *in situ* hand-axe in old alluvial deposits on a tributary of the Subarnarekha near Ghatsila. In 1941 Murray discovered Paleolithic artifacts from Eastern Singhbhum. S. C. Sinha in 1951 discovered some Palaeolithic implements from Northern Singhbhum. D. Sen and A. K. Ghosh worked in the area since 1959. Later R. Ray (Ray et al, 1993) also conducted a number of prehistoric field surveys in the area with emphasis on Mesolithic, Neolithic and Chalcolithic cultures.

Ghosh (1970) divided the Palaeolithic cultural zone of Singbhum district into five groups, namely, Chandil, Chaibasa, Sini, Ghatshila and Jamda (Gua). He included Jagannathpur in the Ghatshila Group. His emphasis was on prehistoric culture. He found various types of *insitu* tools and artefacts lying in different geological strata. Such findings threw light on the palaeoenvironment of contemporary prehistoric cultural milieu. Ghosh (1970) found 31 tools from the deposit of detrital laterite at the site Jagannathpur. Crude choppers came

from lower part of the deposit. Handaxes, scrapers and well-made choppers were found from upper part of detrital laterite while the artifacts of the Flake Industry were recovered from the upper part of Upper Gravel. Ray (1978), a geologist had studied the basal formation of the deposits at the site. He observed a succession of wavy topography of sandstone and shale, followed by a rough irregular topography of hard shales which formed table like platform made of alternative shale and limestone deposit. The rocks belong to the Kolhan series and are roughly dated about 1500MY.

Methodology : Both primary and secondary data were used in the present study. Primary data was collected from the field and secondary data was collected from the existing documents and maps.

For collection of primary data archaeological field work methods and techniques were used. Surface survey was carried out by foot with the help of compass, GPS (Global Positioning System) and topographical maps. Such survey helped to understand the geographical landscape, geomorphological features of the area as well as the geological depositions in the form of stratigraphic sequences. A grid was laid down measuring 30 ft X 30 ft, divided into 25 squares, each measuring 6 ft X 6ft. This was done for understanding the pattern of cultural assemblage at the site.

Stratums in stratigraphic sections were identified by colour, composition and texture following Karl W. Butzer (1966) and Ghosh (1970). Analysis of sediments were done with a focus on stratification, sorting, orientation and degree of consolidation. Analysis of different types of geomorphological features was done according to Goudie (2004) and Huggett (2007). Morphometry of the sediments were done after Cailleux (1956) and Luttig (1956).

Area under study (Figure 1) : The present study was conducted at Jagannathpur in Galudih area of Ghatshila block in Purbi Singbhum District of Jharkhand. The site is under the jurisdiction of Galudih police station and Mahulia (Galudih) post office. Nearby village is Kalimati at the north and Jagannathpur village at the south of the site.

Jharkhand is situated on the Chotanagpur plateau region. The older formations are of Archaean rocks belonging to Pre-Cambrian period and Gondwana rocks belonging to Palaeozoic period. The common minerals and ores found in the area are coal, bauxite, limestone, graphite, mica, uranium, iron and copper (National Atlas Plates, Survey of India Maps 1991).

Climate of the area is tropical with humid to semi humid condition. Average rainfall is 1000-1500 mm. The vegetation is tropical deciduous type rich in Sal (*Shorea robusta*). The vegetation includes acacia, date, tamarind, mango and some bushes and shrubs. Common fauna are monkey, jackal, fox, hyena, buffalo and cow. Common animals in jungles are black bear, sloth bear, elephant, Indian wild boar, tiger, leopard and deer.

The soil type is mostly lateritic in nature while alluviial soil is found mainly in agricultural lands. Grass lands are found in flat and open areas. The area is predominately inhabited by tribal communities like Santal, Munda and Ho.

Site Jagannathpur (Figure 2) : The site Jagannathpur (22°37¹N and 86°25¹E) lies at an altitude of approximately 300ft. from MSL by the side of the river Kundra, locally known as *Kondor Nalha.* Kundra is a tributary of river Subarnarekha. It originates at Paharpur and flows over a long distance of about 6 miles from the north-east and within 3 km. from the site, it merges into River Subarnarekha. stream is full during rainy season. The stream is narrow near Jagannathpur because of a meander.. The villagers made dams at certain intervals to reserve the water for daily use and also for the irrigation purpose.

On the right bank is a huge deposit of silt over the bedrock. On the left bank a gravel bed is exposed. Palaeolithic cultural remains like hand axe, chopper, cleaver, side scraper, end scraper, notch scraper, blade, point etc. are found from the gravel bed. Soil type is sandy in nature and yellowish in colour. The vegetation found in the area indicates dry climate and river becomes dry during the summer season. Perhaps proximity to source of water, availability of tool making raw materials, games in the jungle attracted pre-historic people to live in the area for a long time. The site is encircled by the stream, which gave protection to the people.

Stratigraphic sequence : Environmental factors are responsible for the formation of deposits. Stratigraphic analysis is useful in archaeology because three principles of geology i.e., law of superimposition, law of uniformitarianism and sequence. The stratigraphy is used in prehistory to date artefacts found from the strata with reference to other layers and the related consecutive palaeoenvironment of the area (Butzer 1966).

The section at Kondor Nalha, Jagannathpur shows the presence of an undulated deposit of loose gravel lying on bedrock, which was formed during an intense wet pluvial phase, when water in stream was more in volume and velocity. Some gravels are dislocated and fell on the stream bed due to erosion. Bedrock is 5^1 in height. The colour of the bed rock became black due to water logging in rainy season. Bed rock is overlain by a bed of gravel, 2.5^1 in thickness. The gravel bed yielded Palaeolithic tools like hand axe, chopper, cleaver, side scraper, end scraper, notch scraper, blade, point etc. Cultural remains of Flake industry have also been found from this layer. Gravel bed is topped by a silty clay layer of 2.5^1 thickness.. The section shows alternating gravel and silt beds in sequential order, indicating alternating phases of wet (gravel) and dry (silt) periods (Figure 3).

Besides the stratigraphic section studied at Jagannathpur, different sections were also observed in and around Galudih area, on the left bank of Subarnarekha River near the Bridge Colony site, at the foothills of Lakridungri hillock and on the right bank of Garra nalla.

One of the sections observed at the left bank of the river Subarnarekha comprises of three strata, namely bedrock (formed during Pre-Cambrian Period) overlain by gravel bed formed during wet phase. This gravel bed is topped by a silt deposit representing dry phase. Gravel lens is found in the upper silt bed, which indicated by short wet phases at the end of Pleistocene (Figure 4). Alternating gravel and silt beds were deposited during the Pleistocene climatic fluctuations (Ghosh 1970). Another section was observed on the left bank of the river Subarnarekha, which comprised of silt deposit mixed with with ghutting. Ghuting indicated end of Pleistocene epoch and beginning of Holocene period. Above the silt layer a thin deposition of alluvium was also seen in some areas which was probably formed during the Post-Pleistocene period (Ghosh, 1970). (Figure 5).

Two sections were studied at the foothills of Lakridungri hillock. First section comprises of alternating gravel and silt deposition indicating wet and dry phases. Gravels are unsorted. Pebbles and gravels of different sizes are found lying in the sandy matrix mixed with kankar. The silt is yellowish in colour (Figure 6). The second section was also observed at the foothills of Lakridungri, which comprised of lateritic gravels mixed with the laterite (Section 7). According to Ghosh (1970) this is the most ancient Pleistocene sedimentary unit of the area. Its formation started from late Tertiary (Pliocene) period and continues up to Lower Pleistocene period. It consists of pebble-size fragments of lateritic gravels; sometimes hard conglomerate was also formed. The pebbles were derived from primary laterite which was formed during the late Tertiary and early Pleistocene period. Huge deposition of mottled clay has also been noticed in the area of Lakridungri hillock. This mottled clay was formed during Lower Pleistocene period (Ghosh 1970).

The right bank of the Garra River shows deposition of gravel bed, silt bed and clay bed deposited in sequential order on the bed rock (Figure 8). Gravels are loose found in sandy matrix mixed with kankar. The gravel bed is topped by a silt bed which is reddish in colour. On the top of the silt a clay deposition was noticed which was formed during the dry phase of Upper Pleistocene period (Ghosh 1970).

An attempt has been made to correlate the prehistoric cultures found from the area in respect to stratigraphy, modified after Ghosh (1970). Lateritic gravels and mottled clay are found in upland areas near the hillocks. These were formed during Wet (lateritic gravel) and dry (mottled clay) climatic condition during Pliocene up to Lower Pleistocene and Lower Pleistocene period respectively. Lower gravel conglomerate (Wet phase) and Lower silty clay (dry phase) were formed during Middle Pleistocene period. The development of Acheulian technology from Acheulian I to Acheulian II are found in this phase. Upper loose gravel (wet phase) and upper clay (dry phase) were formed during Upper Pleistocene period. Here we can find the development of flake and flake blade technology from the final Acheulian or Acheulian III. Flake tool tradition was found from the junction of Upper loose gravel and upper silty clay which later on developed in to flake blade culture. At the site Jagannathpur, artefacts were found from the upper loose gravels and tool typology shows a deccline

of Acheulian technology and development of flake technology and introduction of few blades. Recent alluvium belongs to the Holocene deposition and it yielded microliths (Table 1).

Geomorphology : "Geomorphology is the study of different landforms and the processes that create them" (Huggett 2007). The present area studied belongs to the humid subtropical region and mostly shows fluvial landscapes. The area is undulating in nature and situated on the plateau area an arm of Dalma range extends from North-East to South-West direction. A schematic drawing of the cross section of the area is drawn to understand the geography and geomorphology of the site Jagannathpur (Figure 9).

The area is mostly formed due to erosional and depositional activities of the stream flowing through the area in the past as well as present. The site is undulated, sloping towards the river. Maximum height is found at the top of the silt layer. This silt layer gives indications of presence of comparatively dry phase which was thought to be deposited probably during the Upper Pleistocene Period (Ghosh 1970). A single loose gravel layer was found lying on bedrock. At present the surface is dissected. The Quaternary formation was laid over Precambrian formation and bed rock.

Soil types : Types of soil are good indicators of the environmental condition that once prevailing in the area. The soil type found in the area is primarily lateritic soil. Lateritic soil is formed in humid tropical and sub tropical areas. The colour varies from reddish to yellow because of high iron oxide content. Exposed surface becomes blackish-brown. Prolonged process of tropical weathering (laterization) of parent rocks produced thick deposition of laterite soil during continuous wet climatic condition. The lateritic soil is formed during heavy rainfall with alternative wet (pluvial) and dry (interpluvial) periods. Lateritic soil lacks fertility. However, agriculture would be possible by good manure and irrigation.

Alluvial soil is also found in the form of silty clay deposits in some area. Alluvial sediments (alluvium) is formed from the weathering of pre-existing sediments and carried by flowing water as suspended particles and ultimately

deposited when volume and velocity of the flow of water decreases. Alluvium is deposited ever since the stream existed in the area. Gravels were formed during a wet phase when there more water in the stream and velocity of water was strong. Deposition took place when dry period prevailed and volume and velocity of water is less. The sedimentary characteristics of modern alluvium are used to interpret the origin of ancient alluvium. At present alluvial silt deposited along the floodplains are much fertile for the agriculture (Goudie 2004).

Study of sediments : Study of sediments is very crucial for understanding of environment which are also important in understanding of macro setting of the sites and stratified culture. Palaeontological evidences also contribute to the reconstruction of past climate. Detail description of the area included soil zones and morphology of the land. Sediments are analysed on the basis of stratification, sorting, orientation and degree of consolidation (Butzer 1966).

Stratification

There are different types of stratification like cross bedding, undulated bedding, inclined bedding and horizontal bedding. In the present study undulating bedding, horizontal bedding and inclined bedding are noticed. Undulating beds are found in stream deposits and indicate swift and irregular flow of water. Pebbles and gravels are also laid down horizontally by laminar flow of water. Up to 2.5 cm. thick beds are formed during moderate flow and thick beds exceeding 5 to 10 cm. indicate violent torrential flow (Butzer 1966). In the present studied sections gravel beds are thick and indicate strong flow during the pluvial environmental condition.

Sorting

Sorting of various sized components of clay, silt, sand and gravel in the beds depend on the flow of the stream. The coarser materials are deposited first and finer materials are swept further downstream. Coarser stones are water borne and smoothened into pebbles. These are deposited when water in stream is reduced. Pebbles indicated pluvial climate. During period of gentle flow

(inter pluvial dry climatic condition) fine silt is laid down. Graded bedding is marked by progressive decrease in particle size formed during the flood level erosion and subsequent deposition due to gradually declining velocity of water. This type of flood condition was also found in the area under study.

Orientation

Orientation of the beds or gravels also provide information. During transportation pebbles become rolled and their major axis is oriented perpendicular to the direction of movement. Orientation of the gravels shows the dominance of sliding motion.

Degree of consolidation

Degree of consolidation also gives the information about the past climate. Cemented gravels were noticed at some places indicating wet climatic condition and continuous water logging (pluvial climate). Sediments found in the area are consolidated and semi-consolidated indicating the wet climatic condition (pluvial phase).

Morphometric Analysis of Different Sediments (Table 2) : Different types of gravels found from the site were analysed. Length (L) of the gravel varies from 6.5 cm to 25 cm. Width (l) varies from 4 cm. to 15 cm. and Height (E) varies from 0.5 cm. to 5 cm. (Table 2). Two types of indices are calculated following Cailleux (1956), i.e. Index of rounding (2r.1000)/L and Index of flattening (l+L)/2E) four types of gravels are found, such as, rounded and square; spherical and almost flat; subangular and flattened; and subangular and square in nature. Transport of motion also has been calculated following Luttig (1956). The value of E/L or E/l indicates (also can be shown in %) the range of transport motion. In case of E/L below 50% indicates dominance of sliding motion, 50% to 60% indicates both sliding and rolling motion, and above 60 % indicates dominance of rolling motion. In case of E/l less than 65 % indicates dominance of sliding motion, 65% to 75% indicates both sliding and rolling motion and above 75 % indicates dominance of rolling motion. In the present study both the values of the sample gravels indicated the dominance of sliding motion while transportation dominated over rolling motion.

Artifacts Found at the Site : A grid (30 ft. X 30 ft) was laid dividing into 25 squares each measuring 6ft. X 6 ft. to understand the distribution pattern of the assemblage found from the site. The assemblage is comprised of different types of Palaeolithic tools, cores, flakes and a huge quantity of debitage. Out of 1813 artefacts found from the site debitages showed the highest frequency (77.11%) followed by cores (11.14%), raw materials without work (8.05%) and finished tools (3.70%). The frequency of debitages, core, raw materials and tools indicated presence of factory site in the area. Prehistoric men once stayed at the site and collected river pebbles for making of stone tools (Table 3).

The finished tool types comprise of chopper, handaxe, different types of scrapers (side, end, side-cum-end and notch), blade, point, pick, knife, anvil, hammerstone and a few unfinished tools. Side scrapers are in maximum frequency (49.25%). End scrapers, side-cum end scrapers and notches are 1.49%, 5.97% and 2.98% respectively; while point comprises of 8.5% of total tool frequency. Heavy duty tools are hand axes (5.97%) and chopper (2.9 %). Blade and knife show the minimum frequency 1.49%. Two pick like implement and two hammer stones and an anvil are also found from grid at the the site (Table 4).

Overall assemblage indicates the flake tool tradition of Upper Pleistocene period. Frequency of flake tools shows an increase with the subsequent decrease of heavy-duty tools. They used both free flaking and controlled flaking techniques for removal of flakes. Both Clactonian and Levalloisian technology were used for making flake tools. Quartz was predominant raw materials though quartzite was also used to make tools.

Tool typology and functions of the tools provide evidences about cultural practices and behaviours of prehistoric men. These suggest how early men adapted themselves to the changing environment. The distribution of tools, cores, debitage and raw materials on the sites revealed facts about past human behaviours, which they made and used to cope with the contemporary environmental conditions. Presence of anvil and hammer stone on the site shows how prehistoric men used different techniques for shaping the desired tools of their need. Each tool type has specific functions. Hand axes are heavy duty tools that might have been used for digging up roots, stabbing or piercing and scraping or skinning of game fulfilling a multipurpose use. The choppers were probably used for chopping or butchering the bones of either hunted or

scavenged animals. Different types of scrapers made on flakes were probably used for cutting and skinning of the games and making into small pieces to carry it easily back to the camp (Oakley 1952). Knife and blade were probably used for efficient cutting and skinning of animals while points were probably used as an arrow to kill fast moving animals while hunting by probably hafting it with a stick (Braidwood 1957). In addition to hunting preparation of plants as food, and for making shelters out of wood and branches were the works of the tools. Probable functions of the tools indicate that the people who lived in prehistoric period in the area were in hunting gathering stage. They maintained their livelihood by utilizing natural resources from the surrounding. Game animals are very common in surrounding jungle areas even now. Big game hunting as well as small game hunting was in practice. The site is also favourable for hunting when the animals used to come for water. Gathering of edible roots and fruits from the jungle also supplemented prehistoric diet. Plant and animal resources which make the prehistoric diet also depended on environment. On the other hand, plant and animal resources are also useful to know the past environment. The environment is reconstructed and it was seen that humid and dry and primarily deciduous types of vegetation were common in the area. Local plants also give some clues about the past environment. Presence of date plum and thorny trees like jujuba indicate dry climatic condition. Grass land also has been noticed in the area. This also indicates the past dry climatic condition. Small games like deer, hyna, jackal, wild cat were available in this grass land. Big games like elephant, wild bear inhabited the dense jungle areas of Dalma range. These animals are also found at present. So, the tool types, its functions provided information man and environment relationship of the prehistoric times.

Discussions and Concluding Remarks : Present paper deals with the environmental archaeological study in Galudih area with a focus on the site Jagannathpur in Purbi Singbhum district of Jharkhand. The site is located on an undulated land by the side of the River Kundra. The aim is to reconstruct the past environment with the help of geoarchaeological methods. The evidences of geomorphology, stratigraphy, sediments and cultural remains are used to

understand the environment during the prehistoric times. The stratigraphy consists of a set of gravel bed and silt beds belonging to Upper Pleistocene Period. Palaeolithic tools were found from the Gravel layer.

The analysis of sediments was made by calculating indices of roundness and flattening suggested presence of alternative wet and dry phases in the area during Upper Pleistocene period. The types of gravels show the dominance of sliding motion during transportation.

Soil type is also a good indicator of the vegetation types of the area. Subsistence pattern of the prehistoric people is also dependent on the vegetation pattern of the area. Soil type, vegetation and subsistence pattern of early man are always interdependent on one another.

The distribution of cultural remains of prehistoric men found from the area was studied by grid method. The site was primarily a factory site. Cultural assemblage shows the presence of heavy-duty tools like hand axe, chopper and light weight flake tools. Flake tools are predominant. An anvil was found. Large quantity of debitage, unfinished tools and hammer stones were found around the anvil. Prehistoric men made stone tools with the pebbles and gravels collected from the river beds.

Both geological and cultural evidences revealed the picture of man and environment relationship in the past and adaptation of man with the prevailing environment.

In future this study could be extended in its scope and be made more effective by increasing the sample size of sediments, physical and chemical analysis, spatial distribution of the site. Zooarchaeological and palaeobotanical study may enlighten more hidden factors of past environment, biome and culture. Ethnoarchaeological study and transdisciplinary approach is recommended for further study. Further investigations in the area may yield valuable information about bio-cultural evolution of human in the background of man and environment relationship in the region rich in prehistoric evidences in Chotanagpur plateau.

References :

Adams, R. M.1988. Introductory remarks: Spatial and temporal contexts. In: J. L. Bintliff and D. A. Davidson and E. G. Grant(eds.), *Conceptual Issues in Environmental Archaeology.* pp.1-15. Edinburgh: Edinburgh University Press.

Anderson, C. W. 1917. 'A Note on Prehistoric Stone Implements Found in the Singhbhum District', *Journal of Bihar Orissa Research Society,* 3: 349-362.

Ball, V. 1868. 'Stone Implements Discovered in Singhbhum', *Proceedings of The Asiatic Society of Bengal*: pp. 177.

Beeching, C. 1868. 'Notes on Some Stone Implements Found in the District of Singhbhum', *Proceedings of The Asiatic Society of Bengal*: pp. 177.

Boyd, W. E. 1989. 'Towards a conceptual framework for environmental archaeology: Environmental archaeology as key to past geographies', *Circaea*, 7(2): 63-79.

Braidwood, R. J. 1957. *Prehistoric Men*. Chicago: Chicago Natural History Museum Press.

Brothwell, D. R. and E. S. Higgs. 1963. *Science in Archaeology*. London: Thames and Hudson.

Butzer, K. W.1966. *Environment and Archaeology: An Introduction to Pleistocene*. Chicago: Aldine Publishing Company.

Cameron, D. W. 1993. 'Uniformitarianism and prehistoric archaeology', *Australian Archaeology*, 36: 42-49

Campbell, G. and L. Moffett and V. Straker. 2011. *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation*. Swindon: English Heritage Publishing.

Charlesworth, J. K. 1957. *The Quaternary Era*. London: E. Arnold.

Farswan, Y. S. 2002. 'Chemical Analysis of Anthropogenic Soils from the Modern Settlement of Garhwal Himalaya', *Proceedings of the Indian History Congress,* 63: 1317-1320.

Flint, R. F. 1957. *Glacial and Pleistocene Geology*. New York: J.Wiley.

Ghosh, A. K. 1966. Implementiferous laterite in eastern India. In: D. Sen and A. K. Ghosh (eds.), *Studies in Prehistory: Robert Bruce Foote Memorial Volume.* pp. 149-162. Calcutta: Firma K.L.M. Pvt. Ltd.

Ghosh, A. K. 1970. 'The Palaeolithic Cultures of Singhbhum', *Transactions of American Philosophical Society*, 6(1): 3-68.

Goudie, A. S. 2004. *Encyclopaedia of Geomorphology*. London: Routledge Taylor & Francis Group.

Huggett, R. J. 2007. *Fundamentals of Geomorphology*. Oxon: Routledge Taylor & Francis Group.

Laming, A. 1952. *La decouverte du passe: Progres recents et techniquques nouvelles en prehistoire et en archeologie*. Paris: A. and J. Picard.

Luttig, G. 1956. *Eine neue, einfache gerollmorphometrische Methode Eiszietalter und Gegenw*, 7:13-20.

Mitra, P. 1926. *Prehistoric India.* Calcutta: University of Calcutta.

Murray, E. F. O. 1941. 'The Ancient Workers of Western Dhalbhum', *Journal of the Royal Asiatic Society of Bengal*, 6(2): 61-104.

Naik, S. S and B. C. Deotare. 2008. 'Value of Non-Pollen Palynomorphs as Palaeo-environmental Indicators from Archaeological Site of Chaul, Maharashtra', *Bulletin of the Deccan College Post-Graduate and Research Institute*, 68: 125-136.

Oakley, K. P. 1952. *Man: The Tool Maker*. London: The Trustees of British Museum.

Orchard, T. J. and Q. Mackie. 2004. Environmental Archaeology: Principles and Case Studies. In: T. J. Pitcher (ed.), *Back to the Future: Advances in Methodology for Modelling and Evaluating Past Ecosystems as Future Policy Goals*. pp. 64-73 Fisheries Centre Research Reports.

O'Connor, T. and J. G. Evans. 2005. *Environmental Archaeology, Principles and Methods*. Stroud: Sutton Publishing.

Rajaguru, S. N. and S. T. Guzder. 1973. 'A Review of Research on Quaternary Sea Level Changes and Archaeological Sites in India', *Bulletin of the Deccan College Post-Graduate and Research Institute*, 33(1):193-207

Ray, R., U. Basu and A. K. Kundu. 1993. 'The concept of Mesolithic stage and an example from eastern India', *Journal of The Department of Anthropology, University of Calcutta,* 1(1): 39-44.

Ray, S. 1978. *Geomorphology of India*. Calcutta: Firma KLM Pvt. Ltd.

Reitz, E. J. and L. A. Newsom and S. J. Scudder and C. M. Scarry. 2008. *Introduction to Environmental Archaeology, in Case Studies in Environmental Archaeology*. New York: Springer.

Sankalia, H. D. 1962. *Prehistory and Protohistory of India and Pakistan*. Bombay: University of Bombay.

Sarma, P. J. and P. P. Joglekar. 2006. 'Archaeology of Early Settlements in Dhansiri-Doyang Valley. Assam: A Study in Regional Perspective', *Bulletin of the Deccan College Post-Graduate and Research Institute*, 66: 441-444.

Sen, D. and A. K. Ghosh, 1960. 'On the Occurrence of Palaeoliths in Singhbhum', *Man in India*, 40(3): 178-191.

Sen, D. and G. S. Ray and A. K. Ghosh. 1962. 'Palaeoliths from Manbhum and Singhbhum', *Man in India*, 42(1): 10-18.

Shackley, M. 1981. *Environmental Archaeology*. London: George Allen and Unwin.

Sinha, S. C. 1951. 'The Discovery of Some Prehistoric Stone Tools in South Manbhum', *Science and Culture,* 17: 164.

Tricart, J. and A. Cailleux. 1956. *Action du froid Quaternaire en Italie Peninsulaire.* Rome:Actes IV. Congr. Int. Quaternaire.

Trigger, B. G.1971. 'Archaeology and ecology', *World Archaeology*, 2(3): 321-336.

Trigger, B. G.2006. *A History of Archaeological Thought*. Cambridge: Cambridge University Press.

Woldstedt, P. 1929. *Das Eiszeitalter. Grundlinien einer Geologie des Diluviums.* Sttutgart: F. Enke.

Zeuner, F. E. 1958. *Dating the Past: An Introduction to Geochronology*. London: Methuen.

Source of Maps :

National Atlas Plates, Survey of India Maps 1991
Web Source: http://www.mapsofindia.com (accessed on 26/04/2020, 13:50); http://www.soinakshe.gov.in (accessed on 26/04/2020, 14:10)

Bio-Profile of the Authors :

[1] UGC-Junior Research Fellow, Department of Anthropology, University of Calcutta
Mail ID: *email87debjani@gmail.com*; Mobile No. 9903586438.

[2]Assistant Professor, Department of Anthropology, University of Calcutta
Mail ID: *anth.debasis@gmail.com*; Mobile No. 98305942442.



Figure 1 : Location of the site Jagannathpur in Political map of Jharkhand [Location of the site is indicated by O]$_2$
Source : https://www.mapsofindia.com/maps/jharkhand/jharkhand.htm

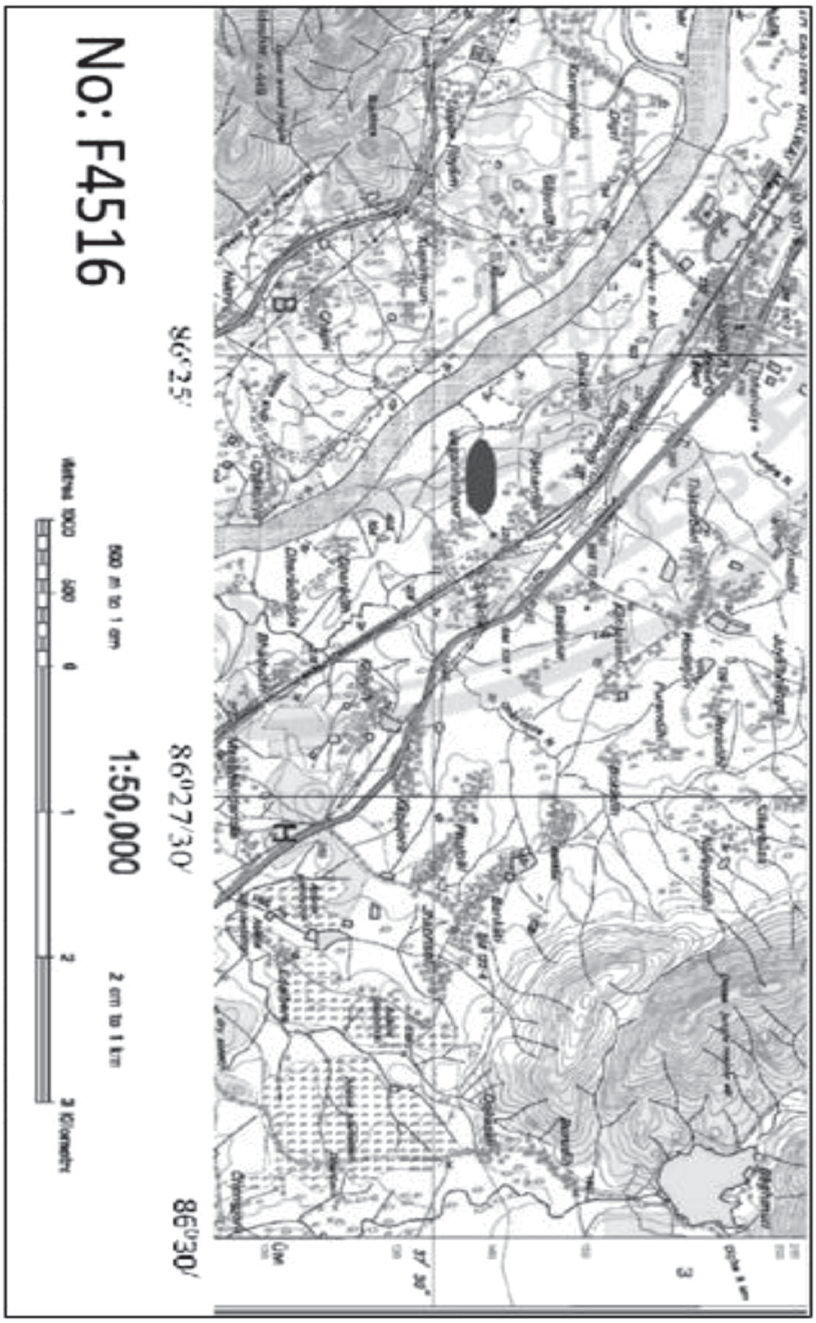


Figure 2 : Location of the site Jagannathpur in Toposheet No.F4516
Source : www.soinakshe.gov.in

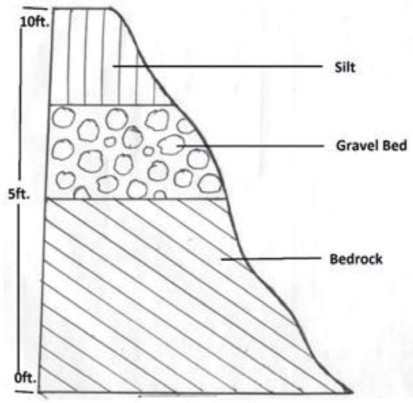


Figure 3: Section I

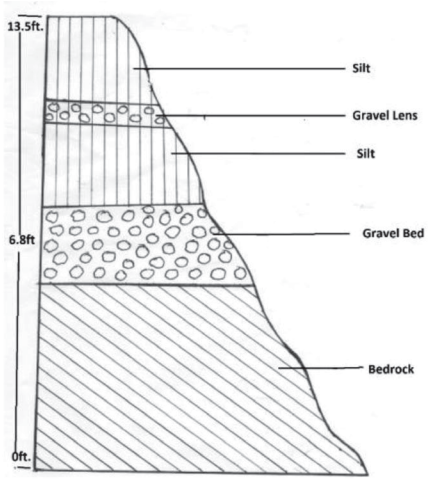


Figure 4: Section II

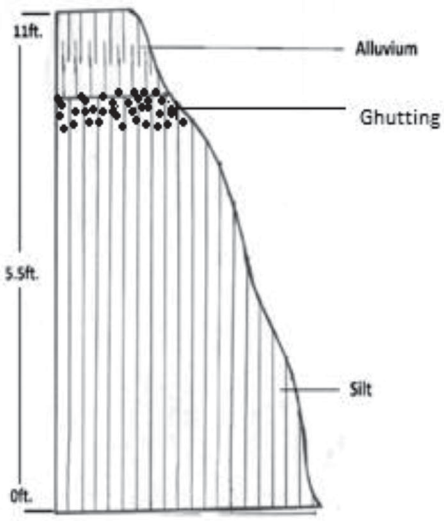


Figure 5: Section III

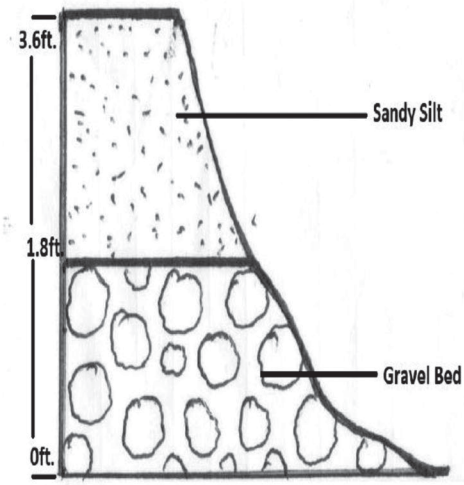


Figure 6: Section IV

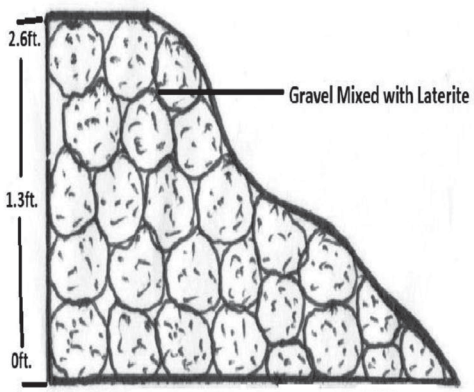


Figure 7: Section V

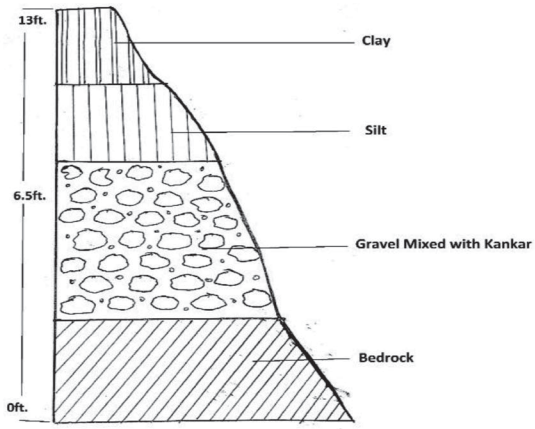


Figure 8: Section VI

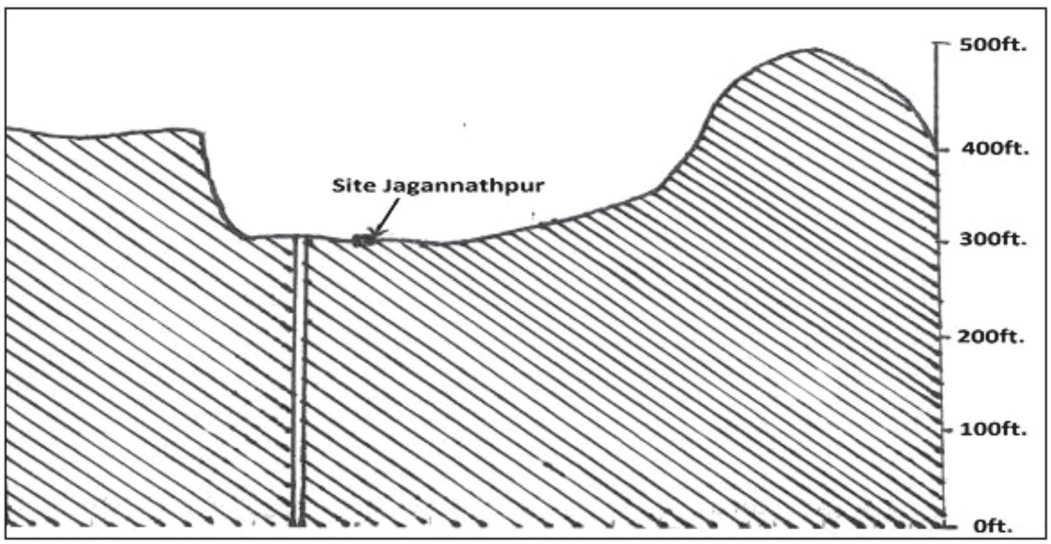


Figure 9: Cross section of the area locating the site Jagannathpur (SW ⇒ NE Direction)

Table 1: Quaternary geological sequence and prehistoric cultural stages of Galudih area, Jharkhand (Modified after Ghosh 1970)

Quaternary stages	Sediments	Climate	Industries
Holocene	Recent Alluvium	Relatively wet	Microliths
Upper Pleistocene	Upper silty clay	Dry	Flake-blade Flake tradition
	Upper loose gravel	Wet	Acheulian III
Middle Pleistocene	Loose silty clay	Dry	Acheulian II
	Lower gravel conglomerate	Wet	Acheulian I
Lower Pleistocene	Mottled clay	Dry	-
	Lateritic Gravel	Wet	-
Pliocne		-	-

Table 2: Morphometric analysis of gravels

Sample No.	Length (L)	Width (l)	Height (E)	Smallest radius of curvature (r)	Index of rounding (2r.1000)/L	Index of flattening (l+L)/2E	Indices of transport motion	
							E/L (%) *	E/l (%) *
1	25	15	5	6.5	520	4	0.2 (20%)	0.3 (30%)
2	6.5	4	1	2	615.4	5.3	0.2 (20%)	0.3(30%)
3	7	7	1	3.5	1000	7	0.1 (10%)	0.1(10%)
4	7.5	4	0.5	1.5	400	11.5	0.1 (10%)	0.1(10%)
5	17	14	4.5	2.5	294.1	3.4	0.3(30%)	0.3(30%)

Index E/L and E/1 also may be expressed in percentage to know the transport motion (Lutting,1956)

Table 3: Distribution of artifacts found from the site Jagannathpur

Artifact	Number	%
Core	202	11.14
Debitage	1398	77.11
Tools	67	3.70
Raw materials	146	8.05
Total	1813	100.00

Table 4: Distribution of tool types found from the site Jagannathpur

Tool types	Chopper	Hand Axe	Side Scraper	End Scraper	Side-cum-End Scraper	Notch Scraper	Blade	Point	Pick	Knife	Anvil	Hammer stone	Unfinished tools	Total
No	2	4	33	1	4	2	1	6	2	1	2	1	8	67
%	2.99	5.97	49.25	1.49	5.97	2.99	1.49	8.96	2.99	1.49	2.99	1.49	11.94	100.00



Plate I : Panoramic view of the site Jagannathpur

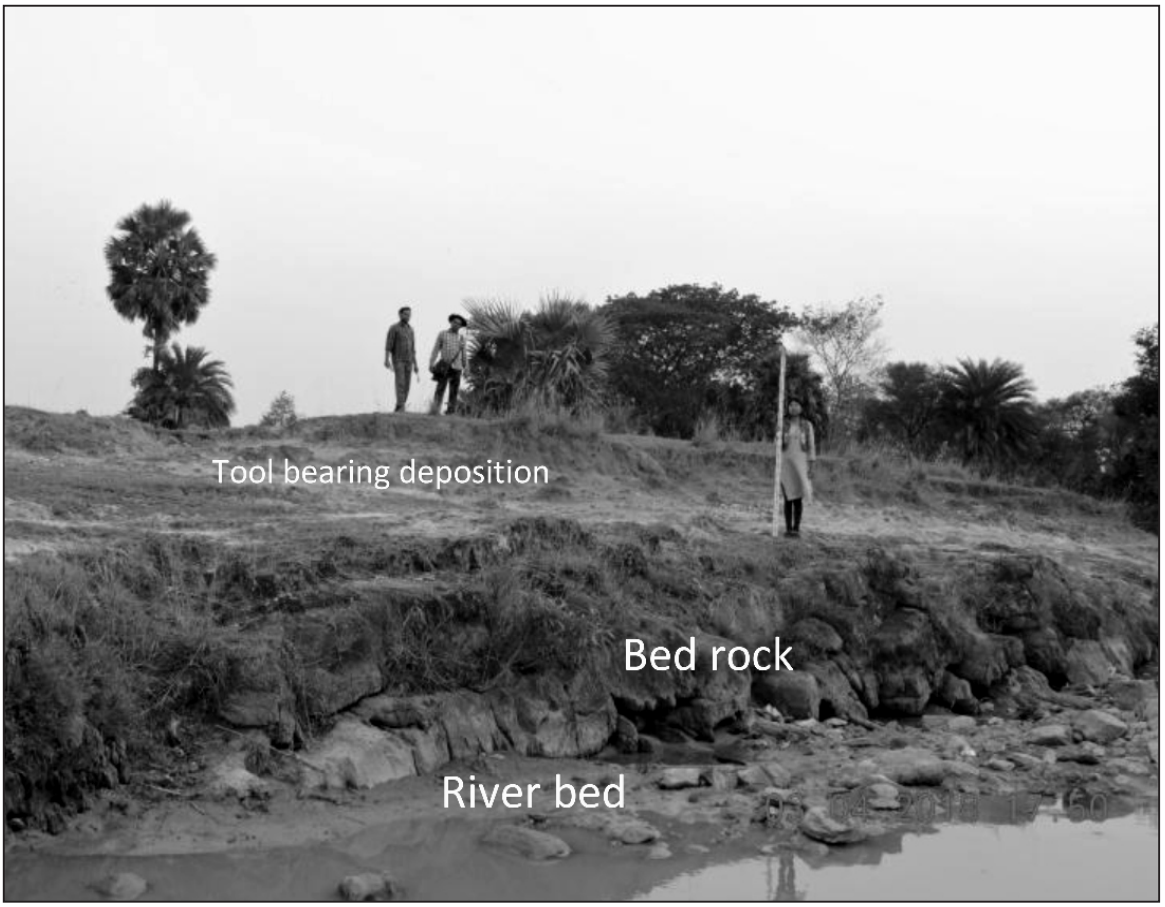


Plate II : Tool Bearing depositio



Plate III : Laying of Grid

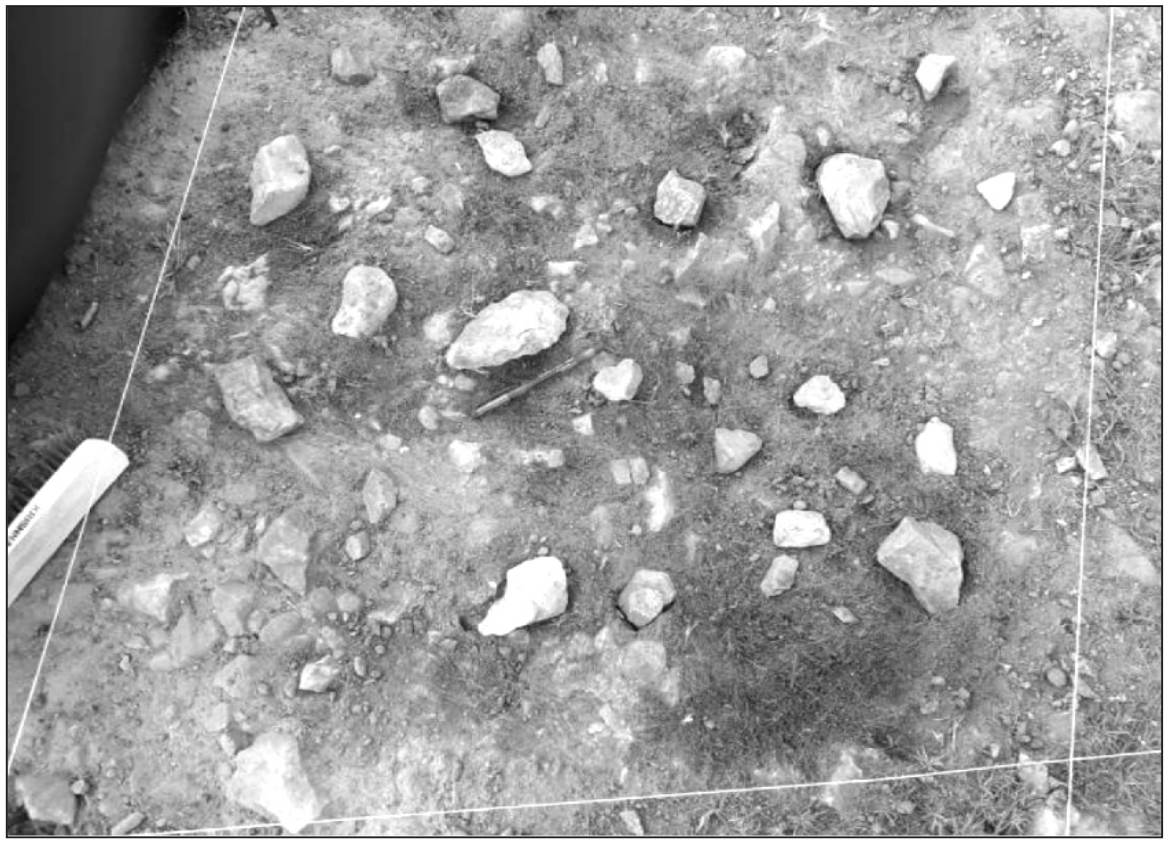


Plate IV : Distribution of artifacts in grid

One Step Forward Two Steps Backward : The Retrogressive Amendment in Indian Arbitration Jurisprudence

Kush Ghai[*]

Dr. Sandhya Verma[†]

Abstract : *In a significant step towards remediation of arbitration ecosystem in India, the Parliament of India passed the Arbitration and Conciliation (Amendment) Act, 2019 making various introductions and changes not only being noteworthy but also ameliorating some previous inclusions of the Amendment Act 2015. Now, that the Amendment Act has come into force, this article tries to critically analyze the provisions of the enactment in light of various developments, evaluating the Raison d'être and the road ahead to become a hub for arbitration in the international arena. In doing so the author broaches the 'Pandora's Box' of complications ought to be kept closed in pursuit of ensuring that the arbitration mechanism in India remains apace with the international standards; further taking into account the various efforts made to fill the lacunae existing in arbitration legislation and to instill values and trust in Indian arbitration community, endeavouring to make India an Arbitration-friendly jurisdiction. In the penultimate part of this piece of discourse, the author attempts delineate the implications of the amendment, the complexities likely to emerge the avenues ahead, closing out the article by pragmatically illustrating solutions to the issues which have emanated or were discounted by the amendment.*

Keywords: Arbitration Amendment 2019, India, Institutional Arbitration, Section 29A, Prospective applicability of Amendment Act 2015.

JEL Classification: K19, K39, K41, K49

Introduction : Arbitration is inexplicably considered to be a solution for unburdening the Courts, an elixir to revitalize the grim state of health of adjudication system, an avenue for speedier redressal of legal contestations and an exemplar of alternative dispute resolution. Further, India has been trying to improve its standing before international economic diaspora, which has reflected in its rankings in the 'World Bank Report on Doing Business.'[1]

Indian Courts have been from distant times reputed as interventionist, and criticized for the gross delays, which has abysmally affected the country, and held it back from attaining a meteoric rise at globe stage, thus consistently shunned to be afforded as a prospective international seat of arbitration. Even the Tribunal at International Chamber of Commerce (ICC) in White Industries case[2] has trenchantly criticized Indian Government and Judicial system for failure to provide 'effective means' for asserting its claims and enforcing rights, bringing mortifies to the credit of Indian systems[3].

A Report was published by Niti Aayog in 2016[4], wherein it was assessed that an arbitration related to disputed in construction sector were disposed off in around five years, and further a period of two and a half year is misspend in litigations in courts related to challenging of award and interim relief, clearly showing the intrusion of the vices of Indian justice system in arbitration too.

The Backdrop of the Amendment Act: A Brief Genesis : The Arbitration and Conciliation Amendment Act 2019, was enacted after taking into consideration the recommendation made by the 'High Level Committee to Review the Institutionalization of Arbitration Mechanism in India'[5] in its report issued on July 30, 2017, under the chairmanship of Justice B.N. Srikrishna.

As aforementioned the Government had made various terms of reference to the Srikrishna committee, such as:

- Reviewing of existing structure of arbitral institution in India, by analyzing their working and effectuality by means of performance analysis.
- Formulation of roadmap through which it is ensured that institution arbitration mechanism is encouraged and fostered.
- Recommendations of reforms in Arbitration and Conciliation Act 1996 and to develop structured and efficacious ecosystem[6].

The committee was constituted by the Government with the objective of ascertaining the various issues affecting the arbitration landscape in India, the roadblocks to the progression of arbitration in India and establishing a robust ecosystem for the international arbitration and institutional arbitration mechanism.[7]

The aggrandizement in International and Cross-Border trade has led to an identifiable upsurge in related arbitration, resulting in spurt of interest, in institutional arbitrations as well as its centers; consequently the private parties have now been heading towards mandatory arbitrations, thus making way for a similar system in India too.

The Amendment Act is in line with the Srikrishna Committee Report which made few proposals:

- Formation of the Arbitration Promotion Council of India for the purpose of laying down guidelines for improvement and restructuring of arbitration jurisprudence in India.
- Appointment of Arbitrator by arbitral institution.
- International Commercial Arbitration be excluded from the purview of section 29A.
- Inclusion of confidentiality in Arbitration.
- Immunizing the arbitrators from legal proceedings which may be initiated against them for any act of omission in the course of arbitration.
- Applicability of the Arbitration & Conciliation (Amendment) Act, 2015[8] to proceedings commencing after the respective Act came into effect.[9]

Sailent Features Of The Amendment Act, 2019 : The Act tries to incorporate various imperative aspects accepted and acclaimed in international practices including, but not limited to constitution of Tribunal, power of granting of interim reliefs, exclusion of international commercial arbitration from the encumbrances of time limits, changes in procedure of setting aside of award, inclusion of confidentiality and protection of arbitrators, and notably, creation of the Arbitration Council of India and entrusting it with the role of accreditation arbitration.

This article delves into few of the changes which have been made by Amendment Act. 2019 particularly – the constitution of arbitral tribunal, time limit for making an award, confidentiality of proceedings, and the Arbitration Council of India and its viability.

A. Proliferation of Institutional Arbitration

Arbitration in India is quite flexible as it provides sufficient autonomy in relation to procedural matters[10] and furthermore this facet has been a basis for the abstruse loyalty towards ad-hoc arbitration. But due to various drawbacks, owing to delays, procedural fallacies and ineffective adjudication, a new system undoubtedly is making headway in India, the Institutional Arbitration.

Perusal of the International Chamber of Commerce (hereinafter 'ICC') statistics for 2018 reflect that of the 235 appointments of sole arbitrators made, only 63 materialized through the nomination or agreement between the parties.[11] The crucial factor assigned to it as explicated by the report was the appointments made by ICC, which resulted in efficient arbitration, and having an institution which is specifically endowed with such function ensures cost saving and efficiency in a multitude of ways.

The Ministry of Commerce and Industry, Government of India, issued an office memorandum noting that, the ad-hoc arbitration have often been lacking the spirit of an 'ideal dispute resolution system' due to various legal and practical problems resulting in "unreasonably high costs and inordinate delays." The reason imputed to it was due to the non-existence of an institutional mechanism governed by comprehensive rules of an arbitral institution.[12]

Thus in order to ensure that India establishes its reputation globally as hub of institutional arbitration, the amendment introduced Arbitral Institution mechanism in India, further striving to ensure that preference conceivably be made in favour of arbitral institutions than ad-hoc arbitration.

The Arbitration and Conciliation (Amendment) Act, 2019 has specifically laid provisions for establishing Arbitration Council of India. This body is endowed with various functions[13] for instance, taking expedient measures for promotion and encouraging mechanism for alternative dispute resolution, policy framing for uniform professional standards, gradation of arbitral institutions and various other functions envisaged to make India a prominent centre for International Arbitration.

B. Appointment of Arbitrator

The impetus given to establishment of arbitral institution has resulted in delegation of the crucial function of appointment of arbitration, which shall be performed by an arbitral institution to which such authority has been designated. Thus appointment application is to be filed before the arbitral institution, and is required to dispose of such application within 30 days from the service of notice.[14]

One of the distinguishing attribute of arbitration as a form of dispute resolution process is the party autonomy and volition to appoint arbitrator[15] and devise a procedure which suffice their requirement. The power to choose an arbitrator as per the parties' choice has been cited as the 4th most remarkable characteristic of arbitration.[16]

This practice is akin to other international arbitration jurisdictions such as Singapore[17] and Hong Kong,[18] where they have their own designated institution, and the power to appoint reposes within their dominion. The Institutions generally make appointments upon taking into consideration the facts and the specifications of the dispute, thus ensuring that appropriate appointment be effected.[19] This crucial function of appointment is a matter of concern associated with the reputation of the Institutions, and that the appointment being a sacrosanct function in International Arbitrations bespeaks its significance.

The Amendment empowers the Supreme Court and the High Courts (Apex Court in International Commercial Arbitration and High Court in other cases), to designate arbitral institution, which has been created by Arbitration Council of India for appointing arbitrators and where no such graded arbitral institution exists, the duty is imposed upon Chief Justice of the respective court to prepare panel of arbitrators. This encourages the streamlining of the arbitral process and unburdens the courts thus making efforts for eliminating the encumbrances which the arbitration faces. It is a change from a stance where appointment was considered a judicial function in nature,[20] moreso the courts have often been reluctant to part with its powers, though this was later redefined.

The procedure and the course of appointment has been a point of contestation and controversies, fundamentally the delegation of power to appoint and the efficacy of arbitral institutions, nonetheless it must be understood as a great stride in the process of development of the judicial mechanism, as well as its evolution as an appellate forum and delineating its juridical authority as a constitutional court.

C. Prospective or Retrospective: Conundrum Finally Put To Rest

There was a state of incertitude regarding the applicability of the amendment of 2015, whether or not it shall apply to the proceedings which had commenced before the Amendment Act 2015 came into effect.

To bring clarity (unsurprisingly it brought more confusion) and intending to settle the '*cause célèbre*', section 87 was inserted by 2019 Arbitration and Conciliation (Amendment) Act, 2019. Also, the Act provided for omission of section 26, thereby spelling it out precisely that the Amendment Act is applicable only to the arbitral proceedings which have commenced after October 23, 2015, and to such court proceedings ensuing such arbitral proceedings.

The prospective application of the Act was an issue upon which there was division of opinion among various High Courts. Whilst the Hon'ble Madras High Court[21] ruled that literal interpretation of section 26 subsequent to the Amendment Act, 2015, due to omission of the terms "*in relation to*," clearly refers to the arbitral proceedings and not the court proceedings (thus resulting in the non-application of the Amendment Act at the stage of post arbitral proceedings). This view was concurred by the Division Bench of the Hon'ble High Court of Calcutta.[22]

The Division Bench of High Court of Delhi, took a divergent view (though not completely contrary to Madras/Calcutta High Court's decision), affirming that the amended provisions shall not be applicable to court proceedings which commenced post-amendment, except where they were merely '*procedural*' in nature and did not tantamount to '*accrual of rights*' or affected the '*accrued rig*hts', thus in a situation, where an application for challenging award or any order is filed after amendment, the court shall decide as per the unamended section 34.[23]

Over and above, the Hon'ble Supreme Court in a catena of cases[24] made an effort to ensure the efficacy of the law governing arbitration, by giving its verdict regarding the issue of retrospectivity of the Amendment Act 2015. The Supreme Court clinched the issue holding that the amended law shall apply to both arbitral proceedings and related court proceedings and which had commenced on or after October 23, 2015. The court further opined that the amended section 34 of the Arbitration and Conciliation Act shall apply even in such matters where application for setting aside the award has been pending at the time of commencement of Amendment Act 2015, irrespective of the date of initiation of arbitral proceedings.

The critical repercussions of Highest Court's decision has been that formerly automatic stay for enforcement came into effect upon challenging of award, though now not only applications which have been decided, but also those matters wherein they are pending, a specific order is to be taken from the court to ensure that there is stay for enforcement, nevertheless this shall discourage the subversive and undermining practice of mechanically challenging arbitral award.

The Hon'ble Supreme Court of India had already conveyed it's disapprobation during the pendency of the 2019 Amendment Bill but the Parliament specifically brushed aside the Court's opinion. In a first-of-its-kind situation, the Apex Court while sternly fulminated the proposed amendment, directed that the a copy of the judgment be to placed before the Ministry of Law and Justice, Government of India and the Ld. Attorney General of India.[25]

The Government of India issued a press release on 7th March 2018, and introduced the propose Arbitration and Conciliation Amendment Bill, 2018. The section 87 which was to be now included in the Act, had sought the application of the Amendment Act, 2015 to be prospective in regards to arbitral proceedings. Interestingly, the amendment of section 87 actually rendered Supreme Court's opinion redundant by explicitly stating that the Amendment Act shall not applicable upon proceedings which had commenced prior to the Amendment of 2015.

First and foremost, the ramifications of this Amendment would have had caused a number of execution petitions filed in relation to those awards, which were or have commenced prior to the Amendment Act 2015 or their petitions under section 34 haven't been decided as yet, be render redundant, and non-maintainable owing to the provisions of section 36.

This issue, as contemplated, led to further litigation resulting in prompt intervention whereby the Supreme Court in the case of *Hindustan Construction Company v. Union of India*,[26] struck down section 87 as being unconstitutional and arbitrary. The decision has reinstated the prospective application, rendering the BCCI case back into operation, thus ensuring speedier realization of proceeds of arbitral award , faster and efficacious enforcement of awards, while reaffirming that merely challenging the award shall not effect as automatic stay, which was causing hardship to decreeholders for the enforcement of the decree. Thus, it has been settled that the 2015 Amendments shall apply to all court proceedings

initiated after October 23, 2015, regardless of the fact that arbitration may have commenced prior to the Amendment Act 2015.[27]

D. Imposing Confidentiality Obligations

It has constantly been a cause of concern for the parties[28] that confidential information, documents and trade secret secrets and price sensitive data which has been declared or submitted during the course of arbitration may end up being disclosed in public domain.[29]

Parties require a dispute resolution process which is effective, result-oriented and commercially viable, at the same time, prevents divulging or revealing of information to press, public, business rivals and the like.[30] Despite the fact such apprehensions and fear of disclosure has been considered to be prevalent in litigations, but in practice it has crept in arbitration too.

In India, earlier, parties could opt for maintaining confidentiality by making such stipulation in rules with which the parties may wish to be governed, though such power was provided in conciliatory proceedings only.[31]

It could be realized from the fact that the rules have been laid down by various international arbitration centers, for instance Hong Kong International Arbitration Centre, [32] Singapore International Arbitration Centre,[33]whereby the arbitrator appointed by such body is bound by such prerequisite regarding non-publication or disclosure, which in itself signifies the desirability and worthiness of confidentiality in arbitration.

The Arbitration and Conciliation (Amendment) Act, 2019 now ensures that the confidentiality of all the arbitral proceedings[34] is to be maintained by the arbitrator and institutions except the award; for the awards are subject to be challenged and therefore it would not be feasible to extend the provision which may frustrate the proper enforcement of the award.

E. Immunity

Another important feature introduced by the Arbitration and Conciliation (Amendment) Act, 2019 though not a highlighted aspect of this Act is the

safeguarding of arbitrators against any reckless legal action or proceedings for any act or omission performed during the arbitration in due course of law and in good faith or intended to be done under good faith.[35]This shall protect the arbitrators from frivolous court cases in context of the conducting of arbitration[36]; yet it still has some shortcomings which may make it more susceptible thus triggering proceedings and legal actions against arbitrators in the garb of imputations of malafides. The Act further provides extension of the immunity to the arbitral tribunal secretaries as well.

F. Section 29A: Mitigating the Stringent Timelines

This section was introduced by the Amendment Act 2015 with the 'pretension' that Arbitration may not succumb to the same malady with which litigation is impaired at present times. It imposed a statutory obligation that the Tribunal shall render an award within the stipulated period of 12 months which shall be calculated from the date of constitution of Arbitral Tribunal. The extension in regard to this period may be made by the parties or the Court, but such extension, in case where consented upon by the parties, shall not exceed 6 months.[37]

Priorly, this idea had been forthrightly excoriated in Justice Saraf Committee Report, while reviewing 176th Law Commission Report regarding the recommendation of imposing time limits, stating it to be contrary to practices and norms considered sacrosanct in International Arbitration landscape.[38]

Thus ensuring that the provisions may not result in obtrusion and cause negative impact upon International Commercial Arbitration in India, the Parliament taking note of the recommendations of the Srikrishna Committee made an amendment in this regard, whereby it provided for exclusion of International Commercial Arbitration from the mandatory time limits. Moreover, in domestic arbitration the amendment made provision for elongation of the timeline, by adopting new method of reckoning from the date of completion of pleadings.

By inserting the provision in section 29A(4), though the amendment has improved upon the prior lacunae by continuation of the mandate until the application has been disposed off, ensuring smooth and unabated functioning without causing ungraceful protraction while awaiting the court's decision for extension. This provision should be read in conjunction with section 32. Further it shall be deemed to have been extended where the court doesn't dispose the application within 60 days.[39]

A crucial change to ensure arbitration still isn't a court's affair, for computing the 12 months period, the timeline shall begin only from the date of completion of pleadings and not constitution of Arbitral Tribunal. The statement of defense and statement of claim must be concluded within 6 months from the notice of appointment, though strangely the time period consumed in filing of the joinder (both in counterclaims and non-counterclaims) shall not be included under section 23(4).

The Draftsmen have failed to clarify the ambiguity which has been introduced by the 2019 Amendment,which is left for the Supreme Court to be addressed and decide whether the completion of pleading to be effected within six months from notice be applicable on the International Commercial Arbitrations or not.[40]

The interpretation of section 29A along with section 23 in relation to 6 months period for pleading seems to be clearly contrary to the intent behind the Amendment, though while interpreting the aforementioned sections collectively seems to inadvertently apply the 6 months timeline to International Commercial Arbitration also.[41]

The concept of completion of pleading for computation practically is another bone of contention which may perhaps be faced in future for the reason that pleadings may be amended substantially at various stages, thus defeating the object of this provision and also the purpose of setting a timeline.

The Legislative Blunders : The premise upon which the Srikrishna Report was based were mere conjectures and surmises, indeed for implementation of government's rhetoric, having a myopic and improvident attitude towards the concrete and pressing issues, instead preferring to plump for the delusional concept of establishment of institutional arbitration without creating of an apt atmosphere.

The conception of arbitration institution is highly influenced from Singapore International Arbitration Act, though the legislature has failed to recognize the paradigm upon which the SIAA Rules rest that is, QUALITY. The prospects of designation of Supreme Court and High Court of the country as the appointing authority shall result in having far reaching ill-effects instead, further failing to restrict the number of institutional arbitration which may be designated.

Whatever may have been or would be the effects (favourable or adverse) of Arbitration and Conciliation (Amendment) Act, 2019 upon the arbitration landscape in India, undoubtedly it has been disputatious at least.

Irrespective of the fact that the Arbitration Council of India has been given sufficient powers and a governing body to function adequately, yet it cannot be denied that the constitution of Council is itself performed by the Government[42] which would surely tarnish the image of its unbiasness and stir up skepticism regarding its autonomous and independent approach. The Legal Affairs Department, under the Law Ministry, has issued a Draft with regards to Arbitration Council of India Rules calling for suggestion.[43] The authority to appointment in actual fact vests with the Central Government, along with intruded its bureaucracy, ensuring that it doesn't lose its predominance over the Institution.

The imminence of Council falling victim to government's listless attitude and lethargies cannot be completed brushed aside, especially where inclusion of proactive genuine experts is concerned.[44] This may perhaps be previsioned in the light of the Law Commission Report, 2009, in which it was found that the Union of India, the States and their instrumentalities were the biggest litigant in the country.[45]

The Eighth Schedule was added by the Arbitration and Conciliation (Amendment) Act, 2019, providing for the norms on the basis of which accreditation of arbitrators are to be set out. It further consists of some statutory requirements and the qualifications to be eligible to become an arbitrator.

The norms for accreditation of arbitrators have been an epicenter of criticism for being exhaustive and excludes the person who are recognized as qualified arbitrators by any other arbitral institution or body of professionals(such as the well-known Chartered Institute of Arbitration (CIArb)), thus presumably results in ruling out of qualified and experienced international arbitrators.

The legislature has sadly left the ambiguity again to be resolved at the behest of the Supreme Court, whereby the literal interpretation clearly signifies barring foreign legal professionals from practicing as arbitrators in India, a major setback in development as an International Hub. Non recognition of various important issues, reviewed and recommended by the "High Level Committee" under the chairmanship of Justice Srikrishna, for instance disregarding the concept of

emergency arbitration and emergency awards passed in India or outside shows the cold attitude towards expansion of New Horizons in Indian arbitration landscape.

Lastly, the Arbitration and Conciliation (Amendment) Act, 2019 has provided a blanket concept for the imposition of confidentiality, neither considering the necessities which may cause inconvenience, nor the requirements for establishing a better disputes resolution process.

Missing Out The Opportunity:The Logjam Left Clogged : There was inconsistency among the High Courts in India upon the issue of choice of a foreign seat when both the parties are Indian, some ruling that the choice of opting a foreign seat fundamentally being contrary to the "*Doctrine of Public Policy*"[46] while other High Courts have 'judiciously' asserted that parties have the freedom to opt for rules by which they wish to be regulated thus upholding party autonomy for choice of a preferred seat.[47]

Through the Amendment Act, the government had the opportunity to set the record straight by addressing the divergence,[48] rather than keeping it in abeyance, and yet another ambiguity lay at the behest of the Supreme Court to be clarified.[49] Parties to such contract which do not want to be in any precarious situation of award being set aside owing to an interpretation as being contrary to public policy should rather consider retention of seat in India only.[50]

Irrespective of the growth of Emergency Arbitration in international arena, which has been appreciated in 246th Report of Law Commission,[51] the 2019 Amendment fails to recognize Emergency Arbitration, thus an order/ award of the Emergency Arbitrator cannot be enforced, whether passed in India or outside.

Alternatively, the parties may directly make application for similar interim relief before the municipal courts in India.[52] The courts have given respite to the petitioners, yet have persisted upon filing of specific suit for enforcement of awards of emergency arbitrator.[53] Having said that, there does not exist any statutory provision which mandates the courts to grant any relief on the basis of emergency arbitration, let alone granting of the same relief or modified in that context.

The Way Forward : Proposition which is likely to be raised in future in order to understand the nature of the amendment, would be the disputes to which this

amendment is to apply, whether the amendment is '*substantive*,' '*procedural*,' or merely '*clarificatory*' in nature, and the interpretation by the Courts would be called for to provide some clarity. Want of explicitness has unarguably protracted effectuality of the amendment.[54]

Further, it would be important to consider the fact that Arbitration and Conciliation (Amendment) Act, 2019 would affect obtaining of anti-arbitration injunctions (seeking interim injunctions), as the courts have now been given an important role in this regard. The Amendment Act, 2019 now restricts the authority of the arbitral tribunal to make interim measures only during arbitral proceedings.[55]

The requirement of sharing of information with experts, third parties funders, would too require another view, either by legislation or by judiciary in order to ensure that the new horizons which have recently burgeoned may not be distanced owing to the technicalities of law.

While it has been some time now that Supreme Court demystified the issue regarding practicing law by foreign nationals in India[56], but the observation upon foreign lawyers not being debarred from conducting arbitration in disputes seems to be in diametric contradiction to norms laid down for eligibility of arbitrators. Determination and clarity regarding the eligibility may be an opportunity before the Supreme Court to make an attempt to mend ways for a pro-arbitration regime.

Conclusion : As it has been echoed throughout this article, the intent behind the Amendment was fundamentally the importunateness of making India a "Global Arbitration Hub." This in itself is for all intents a flawed premise to begin with. The felicitous roadmap should have comprised of improvement of business environment and making India an investor friendly economy, accompanied with a blueprint incorporating a feasible approach towards the aspiration of making India a Hub.

Further, all the existing Hubs have attained eminence by improving their domestic arbitration ecosystem, followed by establishing their reputation as a financially beneficial and viable option (which includes being a speedier dispute resolution system).

The reposing of excessive powers upon the Arbitration Council of India and entrusting it with the pre-eminent role of a regulatory body is rather a retrogressive step, which would in all probabilities eclipse the party autonomy.

Indisputably, the Amendment is an audacious step for projecting India as an aspiring international arbitration jurisdiction; nonetheless the arbitral regime in India is still fraught with glaring anomalies and incongruities. Without a shadow of doubt, the creases which may crumple the Indian arbitration jurisprudence in India will be ironed out by the judicial pronouncements.

All said and done, the favourable outcomes of the Amendment and eventually making progress towards establishing India as a viable and preferable arbitration destination shall hinge upon India's reputability as an economy having a dispute resolution mechanism which facilitates financial and economic development and the practical implementation of the Amendment complemented with the pro-arbitration approach of judiciary in its decisions.

Since arbitration is growing in complexities and is likely to become efficient by passage of time, India has been striving to keep pace with the rapid development in international arbitration by taking progressive steps, and these signs of growth in the Indian arbitration landscape are surely encouraging and propitious.

Endnotes :

[1] World Bank, Report on Doing Business (2018) *available at*
https://doj.gov.in/sites/default/files/Brief%20Note% 20on%20 Doing%20 Business%20Report-2018_2.pdf
(Accessed March 3, 2020)

[2] *White Industries Australia Ltd v. The Republic of India,*IIC 529 (2011); Final award, *available at*
https://www.italaw.com/sites/default/files/case-documents/ita0906.pdf
(Accessed March 6, 2020)

[3] *see also* Ashutosh Ray, Sapna Jhangiani and Joseph P. Matthews J.D., "*White Industries" and State Responsibility: Lesser-Known Facts about the Case as Discussed during the 2014 ICCA Young Arbitration Practitioners Conference*, Kluwer Arb. Blog, Jun. 30, 2014, *available at*
http://arbitrationblog.kluwerarbitration.com/2014/06/30/white-industries-and-state-responsibility-lesser-known-facts-about-the-case-discussed-at-2014-icca-young-arbitration-practitioners-conference/
(Accessed March 7, 2020)

[4] Bibek Debroy and Suparna Jain, S*trengthening Arbitration and its Enforcement in India – Resolve in India, available at*
https://niti.gov.in/writereaddata/files/document_publication/Arbitration.pdf
(accessed March 7, 2020)

[5] Report of the High Level Committee to Review the Institutionalization of Arbitration Mechanism in India (2017), *available at*
http://legalaffairs.gov.in/sites/default/files/Report-HLC.pdf [*hereinafter* ¯"Srikrishna Committee"]. (accessed March 7, 2020)

[6] Government of India, Press Information Bureau, Cabinet approves the Arbitration and Conciliation (Amendment) Bill,*2018*; *available at*
https://pib.gov.in/PressReleasePage.aspx?PRID=1523082
(accessed March 7, 2020)

[7] The Arbitration and Conciliation (Amendment) Act, (No..33 of 2019) (India), Statement of Objects and Reasons [*hereinafter* ¯"Amendment Act, 2019"].

[8] Arbitration &Conciliation (Amendment) Act, 2015, (No. 3 of 2015) (India) [*hereinafter* ¯"Amendment Act, 2015"]

[9] Srikrishna Committee*, supra* note 5, at 4-7

[10] S.Greenberg, C.Kee., et.al. , International Commercial Arbitration: An Asia-Pacific Perspective 305(1st Ed., 2011, Cambridge University Press, New York); The foundation upon which the edifice of party autonomy rests is the freedom of the parties' to choose the procedure.

[11]ICC Dispute Resolution Bulletin, ICC Practice And Procedure, 2018(2), 59 *available at*
https://cdn.iccwbo.org/content/uploads/sites/3/2018/07/2017-icc-dispute-resolution-statistics.pdf
(accessed March 3, 2020)

[12] Government of India, Ministry of Commerce & Industry (Trade Policy Division) No. 37/1/2004-TPD (Vol.II) & N0.37(1)/98-TPD, (Feb. 24, 2014) *available at*
http://www.cwc.gov.in/sites/default/files/useofarbitrationclause.pdf
(accessed March 3, 2020)

[13]Amendment Act, 2019, *supra* note 7,at § 43D

[14] Amendment Act, 2019, *supra* note 7,at § 11(13)

[15]J.B. Scott, The Proceedings of the Hague Peace Conference, Translation of the Official Texts, II The Conference of 1907, Meetings of the First Commission (Oxford University Press, New York, 1921)

[16]*2018 International Arbitration Survey: The Evolution of International Arbitration*, White & Case LLP and School of International Arbitration Centre for Commercial Law Studies, Queen Mary University of London; *Available at*

http://www.arbitration.qmul.ac.uk/media/arbitration/docs/2018-International-Arbitration-Survey-report.pdf

(accessed March 2, 2020)

[17]Singapore International Arbitration Act (Chapter 143a) at § 8(2) ["The President of Court of Arbitration of Singapore International Arbitration Centre has been given the appointing authority"] *available at*

https://www.siac.org.sg/images/stories/articles/rules/IAA/IAA%20Aug2016.pdf [*hereinafter* ¯"Singapore Act"]

(accessed March 10, 2020)

[18] Hong Kong Arbitration Ordinance (Cap 609);at § 24(2); available at

https://www.elegislation.gov.hk/hk/cap609!en?INDEX_CS=N [*hereinafter* ¯" HK Ordinance"], read with Hong Kong International Arbitration Centre Administered Arbitration Rules 2018, art. 7 & 8 available at

https://www.hkiac.org/sites/default/files/ck_filebrowser/PDF/arbitration/2018_hkiac_rules.pdf

(accessed March 10, 2020)

[19]Michael Dunmore, *Increased Efficiency and Lower Cost in Arbitration: Sole Member Tribunals* ,.4(1) Ind. J. Arb. L., 31 (2015)

[20]S.B.P. & Co. v. Patel Engineering Ltd., (2005) 8 S.C.C. 618 at ¶ 46.

[21] New Tirupur Area Development Corporation Limited v. Hindustan Construction Co. Ltd, A. No. 7674 of 2015 in O.P No. 931 of 2015 Jan. 26, 2016 (Madras High Court) (India).

[22] Sri Tufan Chatterjee v. Sri Rangan Dhar, 2016 SCC Online Cal 483, at ¶ 40.

[23]Ardee Infrastructure Pvt. Ltd. v. Ms. Anuradha Bhatia 2017 (2) ArbLR 163 (Delhi), at ¶ 29-32

[24]Board of Control for Cricket in India v. Kochi Cricket Pvt. Ltd., (2018) 6 SCC 287[*hereinafter*¯ "BCCI Case"], Ssangyong Engineering & Construction Co. Ltd. v. National Highways Authority of India, 2019 SCC Online SC 677.

[25]BCCI Case, *Id*., at ¶ 62

[26] (2019) SCCOnline SC 1520 (Dt. Nov. 27, 2019)

[27] Cyril Amarchand Mangaldas, *Dispute Resolution in India - Arbitration Primer*, *available at*

http://www.cyrilshroff.com/wp-content/uploads/2020/02/Dispute-Resolution-in-India-Arbitration-Primer-Handbook-Final-2020.pdf

(accessed Feb. 26, 2020)

[28]See generally, B. Srinivasan, *Comments on the (Indian) Arbitration & Conciliation (Amendment) Bill, 2018, available at*

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3289434

(accessed March 8, 2020)

[29] *See also* Marlon Meza-Salas, Confidentiality in International Commercial Arbitration: Truth or Fiction?, Kluwer Arb. Blog (September 23, 2018), *available at* http://arbitrationblog.kluwerarbitration.com/2018/09/23/confidentiality-in-international-commercial-arbitration-truth-or-fiction/

(accessed March 6, 2020)

[30] Nigel Blackaby and Constantine Partasides, *Redfern and Hunter on International Arbitration* (6th Ed Oxford University Press,. 2015). at ¶ 1.105, 2.161-2.176.

[31] The Arbitration and Conciliation Act, 1996, No.26 of 1996(India) [*hereinafter*¯" Arbitration Act, 1996"] at § 70

[32] HK Ordinance, *supra* note 18,at § 16,17,18

[33]Singapore Act, *supra* note 17,at § 22, 23 *read with* Arbitration Rules of the Singapore International Arbitration Centre (6th Ed., 2016), r. 39

[34]Amendment Act, 2019, *supra* note 7,at § 42A

[35]Amendment Act, 2019, *supra* note 7,at § 42B

[36] See generally, Singapore Act, *supra* note 17,at § 25 and HK Ordinance, *supra* note 18, s104

[37]Arbitration Act, 1996, *supra* note 31, Explanation to § 29A(1)

[38] Government of India, Ministry of Law and Justice, *Proposed Amendments to the Arbitration Conciliation Act, 1996,* Consultation Paper,127 ; *available at*

https://www.legallyindia.com/images/stories/docs/Arbitration-Act-LawMin-ConsultationPaper-on-Arb-Act-April2010-1.pdf

(accessed March 7, 2020)

[39]Amendment Act, 2015, *supra* note 7, at § 29A(9)

[40] Convention on the Recognition and Enforcement of Foreign Arbitral Awards, , 330 U.N.T.S. 38 (Jun. 10, 1958), [*hereinafter* "New York Convention"], Art. V,

available at

http://www.uncitral.org/pdf/1958 NYConvention.pdf

(accessed March 7, 2020)

[41] Gary B. Born, *International Commercial Arbitration* (2nd ed. Kluwer Law International, 2014) 2239 , ["Any impediment upon International Arbitration by imposition of mandatory, statutory time restrictions are challengeable under Art V.(1)d of New York Convention"]

[42]Amendment Act, 2019, *supra* note 7, at § 43C(1)

[43]The Arbitration Council of India (the Qualifications, Appointment and other terms and Conditions of the services of the CEO) Rules 2020,

available at

http://legalaffairs.gov.in/sites/default/files/ACI%20%28the%20Number%20of%20Officers%20and%20Employees%20of%20the%20Secretariat%20of%20the%20Council%20and%20the%20qualifications%2C%20appointment%20and%20other%20terms%20and%20conditions%20%29.pdf

(accessed March 8, 2020)

[44] Bhavana Sunder, Ashish Kabra & Vyapak Desai, *The Indian Arbitration and Conciliation (Amendment) Act 2019 – A Reflection*

available at

https://www.lexisnexis.com/uk/lexispsl/arbitration/document/412012/8WBY-0082-D6MY-P2MR-00000-00/The-Indian-Arbitration-and-Conciliation-%28Amendment%29-Act-2019%E2%80%94a-reflection/97028

(accessed March 3, 2020)

[45]Law Commission of India, *Report No. 230 Reforms In The Judiciary – Some Suggestions (2009)*, at ¶ 1.25

http://lawcommissionofindia.nic.in/reports/report230.pdf

(accessed Feb. 26, 2020); *See* also *Government Litigation – An Introduction*, Vidhi Centre for Legal Policy *available at*

https://vidhilegalpolicy.in/2018/02/16/2018-2-16-wbjjj7oyo5weitshift69rmzedy5t8/

(accessed Feb. 26, 2020)

[46] M/s Addhar Mercantile Private Limited v. Shree Jagdamba Agrico Exports Pvt. Ltd.; 2015 SCC Online Bom 7752

[47]GMR Energy Limited v. Doosan Power Systems India Private Limited & Ors.;2017 SCC Online Del 11625; Sasan Power v. North American Coal Corporation, 2015 SCC Online MP 7414

[48] See *generally* Naresh Thacker and Mihika Jalan, *India, The Asia-Pacific Arbitration Review 2020*, 76, *available at*

https://globalarbitratinreview.com/edition/1001336/the-asia-pacific-arbitration-review-2020

[49] The issue was dealt by Supreme Court in Atlas Export Industries v. Kotak & Co. (1999)7 SCC 61, but later stance upon the issue got muddled up after TDM Infrastructure Private Limited v. UE Development India Private Limited (2008) 14 SCC 271

[50]Shaneen Parikh, Shalaka Patil, Nimitt Dixit, Anand Mohan, *Arbitration In India – A Story Of Growth And Opportunity,* Cyril Amarchand Mangaldas, *available at*

http://www.cyrilshroff.com/wp-content/uploads/2019/06/Arbitration-in-India-%E2%80%93-A-Story-of-Growth-and-Opportunity.pdf

(accessed Feb. 26, 2020)

[51] Law Commission of India, *Amendments to the Arbitration And Conciliation Act*, 1996 [*hereinafter* – "246th Report"] 10, 37 (2014); *available at*

http://lawcommissionofindia.nic.in/reports/Report246.pdf

(accessed Feb. 27, 2020)

[52]*HSBC PI Holdings (Mauritius) Ltd.* v. *Avitel Post Studioz Ltd. &Ors*, 2014 SCC Online Bom 102, at ¶ 80,89

[53]*Raffles Design International India Pvt Ltd* v. *Educomp Professional Education Ltd* , 2016 SCC Online Del 5521, at ¶ 99. Seemingly, even the courts by default don 't recognize emergency arbitrations, unless a suit for enforcement of award from such emergency arbitration is filed.

[54]International Commercial Arbitration, Law and Recent Developments in India (May 2019), Nishith Desai, *available at* http://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research_Papers/International_Commercial_Arbitration.pdf (accessed Feb. 15, 2020)

[55]Arbitration Act, 1996, *supra* note 31, at § 17; The Act previously provided the power to pass interim order even after award was made, though now such power has been taken away after tribunal becomes functus officio.

Bio-Profile of the Authors :

[*]pursuing B.A LLB.(Hons), as a V[th] year student of Uttaranchal University, Dehradun, can be reached at *kushghai171197@gmail.com* , and contacted on +918938049400

[†]Assistant Professor, Uttaranchal University, Dehradun, may be reached at *drsandhyavermaa@gmail.com*

Corona Outbreak : Inflection Point for India's South Asian Moment

Gouri Sankar Nag[1]
Arpan Bhattacharya[2]

Abstract : *The recent outbreak of corona virus and the rise of an assertive China seem to draw a curtain of uncertainty on the existing power hierarchy in South Asia. Yet, by recharging increasing tensions amongst states and their vulnerabilities manifest in resorting to lockdown appear to evoke a replay of a Hobbesian predicament that simply bewilder us by the magnitude of overwhelming reactions. Nevertheless, one wonders to find the prospect of a radical reversal in the troubled waters as if a new South Asian world order is in the making. So, the contradiction of the dynamics lay embedded within the tension itself as it necessitated unprecedented lockdown while simultaneously giving way to sort of regional bonhomie and altruism as evidenced by the surging mood that the South Asian cooperation was fast becoming an important silver lining to hope for. It offers an inflection point, if not a decisive shift to navigate towards India's new South Asian moment. Its emotive and affective side is that we could even be drawn into an exercise of wishful thinking that perhaps these changes could make a sweeping breakthrough in the upcoming neighbourhood policy of India. But if possible at all, how would all these major changes unfurl and what would be India's package? This article is a brief probe tentative and indicative in nature along the trajectory of an argument that Modi's altruistic posture in the form of benevolent leadership and concern for the SAARC countries in the wake of this menacing crisis is going to herald his Neighbourhood 3.0. And it is this test for New Delhi to refashion her role away from hawkish realist straightjacket in catering to the demand of human security and global pandemic that she might be able to regain her claim to benign leadership that she had lost in her own strategic domain.*

Keywords: corona pandemic, lockdown, human security, neighbourhood 3.0, south asian moment.

The recent outbreak of corona virus and the rise of an assertive China seem to draw a curtain of uncertainty on the existing power hierarchy in South Asia. Yet, by recharging increasing tensions amongst states and their vulnerabilities manifest in resorting to countrywide lockdown appear to evoke a replay of a Hobbesian predicament that simply bewilder us by the magnitude of overwhelming reactions. Nevertheless, one wonders to find the prospect of a radical reversal in the troubled waters as if a new south Asian world order is in the making. So, the contradiction of the dynamics lay embedded within the tension itself as it necessitated unprecedented lockdown, thereby sealing borders and insulating oneself into an alienated cocoon while simultaneously giving way to sort of regional bonhomie, charity and altruism as evidenced by the surging mood that the south Asian cooperation was fast becoming a much important possibility to seize for and to act upon. It is definitely distinct from earlier instances when India had embarked upon actions in response to SOS calls like Operation Maitri in April 2015 after massive earthquake in Nepal. That situation and today's situations are simply incomparable by the degree of pervasive impact of the current pandemic with huge universal magnitude that we are witnessing today. Also, 1990s were a time when India was still locked within the jittery of ideational frame of 'Nonalignment Firsters' and as such, today's dimension of India's tremendous global outreach was simply unthinkable proposition at that time. So, 1990s was a period of conservative rethink lest any aberration could have jeopardized the line of our traction with overall adaptation in the evolving structure of post-cold war order.

Indian foreign policy establishment faced a criticism due to lack of India's clearly articulated approach towards immediate neighbourhood. It is under Modi and his personality factor that raised India's relations with her neighbours to a great extent. Although one feature of Indian foreign policy under Modi was increased importance put on bilateral connect with small neighbours rather than fully revitalising SAARC. Still from 2014 onwards Indian foreign policy in South Asia could not resemble clear cut approach like Gujral doctrine. India

badly needs a grand vision regarding the development of her own neighbourhood something which could span thirty years. The element of planning is still absent because it seems perhaps Prime Minister's own image or leadership calculations are somehow constraining such a task which is very important if India is to fulfil her mission which can't be accomplished as a short term goal. In fact, much of India's robust infrastructure projects depend upon confidence and cooperation to be extended by her neighbours like Nepal, Bhutan, and Myanmar. But the question arises can India be able to project her credibility? It depends upon her approach to take her neighbours into confidence and to give them recognition. It can't be accomplished by American way of coercive unilateralism. The present Kalapani issue with Nepal is a roadblock. Many such roadblocks exists. We can't overrule these problems also. So this was precisely the challenge for India before Covid-19. Of late much has been changed in India's diplomatic stance and engagement vis-à-vis our South Asian world order with our rapid awakening in regard to articulation of self-identity imbued with growing ambition, institutional overhaul with the creation of several new institutions and posts in recent time. To a considerable extent, this is the function of India's consistent push for sound economic growth, large market for trade and investment and endeavour to enhance own military muscle through defense modernization, joint military drill, prompt decision in respect of several crucial matters like OBOR and recently regarding RCEP. This also needs to be juxtaposed with several other events and their strategic implications like Trump administration's decision to withdraw from Afghanistan which might pose new change for India's re-entry in South Asia since in the changed scenario the balance of power might again turn to favour China to take advantage of the power vacuum to put pressure on India.

Seen from this perspective what we can visualize from Modi's altruistic posture in the form of benevolent leadership and generous concern for the SAARC countries in the wake this menacing crisis by creating a huge emergency fund is going to herald Modi's Neighbourhood 3.0. Whereas Modi's Neighbourhood 1.0 was characterized by his main thrust on winning support for India's call for investment, trade and infrastructure projects side by side with India's cultural connect, Modi's Neighbourhood 2.0 could be defined by India's rapport

with the neighbourhood mainly with a view to counter China Pakistan Economic Corridor and later to bring a calm despite India's sort of retaliatory posture exhibited by her Balakot air strike in 2019 coupled with her continuous trade diplomacy with the US in trying to secure favourable concessions after the Trump administration revoked Generalised System of Preference status previously accorded to India. Now, in the wake of the current corona virus pandemic, and the deeper worry of worldwide recession looming large India's strategic response are palpably undergoing a perceptible change requiring her to plunge into action for crisis management both at home and abroad with speedy and inclusive manner in close cooperation with the World Health Organization.

It is to be noted that what makes this crisis even more challenging is the vacuum of leadership in many nations, particularly the US, and even China, whose rise and role as the leader of the evolving international order is clearly under threat, as Kurt Campbell and Rush Doshi argue. So, India has to come out with alacrity and optimality in the face of such challenge because only if New Delhi can refashion her role in catering to the demand of human security and global pandemic she would be proportionately able to regain her footing that she might have lost due to tilt towards hard power, narrow slant shaping the discourse of some of our political and defence elites, and defence modernization at the expense of impending risks of losing the benefits of our earlier traction resulting in alienation from her immediate neighbours. So, this presents an imperative for India to re-engage with South Asian neighbours with new cooperative package and warm diplomatic gesture.

On the other hand, China's steady rise and inroad into South Asia's strategic space to fill the vacuum in the 1990s followed up by increasing hobnobbing with Pakistan, Myanmar and Sri Lanka, to speak a few, had raised India's concern particularly after India became aware of China's "Strings of Pearls" to encircle India. But even during the fag-end of 1990s it was largely a question of India's capacity to balance China's expanding influence. But we started seeing the change-over from the middle of the first decade of the twenty-first century that India was waking up discernibly from its previous limited and hesitant mode to a much pronounced pursuit of reassertion in the geo-economic and geo-political space of South Asia as well as Southeast Asia. Needless to

say that this shift in role was made possible by India's impressive economic performance, military prowess in the Kargil conflict and importantly by her desire to stand up to China which was not possible either by the smaller Southeast Asian nations who avoided being overtly confrontational towards Beijing or any tiny nations of South Asia for whom priorities were relatively easy to set, and they were likely to latch up with one or other of these two key powers. But it is time for India to recalibrate her posture as a "regional peacekeeper" and "security provider" so as to enthuse her immediate neighbours so that they can trust Indian intention. Already India's naval diplomacy and associated discourse centering on SAGAR vision of Prime Minister Modi and the new dimensions of her Look East policy slowly giving way to Indo-Pacific strategy is a kind of repositioning that sends out a signal that India is ready to accept the Chinese gauntlet not only in the Bay of Bengal but further eastward towards the Pacific. So, our relations with tiny neighbours like Bhutan, Bangladesh, Sri Lanka need to be seen in this perspective.

The emotive and affective side of this unfolding trajectory of Indian re-connect is that we could even be drawn into an exercise of wishful thinking that perhaps these changes could make a sweeping breakthrough in the upcoming neighbourhood policy of India. In reality, however, India's initial response was one of studied caution and hesitation in response to the outbreak. But quickly India shed off these hesitations and accepted the neighbours as prime partners of its foreign policy and of exploring possibilities of cooperation. No doubt, it would help mend her image that suffered badly due to the row and its fallout in the aftermath of new citizenship amendment act. But we feel that much of the benefits could still be neutralized unless India was able to effectively counteract Chinese moves to skilfully take advantage of the hole created by U.S. failures. Already what we are witnessing is a series of measures taken by china with highly emotive inputs. It is working to flaunt its own system, providing material assistance to other countries, and even trying to shape the discourse as if it is tendentious blame game of the western media out to malign it. So, it was dexterously the dualistic Chinese ploy to weave together nationalist sentiment with aid diplomacy while trying to cover up its own domestic front which is still in a messy conditions.

There are at least two other important issues related to it. First, the government's gesture unveils important features about the future foreign strategy of India in

which we have to think how we can bring alacrity in our response and work out defensible palladium against such future eventuality of massive disruption taking place. The present lockdown is reactive and temporary fire fighting mechanism and not an integrated and comprehensive approach. But Modi's idea of an emergency fund at the regional level provides at least a sense of responsibility for broader threat perception that we should work out collectively and review continuously. The essence of the idea was in Modi's affirmation that "Neighbours in South Asia can control the spread of the novel corona virus by coming together, not growing apart".

Secondly, there are loopholes and of course, our late arousal when the cases are mounting and shortage of mask, test kits etc. But PM's innovative 'Janta Curfew', quickly followed by rail and flight cancellation decision and different states locking down and local administration's vigilant role particularly to spread the awareness and to convince the rank and file to stay at home and to work from home is a kind of different transformative discourse that we have successfully been able to unleash.

India's approach towards its neighbours is now concentrated at two levels-firstly, the contemporary circumstances present new challenges for India. Now she needs focusing on capacity building in place of 'ingenuity' of its diplomacy alone. Secondly, it is evident that India's neighbourhood policy is now shaped by the perception that in the absence of well-coordinated health mechanism at regional level what is more important is special operation of psychological campaign to dispel fear among public both at home and using public diplomacy 2.0 to reach out to the neighbourhood audience in order to develop awareness, promote mental strength and create psychological deterrence which is very crucial in case of emerging threats to human security because in case of any extension of duration of lockdown which is particularly vulnerable for the poor and those belonging to the unorganized sector what seems most important is empathetic engagement with public and to send out psychological gesture that helps maintain social resolve and cohesion. For example, the way India hosted a virtual meeting with different leaders of SAARC countries clearly demonstrated India's conspicuous humanitarian concern and intense urge to reach out to her neighbours at this critical hour with the message that India is with them in their efforts to counter such menace with speedy and inclusive

manner. We hope the dark cloud of the pandemic would dissipate soon but the impact of the message with far deeper regional implications might linger by fortifying India's strategic proximity vis-à-vis her South Asian neighbours. So, while India has been correctly defining its neighbourhood in more expansive and strategic terms, including south-east, east and west Asian neighbors, the fact is that it is the immediate neighbourhood that is of greatest importance to India's own growth, development and security. The COVID 19 pandemic offered a scope for regional cooperation and Modi was right to grab it. Be it religious extremism or terrorism, be it trade and development or be it the fight against poverty, South Asia needs coordinated and holistic strategies both at regional and national levels given the multiple cross-border links that feed each other's worries.

Reference :

https://www.foreignaffairs.com/articles/china/2020-03-18/coronavirus-could-reshape-global-order
(Accessed on 4th April, 2020)

https://foreignpolicy.com/2020/03/24/south-asia-looming-disaster-coronavirus-india-pakistan-lockdown-public-health-crisis/
(Accessed on 5th April,2020)

https://www.orfonline.org/research/covid-19-diplomacy-social-distancing-virtual-closeness-in-saarc-63645/
(Accessed on 6th April,2020)

https://thediplomat.com/2020/04/can-india-organize-post-covid-19-global-action/
(Accessed on 7th April,2020)

https://www.foreignaff9airs.com/articles/india/2020-03-25/coronavirus-threatens-catastrophe-india
(Accessed on 29th March,2020)

Bio-Profile of the Authors:

[1]Professor and Head, Department Of Political Science, Sidho Kanho Birsha University, Purulia, West Bengal, Pin-723104, Mob-9433347868, Email-gouri.s.nag@gmail.com

[2]Assistant Professor and Head, Department Of Political Science, Ramananda College, Bishnupur, Bankura, West Bengal, Pin-722122, Mob -9635728931, Email-arp.bhatt143@gmail.com

Students Attitudes Towards E-Learning in Pollachi Taluk

A. Prakalathan[1]
B. Indira Priyadarshini[2]
N. Giri[3]

Abstract

The study explored student readiness for e-learning in Pollachi Taluk. In the last decade the impact of technology and multimedia on training, learning and education has increased at a rapid pace. There are different theoretical views, highlighting different schools of thoughts in the area. E-learning deals with the impact of technologies on learning and teaching. Within an organization the e-learning environment is utilized to train and educate the employees on their professional roles and organizational strategies and policies. There are numerous perspectives on the impact of an e-learning environment in corporate training. The responses imply that students have a slightly positive perception towards e-learning.

Keywords: Technology, Multimedia, Teaching, Environment

Introduction : E-learning processes include Web-based learning, computer-based learning, virtual classroom training and use of multimedia or digital content. The digital content is delivered via the Internet, audio or video tape, CD-ROM or satellite TV. It includes multimedia or digital content in the form of text, image, animation, video and audio. Abbreviations like CBT (Computer-Based Training), IBT (Internet-Based Training) or WBT (Web-Based Training) are generally used as synonyms to e-learning.

E-learning is naturally suited to distance learning and flexible learning, but can also be used along with face-to-face or traditional teaching, in which case the term Blended learning is commonly used. Sameer (2009) defines Blended Learning as a fruitful effort in integrating live classroom activities including face-to-face instructions along with online learning and instructions so as to reap the maximum benefits by utilizing the best elements of all through effective planning by an ideal facilitator.

Review of Literature :

Li Xiao and Subhasish Dasgupta (2006), carried out a study entitled 'User Satisfaction and Web Portal Use', to examines whether behavioral and demographical factors. A sample of 340 undergraduate and post graduate students are collected by adopted Purposive random sampling method. Tools like descriptive statistics have been used to analyse the data. The outcome of the study reveals, that the more people use the web; they are most satisfied with web portals.

Sridevi (2010) carried out a study entitled, 'Attitude of Secondary School Teachers towards E-Learning', to examine secondary school teachers' attitude towards e-learning. The required data for the study have been collected through issue of questionnaire. The results of the reveals that, only meager percentage of teachers have positive attitude towards e-learning and urban teachers have better favorable attitude when compared with rural teachers.

Josua Tarigan (2011), in his study entitled that 'Factors Influencing Users Satisfaction on E-Learning Systems', to evaluate user satisfaction and examine the association between user satisfaction and the qualities in the e-learning systems of Multinational Company. He find out that four dimensions of e-learning satisfaction have a positive influence with user satisfaction.

Ramayah et al., (2012), carried out a study entitled 'System Characteristics, Satisfaction and E-Learning Usage: A Structural Equation Model (SEM)', found that satisfaction, system quality and service quality were positively related to continuance intention explaining of the variance.

Bens Pardamean et al., (2014), carried out a study entitled 'A Systematic Approach to improving E-Learning Implementations in High Schools'. The

data have been collected through issue of questionnaire. They found that the student's computer skills had a strong correlation with their achievements and it is important to consider the influence of computer skills on achievement when implementing ICT into the learning process.

Nasrudin Md Rahim et al., (2014) conducted a study entitled, 'Assessing Students' Readiness Towards e-Learning', to gauge the readiness of Unisel's students in e-Learning environment. They find that most of the respondents are accessing the technologies that are required for e-Learning environment and respondents are knowledgeable regarding the basic Internet skills.

Raymond Selorm Mamattah (2017), carried out a study entitled 'Students' Perceptions of E-Learning', to discover students' opinions of e-learning, which is an alternative to traditional classroom teaching and learning. The required data for the study have been collected in primary through issue of questionnaires. Resultant of the study specifies that students prefer hybrid learning, educational institutions can also collaborate with institutions already in possession of the technology necessary to offer e-learning courses.

Statement of the Problem : The present study entitled 'College Students Attitudes Towards E-Learning' is undertaken to assess the extent of use of e-leaning resources in Pollachi Taluk and the difficulties faced by the students in learning. The outcome of the study is expected to help in better understanding the current status of e-learning resources in our Education and discovering the means to improve the same. This leads the following queries:

- What is the quantum of student's level of awareness of E-learning tools?
- What are the purposes of using e-learning methods?
- What type of problems that occur while using the internet for E-learning?

Objectives of the Study : The current study is initiated with the following goals

- To understand the students satisfaction towards E-Learning tools.
- To ascertain the purpose of using e-learning methods.
- To know the factors influence to use of E-learning tools.

Methodology : The current study is predominantly based on primary data which is obtained through issue of questionnaire to the student's awareness, preference and utilization of E-learning web portals. The questionnaire includes questions pertaining to socio-economic profile of sample students, their details of using E-learning tools, Satisfaction of E-learning methods. The necessary data for the study have been obtained through issue of 120 questionnaires to the students using E-learning methods in Pollachi Taluk. Convenience sampling technique has been adopted to collect the data from the sample consumers. The data have been analyzed by making use of statistical tools like Simple Percentage and Weighted Average Rank Method.

Significance of the Study : Development of an E-Learning class bulletin board that facilitates virtual interaction of students and lecturer in an academic environment. This research study is precise and makes special contributions to knowledge in developing an e-Learning class bulletin board; it additionally adds some components (Home, Chat and Attachment) to the original supply code downloaded from the Internet. Learning institutions are starting to witness a considerable impact of era in education. Positive attitudes can help college students to deal with the new state of affairs with lesser pressure and so allow them to take steps as it should be in tune with the want of the society.

Limitations of the Study : The current study is largely based on primary data and thus the data gathered may be biased in nature. Further, as the study has been carried out in scrutinizing the students' attitudes towards e-learning In Pollachi Taluk alone, enough care has to be worked out while enlarging the outcomes of the study to other areas.

Analysis and Interpretations
Socio – Economic Profile
Table -1

Particulars	No. of Respondents	Percentage
Age		
Below 20 years	87	72.50
21-25 years	21	17.50
26-30 years	12	10.00
Gender		
Male	52	43.30
Female	68	56.70
Area of Residence		
Rural	46	38.30
Urban	74	61.70
Educational Qualification		
Up to HSC	42	35.00
Under Graduate	50	41.70
Post Graduate	28	23.40
Year of Study		
1st year	26	21.70
2nd year	67	55.80
3rd year	27	22.50
Department		
Arts	22	18.30
Commerce	37	30.80
Mathematics	10	08.30
Science	8	06.70
Computer Science	22	18.30
Management	21	17.25

Reason for Choose Online Courses		
Convenience	12	10.00
Teaching methods	29	24.20
Teaching tools	06	05.00
Time Saving	04	03.30
Course fees	10	08.30
Timing	25	20.80
Availability	27	22.50
More Course	02	01.70
Distance learning method	05	04.20
Source of Influence		
Whatsapp	12	10.00
Facebook	32	26.70
You tube	16	13.30
Emails	12	10.00
Agents	12	10.00
Teacher	19	15.80
Websites friends	10	08.30
Newspaper /advertisement	07	05.80
Source to Access online courses		
Mobile	26	21.70
Laptop	35	29.20
Tablet	45	37.50
PC	14	11.70
Satisfied in Online Learning		
Yes	111	92.50
No	90	07.50

Source : Primary Data

Weighted Average Rank Analysis : In this method, interest to reading pages selected for ranking is limitation of online courses. The Classifications are A minimum level of computer knowledge, Require more time to learn, Lack of immediate feedback, Breakdown of technology delay in getting information, Online courses require good time management skills, Need to be an active learner and Responsible for our own learning.

Table - 4.24

Limitations of online Courses

Rank	Weight	A minimum level of computer knowledge		Require more time to learn		Lack of immediate feedback		technology delay in getting information		Online courses require good time mangement skills		Need to be an active learner		Responsible for our own learning	
		No of respondents	score	No of respondents	score	No of respondents	score	No of respondents	score	No of respondents	score	No of respondents	score	No of respondents	score
I	7	40	280	16	112	13	91	24	168	8	56	9	63	8	56
II	6	16	96	6	36	8	48	33	198	18	108	23	138	20	120
III	5	4	20	16	80	10	50	23	115	23	115	34	170	10	50
IV	4	6	24	15	60	52	208	9	36	14	56	10	40	10	40
V	3	12	36	32	96	14	42	13	39	19	57	22	66	10	30
VI	2	31	62	10	20	14	28	6	12	30	60	12	24	17	34
VII	1	11	11	25	25	9	9	12	12	8	8	10	10	45	45
Total		**529**		**429**		**476**		**580**		**460**		**511**		**375**	
Average		**75.57**		**61.29**		**68**		**82.86**		**65.71**		**73**		**53.57**	
RANK		**II**		**VI**		**IV**		**I**		**V**		**III**		**VII**	

From the above table out of 120 respondents rankings the 1st rank is given to Breakdown of technology delay in getting information, 2nd rank is given to minimum level of computer knowledge, 3rd rank is given to need to be an active learner, 4th rank is given to lack of immediate feedback and 5th rank is given to online courses require good time management skills and 6th rank is given to Require more time to learn and 7th rank is given to responsible for our own learning.

Summary of Findings :

- Greater part of the respondents belongs to up to 20 year's age group.
- Greater part of the sample respondents is female.
- Greater part of the sample respondents belong to urban area.
- Most of the respondents are under graduate holders.
- Most of respondents are doing a 2nd year.
- Greater parts of the respondents have commerce students.
- Greater part of the respondents have teaching methods reason for choosing the online courses.

- Most 32 (26.7%) respondents have known about e-learning through facebook influence.
- Larger parts of the 35 (29.2%) respondents have used E-learning tools through Laptop.
- A larger part of the respondents are satisfied with online learning.

Weighted Average Rank Analysis : Out of 120 respondents rankings the 1st rank is given to Breakdown of technology delay in getting information, 2nd rank is given to minimum level of computer knowledge, 3rd rank is given to need to be an active learner, 4th rank is given to lack of immediate feedback and 5th rank is given to online courses require good time management skills and 6th rank is given to Require more time to learn and 7th rank is given to responsible for our own learning.

Suggestions :

Based on the results of the current study, the researchers would like to suggest the following recommendations.

- The extensive and appropriate use of the internet and modern technologies can make up the lack of campus activities and the rarity of student-instructor interaction.
- Conduct similar studies for further investigation of instructors' attitudes to the e-learning.
- Further research is recommended to identify other variables such as (class level, learning method, and motivation type) that may affect the students' attitudes toward e-learning.
- The lack of knowledge in computer skills along with poor technological infra structure and resource can be a challenge for implementation of E – learning.

Conclusion : The result of the study shows that the strategy of implementing e-learning will be the best way for students to be aware of new technology and willing to study in various concepts. Technology will induce students to search and upgrade their knowledge. The management should maintain the technology in campus

in order to ensure e-learning could be useful to the students. These are because most of the students are still teenagers and they interested in interactive concepts of learning. Nowadays, the concepts of e-learning should be wider since the technology today provides many opportunities to the academician and students in gather their knowledge.

Reference :

Pardamean, Bens. 2014. '*A Systematic Approach to Improving E-Learning* and Suparyanto, *Implementations in High Schools*', The Turkish Online Teddy. Journal of Educational Technology, 13(3), 19-26

Tarigan, Josua. 2011. '*Factors Influencing Users Satisfaction on E-Learning Systems*', Journal Manajemen Dan Kewirausahaan, 13(2), 177-188

Xiao, Li. and Dasgupta, Subhasish.Subhasish. 2006. '*User Satisfaction and Web Portal Use*', *Americas Conference on Information Systems,* 5(6), 3015 – 3024

Rahim, Nasrudin. 2014. '*Assessing Students' Readiness towards e-Learning*', Md. Yusoff, American Institute of Physics, 3(2), 750-755

Siti Hawa Mohd. and Latif, Shahida Abd. Mamattah, Raymond 2016. '*Students' Perceptions of E-Learning', MERLOT* Selorm. *Journal of Online Learning and Teaching,* 11(1), 12-38.

K.V, Sridevi. 2010. '*Attitude of Secondary School Teachers towards E-Learning*', International Conference on e-resources in higher education: Issues, Developments, Opportunities and Challenges, 3(1), 105-110

Bio-Profile of the Authors:

[1]Assistant Professor, Dept.of Commerce with CA, NGM College, Pollachi.
Mobile - +91 99767 73723
[2]Assistant Professor, Dept. of Commerce (E-Commerce),
NGM College, Pollachi. Mobile - +91 74024 71598
[3]Assisthant Professor, Dept. of Commerce, NGM College, Pollachi.
Mobile - +91 94883 69877

Attitude of Teachers Towards Two-Year B.Ed. Programme in West Bengal with Reference to The NCTE Regulations, 2014

Subrata Bachhar[1]

Ajit Mondal[2]

Abstract : *The objective of the present study was to measure the attitude of the Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. Programme in West Bengal. The descriptive type survey method was used and its approach is quantitative for measuring their attitude towards the programme. For the selection of sample, stratified random sampling technique was adopted for the present study. In keeping the variables of the present study (gender, experience, locality, and types of institution) in mind, 150 Teacher-Educators and160 Pupil Teachers sample were selected from Government-aided and private-unaided B. Ed. Colleges from the Districts of Murshidabad and Kolkata in West Bengal. In order to measure the attitude of the Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. Programme, an attitude scale based on Likert's five point scale was developed and utilized by the investigators. It's a bi-polar scaling method to indicate positive or negative response to a statement. Mean, SD (descriptive stat), t – test (Inferential stat) and Bar-graph were employed and also 0.05 level and 0.01 level of significance were used to test the hypothesis. It has been found that the teacher-educators have shown a more positive attitude towards Two-Year B. Ed. Programme than the pupil-teachers. Though the male teacher-educators have shown a little more positive attitude than the female Teacher-educators, the female pupil-teachers have shown a more positive attitude than the male pupil-teachers.*

Keywords : Two-Year B.Ed., Attitude, Teacher-Educators, Pupil Teachers, West Bengal

Introduction : The National Council for Teacher Education (NCTE) acquaints us with its developmental discourse under the caption of 'At a Glance' in its own webpage (https://ncte.gov.in) that the NCTE, in its previous status since 1973, was an advisory body for the Central and State Governments on all matters pertaining to teacher education, with its Secretariat in the Department of Teacher Education of the National Council of Educational Research and Training (NCERT). With the passing of the National Council for Teacher Education Act, 1993 (No. 73 of 1993) the National Council for Teacher Education (NCTE) started its journey as a statutory body on 17th August, 1995 to develop planned and synchronized development of the quality teacher education system throughout the country and to control and sustain appropriately the norms and standards in the teacher education system. Before the advent of the Regulations 2014, there were three (2005, 2007, and 2009) consecutive regulations framed by the NCTE and each regulations vary from the previous one.

Though the reasons for formulating new regulations in 2014 have not been stated publicly by the NCTE, there were much talked about and debated in the domain of academia. There are two landmark policy-related developments in the landscape of school education in India that emerged in the past decade and which have generated considerable implications for teacher education. These are the National Curriculum Framework 2005 (NCF) and the Right of Children to Free and Compulsory Education Act (RTE), 2009. The NCF-2005 reiterated the necessity for connecting knowledge to life outside the school, understanding about construction of knowledge, facilitating learner in knowledge construction, creating a fear free atmosphere, addressing diversity and inclusion, equity and quality (NCERT, 2015: 4). Article 21A of the Constitution of India makes elementary education a justiciable right of all the children belonging to the age-group of 6 to 14 and the RTE Act, 2009 mandates that the State shall provide quality and equitable education of eight years to all the children. It also stipulates norms and standards for each school and teachers' professional commitments. The Act prescribes comprehensive and continuous evaluation (CCE) of child's understanding of learning and his or her ability of its application. Besides, learning through discovery, activities and

exploration in a child-centred manner has to be taken into consideration at the time of framing curriculum. Lastly, both the NCF-2005 and the RTE Act have made a paradigm shift in guidelines towards learner's construction of knowledge, learner's autonomy, curriculum content, pedagogy and formative assessment. In this backdrop, National Curriculum Framework for Teacher Education (NCFTE) - 2009 and Report of the Justice Verma Commission (JVC) in 2012 Report emerged to revamp teacher education in the country.

National Curriculum Framework for Teacher Education (NCFTE) - 2009 mainly attempted to diminish the mismatch of theory and practice in teacher education programmes by incorporating the socio-cultural contexts of education, giving more emphasis on the field experience of student-teachers in all courses through practicum, pedagogy and learning, classroom based research, and internship of longer duration (NCERT, 2015: 1). National Curriculum Framework for Teacher Education (NCFTE) - 2009 mainly attempted to diminish the mismatch of theory and practice in teacher education programmes by incorporating the socio-cultural contexts of education, giving more emphasis on the field experience of student-teachers in all courses through practicum, pedagogy and learning, classroom based research, and internship of longer duration (NCERT, 2015: 1). The NCFTE, 2009 also put greater importance on teacher's role in line with the changing school context and it accordingly reiterated that:

> "The NCF requires a teacher to be a facilitator of children's learning in a manner that helps children to construct knowledge and meaning. The teacher in this process is a co-constructor of knowledge. It also opens out possibilities for the teacher to participate in the construction of syllabi, textbooks and teaching-learning materials. Such roles demand that teachers be equipped with an adequate understanding of curriculum, subject-content and pedagogy, on the one hand, and the community and school structures and management, on the other" (NCTE, 2009: 3).

Justice Verma Commission was set up at the behest of the Supreme Court mainly "to review whether the Regulations on Recognition Norms and Procedure, currently in force as laid down by the NCTE are being properly enforced. If not, how to evolve a fair and transparent manner in which these norms and standards may be enforced" (MHRD, 2012: 3). After the submission

of the JVC Report, the Supreme Court constituted a committee to develop an action plan that outlines the processes and timelines required for the implementation of the recommendations. Following this action plan, NCTE constituted various subcommittees, including subcommittees for designing curriculum frameworks for various teacher education programmes, to work on the different recommendations (Sharma, 2019). This effort ultimately contributed to the final shape of the National Council for Teacher Education (Recognition Norma and Procedure) Regulations, 2014 and it was notified in the Gazette of India (No. 346) on the 28th November, 2014 (NCTE, 2014). As per the NCTE (Recognition Norma and Procedure) Regulations, 2014, the time-duration of the B. Ed. Programme has been enhanced from one year to two years from academic session 2015-16. According to the NCTE Regulations, 2014, the B.Ed. curriculum shall be designed to integrate the study of subject knowledge, human development, pedagogical knowledge and communication skills. The programme shall comprise three broad curricular areas: Theory Courses (Perspectives in Education and Curriculum & Pedagogic Studies), Engagement with the Field (NCTE, 2014:115). It also mandates that during the course physical presence in the institution of all the teachers and student teachers is necessary to ensure their availability for advice, guidance, dialogue and consultation as and when needed and the minimum attendance of the student-teachers shall have to be 80% for all course work and practicum, and 90% for school internship (NCTE, 2014: 114).

This B. Ed. Programme provides sustained engagement with the Self, the Child, the Community and the School, at different levels and through establishing close connections between different curricular areas. These curricular areas would serve as an important link between the above two broad curricular areas ((Perspectives in Education and Curriculum & Pedagogic Studies) through its three components: (a) Tasks and Assignments that run through all the courses, (b) School Internship and (c) Courses on Enhancing Professional Capacities. The above two broad curricular areas are amalgamated with the field engagements through different tasks and projects with the community, the school, and the child in school and out-of-school for substantiating perspectives and theoretical frameworks studied in a teacher education classroom with field-based experiences. The NCTE Regulations 2014 reiterated

that 'School internship' is a part of the broad curricular area of 'Engagement with the Field' to be organized for 4 weeks in the first year and 16 weeks in the final year of the course in order to develop a broad repertoire of perspectives, professional capacities, teacher sensibilities and skills. Internship in schools also includes, besides practice teaching, an initial phase of one week for observing a regular classroom with a regular teacher and incorporates peer observation, teacher observation and faculty observations of practice lessons. In a nutshell, the Two-Year B.Ed. Programme as suggested by the NCTE Regulations, 2014 now intends to move towards preparing professional and humane teachers. On the other hand, researchers are of the views that B.Ed. being a professional course needs acquisition of teaching skills and strategies more than extensive theoretical knowledge of the curriculum. The attitude of the teacher-educators and pupil teachers towards Two-Year B. Ed. Programme matters to a great extent for its successful implementation. Besides, the increase in the duration of B. Ed. Programme is also a very recent phenomenon. Following NCTE Regulations, 2014, the Higher Education Department of the Government of West Bengal duly formulated the Curriculum Structure for Two-Year Teacher Education Programmes (B.ED &M.ED) in West Bengal in 2015. In this backdrop, the present study has been undertaken to measure the attitude of teacher-educators and pupil teachers towards Two-Year B. Ed. Programme in West Bengal with reference to NCTE Regulations, 2014 and to make comparison of their attitude towards the programme with respect to their Gender, Experience, Locality and Types of Institution.

Significance of the Problem : After the enforcement of the NCTE Regulations, 2014, B. Ed. Programme became of two-year across India and it also came into force from the academic session 2015-2016 in West Bengal. The Regulations entail norms for infrastructure, fees, intake, eligibility of students and teachers, working days and hours, besides curriculum, programme implementation and assessment (Singh, 2019: 121). Apart from theory courses, it also puts emphasis on professional exposure and experiences through 20 weeks internship in schools. It is hoped that the two-year B. Ed. programme will enhance the cognitive base, professional commitment, pedagogical skills and competency and social status of teachers in matching with rapidly changing society.

However, attitude and opinion of stakeholders is very important for assessing relevance of new regulations as well as its appropriate implementation. Positive attitude also plays a very important role in effective out-comes of the programme. So it is significant to study the attitude of stakeholders of teacher education towards this two-year programme. There are good number of studies have been conducted on the perceptions of teacher-educators and pupil teachers towards teaching profession, use of TLM, research, teaching profession etc. But there is a dearth of studies on the attitude of teacher-educators and pupil teachers towards the newly introduced two-year B.Ed. programme. Keeping in view the above, the investigators decided to conduct a study on the attitude of the teacher-educators and pupil teachers towards two-year B.Ed. Programme in West Bengal.

Statement of the Problem : The statement of the problem in the study is captioned as "Attitude of Teachers towards Two-Year B. Ed. Programme in West Bengal with Reference to the NCTE Regulations, 2014".

Review of Related Literature :

Singh (2019) made a study to measure the attitude of teacher-educators and B.Ed. students towards existing two-year B.Ed. programme in Arunachal Pradesh. The study revealed that the attitude of the teacher-educators is more favourable than the B.Ed. students towards two-year B.Ed. programme. The attitude of female B.Ed. students is higher than male B.Ed. students. There found no significant difference in the attitude of Government and private B.Ed. students; tribal and non-tribal B.Ed. students towards two-year B.Ed. programme. Finally, it concluded that, the teacher-educators and B.Ed. students both have favourable attitude towards two-year B.Ed. programme.

Sushma. R. (2016) conducted a study to estimate the attitude towards two years B. Ed. Programme of teacher educators in relation with gender, type of institution and expedience in Karnataka. The study found that there was no significant difference in the attitude of Teacher Educators towards two years B. Ed programme in terms of gender and experience but there remained a

significant difference in the attitude of government, aided and unaided teacher educators towards two years B. Ed. programme.

Sudha (2017) conducted a study to evaluate the attitude of student teachers and teacher educators towards two- year B. Ed. course in Tamilnadu with reference to locality, level of experience, gender, and type of institution. The study explored that there was no significant difference among teacher trainees with reference to locality, level of education but there was significant difference with respect of gender and there was no significant difference among teacher educators with respect to level of experience and locality. It also revealed that there was no relationship between attitude of teacher-educators and student-teachers as the students-teachers didn't want to study for two years.

Mahajan & Rana (2017) made an investigation to study the problem faced by the pupil- teacher during two year B.Ed. programme in Shimla District of Himachal Pradesh. The major findings of the study revealed that the most of the pupil-teachers were not satisfied with (a) infrastructural facilities (b) teaching and non-teaching staff (c) library resources and (d) Study materials.

Adhikary (2017) conducted an investigation to study the perception of the Teacher trainees towards Two Year B.Ed. Programme in Assam. The findings discovered that the most of the teacher trainees hold negative perception towards the two-year B. Ed. programme due to lack of economic compatibility , the prolonged Internship programme without any remuneration and lack of job security after completion of two-year long course.

Garcha (2016) conducted a study to explore the dilemmas, fear, problems related to Two Year course of B. Ed. as well as M.Ed. The study revealed that (i) philosophical foundation of education was not given due importance in the Curriculum Framework: Two Year B.Ed. Programme prepared by NCTE. December, 2014, (ii) the curricula area under Engagement with the Field - the Self, the Child, Community and School suffers from ambiguity and appears to be a little too ambitious, (iii) Low enrolment due to low admission in the two-year B. Ed. and M. Ed. programmes after extension of time period of these programmes, (iv) lack of detailed guidelines at grass root level regarding quality practice teaching during internship, and (v) Lack of vision among Teacher Educators are the dilemmas, fear and problems faced by the teacher-educators.

A number of countable researchers have already examined the attitude of teacher-educators and pupil-teachers towards the two-year B. Ed. programme in India since the implementation of the NCTE Regulations, 2014. However, there still needs studies more on two- year B.Ed. programme in India for assessing the practicability of extension of the B.Ed. Programme from one to two-year. The favourable attitude of pupil-teachers and teacher-educators towards the new programme is necessitated for preparing better teachers with sound theoretical knowledge and pedagogical skills and also for successful implementation. So, the present investigation was taken up to measure the attitude of teacher-educators and pupil teachers, that is, how they perceive the programme in West Bengal.

Objectives of the Study: The present study has been conducted with the following objectives:

1) To study the attitude of the Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. programme in West Bengal.
2) To compare the level of attitude between Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. Programme in West Bengal.
3) To compare the attitude of Teacher-Educators towards Two-Year B.Ed. programme in relation to their Gender, Experience, Locality and Types of Institution
4) To compare the attitude of Pupil-teachers towards Two-Year B. Ed. programme in relation to their Gender, Locality and Types of Institution.

Hypothesis: Based on the research objectives of the present study, Researchers have framed the following null hypotheses:

- **Ho.1** There exist no significant mean difference in the attitude of Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. Programme in West Bengal.
- **Ho.2** There exist no significant mean differences in the attitude of Teacher-Educators towards Two-Year B. Ed. programme with respect to their Gender, Experience, Locality and Types of Institution.

- **Ho.3** There exist no significant mean differences in the attitude of Pupil-Teachers towards Two-Year B. Ed. programme with respect to their Gender, Locality and Types of Institution.

Operational Definitions of the Terms Used:

- **Attitude:** In the present study, the term 'Attitude' meant the opinion or views of the Teacher-Educators and the Pupil-Teachers of the B. Ed. Colleges in West Bengal about the various aspects of the Two-Year B. Ed. Programme with reference to NCTE Regulations, 2014.
- **Teacher-Educators and Pupil-Teachers:** Here the term 'Teacher-Educators' refers to those teachers who were working as Teachers at the B. Ed. Colleges (both Government-aided and Unaided-Private) in West Bengal and the term 'Pupil-Teachers' refers to students who were pursuing the Two-Year B.Ed. Programme as per the NCTE Regulations, 2014 in the B. Ed. Colleges in West Bengal.
- **Teachers:** The term 'Teachers' refers to the both Teacher-Educators and Pupil-Teachers in the study.
- **NCTE Regulations, 2014:** It denotes National Council for Teacher Education (Recognition Norms and Procedure) Regulations, 2014 published in the Gazette Notification dated 28.11.2014.
- **B. Ed. Programme:** It refers to the two-year bachelor of education programme leading to the B.Ed. Degree approved by the NCTE Regulations, 2014.

Methodology: To conduct the present study successfully the researchers have used the descriptive type survey method and its approach is quantitative for measuring the attitude of the Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. Programme in West Bengal.

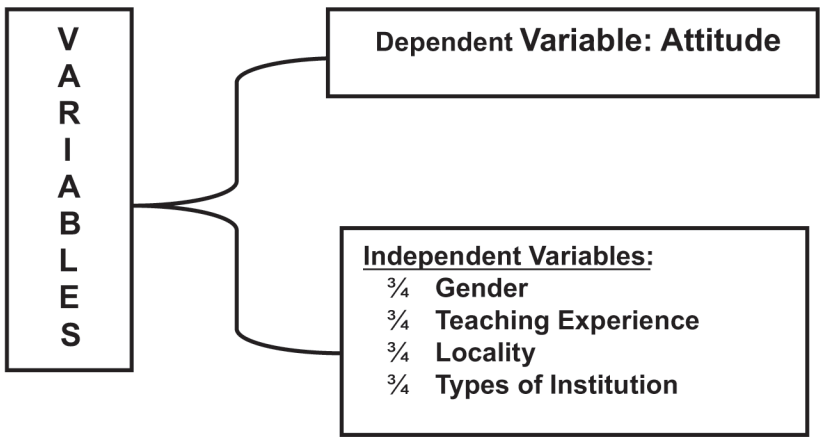
1) **The Sample and Sampling Procedure:** For the selection of sample, stratified random sampling technique was adopted for the present study. In keeping the variables of the present study (gender, experience, locality, and types of institution) in mind, 150 Teacher-Educators and160 Pupil Teachers sample were selected from five Government-aided and five private-unaided B. Ed. Colleges from the Districts of Murshidabad and Kolkata in West Bengal.

2) **Tools of the Study:** In order to measure the attitude of the Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. Programme, the researchers developed and used an attitude scale based on Likert's five point scale. It is a bi-polar scaling method to indicate positive or negative response to a statement. This scale consists of 45 items covering different dimension of Two-Year B. Ed Programme. This tool was standardized by applying test-retest method, and test-retest reliability score was 0.73. Content validity of this tool was established with the assistance of experts.

3) **Techniques of Data Analysis:** For measuring the attitude of the Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. Programme, Mean, SD (descriptive stat), t – test (Inferential stat) and Bar-graph were employed and also 0.05 level and 0.01 level of significance were used to test the hypothesis.

4) **Variables of the Study:**

In the present study two types of variables – four Independent Variables and one Dependent Variable were used. All the variables are diagrammatically presented below:



Analysis and Interpretation:

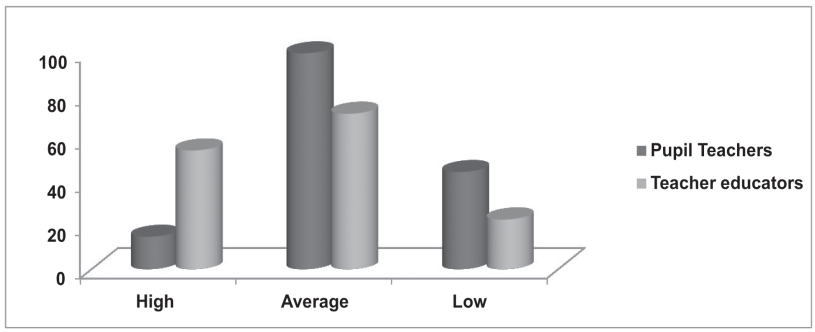
1. Study the Attitude of the Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. Programme in West Bengal.

Table-1: Attitude of the Teacher-Educators and Pupil Teachers According to Scale Norms

Status	Attitude Score Group	Response of the Pupil Teachers	Response of the Teacher-Educators
High	More than 100	15 (9.4 %)	55 (36.6 %)
Average	Between 72 - 100	100 (62.5%)	72 (48 %)
Low	Less than 72	45 (28.1%)	23 (15.3 %)
Total		160	150

Table- 1 shows that 36.6% teacher-educators and only 9.4% pupil teachers came under High Attitude Score Group. 48% teacher-educators and 62.5% pupil-teachers fell under Average Attitude Score Group. In case of Lower Attitude Score Group 15.3% teacher-educators came while 28.1% pupil-teachers fell under this category.

Graph-1: Attitude of the Teacher-Educators and Pupil Teachers towards 2-Year B.Ed.



2. Comparison of the Level of Attitude between the Teacher-Educators and Pupil Teachers towards 2-Year B. Ed. Programme in West Bengal

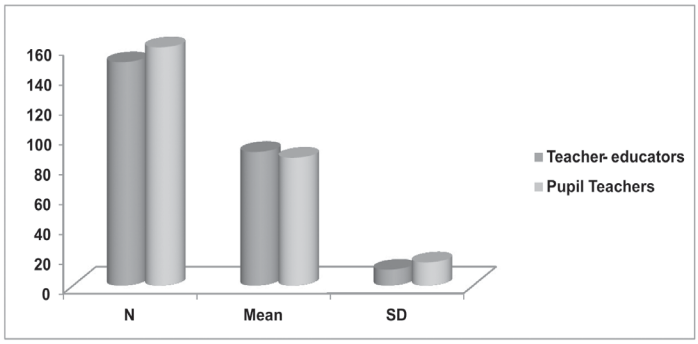
Ho.1 There exist no significant mean difference in the attitude of Teacher-Educators and Pupil Teachers towards Two-Year B. Ed. Programme.

Table - 2: Comparison of the attitude between Teacher-Educators and Pupil Teachers

Group	N	Mean	SD	Difference	df	t-value	Remarks
Teacher-educators	150	89.7	10.6	3.9	308	4.48	*Significant
Pupil Teachers	160	85.8	15.5				

Table -2 shows that the mean score of teacher-educators' attitude is 89.7 whereas the mean score of pupil-teachers attitude is 85.8 and also shows the difference of 3.9. The calculated value of 't' obtained is 4.48, which is greater than the table value of 't' at df 308. The difference between the two groups is significant at 0.05 level and 0.01 levels. Hence, the null hypothesis is rejected. This states that there exit significant difference in the attitude of Teacher - educators and Pupil Teachers towards Two-Year B. Ed. Programme. The comparison between teacher-educators and pupil teachers in respect of their attitude towards Two-Year B. Ed. Programme has been shown through the following Graph-2:

Graph-2: Comparison of the Attitude between Teacher-Educators and Pupil Teachers



3. Comparison of the Level Attitude of Teacher-Educators towards Two Year B. Ed. Programme in Relation to Their Gender, Experience, Locality and Types of Institution.

Ho.2 There exist no significant mean differences in the attitude of Teacher-Educators towards Two-Year B. Ed. Programme with respect to their Gender, Experience, Locality and Types of Institution.

Table-3: Comparison the Level of Attitude of Teacher-Educators in Relation Their Gender, Experience, Locality and Types of Institution

Category	Gr.	N	Mean	SD	Difference	df	t-value	Remarks
Gender	Male	80	80.6	14.4	2.8	148	1.26	**Not Sig.**
	Female	70	77.8	11.3				
Experience	Below 5 years (exp.)	88	80.5	14.0	1.3	148	0.59	**Not Sig.**
	Above 5 years (exp.)	62	79.2	12.0				
Locality	Rural	82	79.2	18.8	4.6	148	1.78	**Not Sig.**
	Urban	68	74.6	12.7				
Types of Institution	Govt.	42	82.8	13.5	11.7	148	6.03	***Sig. (At 0.05 & 0.01 lev.)**
	Private	108	94.5	12.7				

Table -3 shows that the mean score of male teacher-educators' attitude is 80.6 whereas the mean score of female teacher-educators' attitude is 77.8 and also indicates the difference of 2.8. The calculated value of 't' obtained is 1.26, which is lower than the table value of 't' at df 148. It is not significant at 0.05 level and 0.01 level. Hence, the null hypothesis is accepted. This means that there exit no significant difference in the attitude of male Teacher - educators and female Teacher - educators towards Two-Year B. Ed. Programme.

On the other hand, the mean score of below 5 years experience teacher-educators' attitude is 80.5 whereas the mean score of above 5 years experience teacher-educators' attitude is 79.2 and also show the difference of 1.3. The calculated value of 't' obtained is 0.59, which is lower than the table value of 't' at df 148. It is not significant at 0.05 level and 0.01 level. Hence, the null hypothesis is accepted. This states that there exit no significant difference in the attitude of below 5 years experience teacher-educators and above 5 years experience teacher-educators towards Two-Year B. Ed. Programme.

Table-3 also shows that the mean score of rural area teacher-educators' attitude is 79.2 whereas the mean score of urban area teacher-educators' attitude is 74.6 and also shows the difference of 4.6. The calculate value of 't' obtained is 1.78, which is lower than the table value of 't' at df 148. It is not significant at 0.05 level and 0.01 level. Hence, the null hypothesis is accepted. This indicates that there exit no significant difference in the attitude of rural Teacher-educators and urban Teacher-educators towards Two-Year B. Ed. Programme.

And finally researchers have found that the mean score of Government-aided teacher-educators' attitude is 82.8 whereas the mean score of unaided-private teacher-educators' attitude is 94.5 and also highlights the difference of 11.7. The calculated value of 't' obtained is 6.03, which is greater than the table value of 't' at df 148. It is significant at 0.05 level and 0.01 level. Hence, the null hypothesis is rejected. This states that there exit significant difference in the attitude of Government-aided Teacher - Educators and unaided-private Teacher - Educators towards Two -Year B. Ed. Programme.

4. Comparison of the Level of Attitude of Pupil-Teachers towards Two-Year B. Ed. Programme with Respect to Their Gender, Locality and Types of Institution

Ho.3 There exist no significant mean differences in the attitude of Pupil-Teachers towards Two -Year B. Ed. Programme with respect to their Gender, Locality and Types of Institution

Table-4: Comparison of the Level of Attitude of Pupil-Teachers with Respect to Their Gender, Locality and Types of Institution

Category	Gr.	N	Mean	SD	Difference	df	t-value	Remarks
Gender	Male	74	66.5	17.7	7.7	158	2.98	***Sig. (At 0.05 & 0.01 lev.)**
	Female	86	74.2	14.6				
Locality	Rural	98	70.3	16.5	0.9	158	0.33	**Not Sig.**
	Urban	62	71.2	17				
Types of Institution	Govt.	55	78.6	11.7	1.8	158	0.85	**Not Sig.**
	Private	105	80.4	14.4				

Table-4 shows that the mean score of male pupil-teachers' attitude is 66.5 whereas the mean score of female pupil-teachers' attitude is 74.2 and also shows the difference of 7.7. The calculated value of 't' obtained is 2.98, which is greater than the table value of 't' at df 158. It is significant at 0.05 level and 0.01 level. Hence, the null hypothesis is rejected. This states that there exit significant difference in the attitude of male pupil-teachers and female pupil-teachers towards Two-Year B. Ed Programme.

Table-4 also shows that the mean score of rural area pupil-teachers' attitude is 70.3 whereas the mean score of urban area pupil-teachers' attitude is 71.2 and also shows the difference of 0.9. The calculated value of 't' obtained is 0.33, which is lower than the table value of't' at df 158. It is not significant at 0.05 level and 0.01 level. Hence, the null hypothesis is accepted. This indicates that there exit no significant difference in the attitude of rural pupil-teachers and urban pupil-teachers towards Two-Year B. Ed. Programme.

And finally it has been found that the mean score of Government-aided pupil-teachers' attitude is 78.6 whereas the mean score of private pupil-teachers' attitude is 80.4 and also shows the difference of 1.8. The calculated value of 't' obtained is 0.85, which is lower than the table value of 't' at df 158. It is not significant at 0.05 level and 0.01 level. Hence, the null hypothesis is accepted. This states that there exit no significant difference in the attitude of Government-aided pupil-teachers and unaided-private pupil-teachers towards Two-Year B. Ed. Programme.

Findings, Recommendations and Conclusion :

The following are the findings of the study:

1) There exited significant difference in the attitude of Teacher - educators and Pupil Teachers towards Two-Year B. Ed. Programme. The teacher-educators have shown a more positive attitude towards Two-Year B. Ed. Programme than the pupil-teachers.
2) There exited no significant difference in the attitude of male Teacher - educators and female Teacher - educators towards Two-Year B. Ed. Programme. The male teacher-educators have shown a little more positive attitude towards than the female Teacher-educators.

3) Below 5 years experience teacher-educators have shown a little more positive attitude towards Two-Year B. Ed. Programme than the above 5 years experience teacher-educators.

4) The rural area teacher-educators have shown a more positive attitude towards Two-Year B. Ed. Programme than the urban area Teacher-educators.

5) The unaided-private Teacher-Educators have shown a more positive attitude towards Two-Year B. Ed. Programme than the Government-aided Teacher-educators.

6) There found significant difference in the attitude of male pupil-teachers and female pupil-teachers towards Two-Year B. Ed Programme. The female pupil-teachers have shown a more positive attitude towards Two-Year B. Ed. Programme than the male pupil-teachers.

7) The urban area pupil-teachers have shown a little more positive attitude towards Two-Year B. Ed. Programme than the rural area pupil-teachers.

8) The un-aided-private pupil-teachers have shown a more positive attitude towards Two-Year B. Ed. Programme than the Government-aided pupil-teachers.

Considering all the findings of the study, it can safely be recommended that the entire gamut of the Two-Year B. Ed. Programme under the NCTE Regulations, 2014 is effective and more promising for preparing professional and accountable teacher-educators as they have hold a more positive attitude towards Two-Year B. Ed. Programme than the pupil-teachers. Only the pupil-teachers need to be oriented with prescribed theoretical knowledge base through viable pedagogical strategies.

The Government-aided intuitions need to pay attention more and more to the student supportive environment and availability of library resources, deployment of quality teacher-educators and quality teaching-learning process in the B. Ed. Colleges situating in the urban areas for developing suitable attitude among the Government-aided pupil-teachers and teacher-educators in urban locality towards the two-year B. Ed. Programme. The attitude of the un-aided-private pupil-teachers and teacher-educators in rural intuitions in West Bengal denotes a message for making a shift in the attitude of the government-aided teacher-educators and pupil teachers in urban areas of West Bengal.

As a whole, the attitude investigated of teacher educators and pupil-students towards the two year B. Ed. Programme irrespective gender, locality, experience and types of institution implies the need to ensure that all the B. Ed. Institutions comply with the norms and standards stipulated in the NCTE Regulations, 2014 for preparing professional teachers in the future ahead. The extension of duration of B.Ed. programme with 16 weeks internship by NCTE will then have rationality.

References:

Adhikary, A. 2017. 'A Study on the Perception of the Teacher Trainees towards Two Year B.Ed. Programme Implemented in the Teacher Education Institutions in Assam', *International Journal of Scientific and Research Publications*, 7(9): 385-388.

Garcha, P. S. 2016. 'Reflections on Two years Teacher Education Programme. *International Journal of Education',* 6 (June 2016): 69-74.

Government of West Bengal. 2015. *Curriculum Structure for Two-Year Teacher Education Programmes (B.ED &M.ED) in West Bengal Following NCTE Regulations, 2014*. Kolkata: Higher Education Department, Government of West Bengal.

Mahajan, A. & Rana, S. 2017. 'Problems Faced by Pupil-Teachers during Two Year B.Ed. Programme', *Journal of Emerging Technologies and Innovative Research*, 4(11): 202-203.

NCERT. 2005. *National Curriculum Framework (NCF) - 2005.* New Delhi: National Council of Educational Research and Training (NCERT), MHRD, GOI.

NCERT. 2015. *Syllabus for Bachelor of Education (B. Ed.) Programme.* New Delhi: Department of Teacher Education, National Council of Educational Research and Training (NCERT), MHRD. GOI.

NCTE. 2014. *National Council for Teacher Education: Notification - The National Council for Teacher Education (Recognition Norms and Procedure) Regulations2014*, New Delhi: NCTE, MHRD, GOI.

NCTE (n. d.). *At a Glance - Introduction*. Retrieved from https://ncte.gov.in on 14.02.2020.

NCTE. 2009. *National Curriculum Framework for Teacher Education Towards Preparing Professional and Humane Teacher (NCFTE, 2009)*. New Delhi:National Council for Teacher Education (NCTE), MHRD, GOI.

NCTE. 2012. *Vision of Teacher Education in India Quality and Regulatory Perspective: Report of the High-Powered Commission on Teacher Education Constituted by the Hon'ble Supreme Court*

of India, Volume 1(Verma Committee). New Delhi: Department of School Education and Literacy, MHRD, Government of India.

Sharma, G. 2019. 'Policy and Regularity Changes in Teacher Education in India: Concerns, Debates and Contestations'. *Economic & Political Weekly*, 54 (9), 02 Mar, 2019. Retrieved from https://www.epw.in/engage/article/policy-and-regulatory-changes-teacher-education-in-india

Singh, V. 2019. 'Attitude of Teacher-Educators and B.Ed. Students towards Two-year B.Ed. Programme in Arunachal Pradesh', *Voices of Teachers and Teacher Educators*, VII (II): 119-125.

Sudha, S. 2017. 'Attitude of Student Teachers and Teacher Educators towards Two Years B. Ed. Course', *PARIPEX - Indian Journal of Research*, 6(1): 212-114.

Sushma. R. 2016. 'Attitude of Teacher Educators' Towards Two Years B.Ed. Programme', *Scholarly Research Journal for Humanity Science and English Language*, 3/14: 3365-3370.

Bio-Profile of the Authors:

[1]Assistant Professor & Head, Department of Education, Surendranath College for Women (University of Calcutta), Kolkata – 700009, West Bengal, India,

E-mail:subrata.bac1990@gmail.com

[2]Assistant Professor, Department of Education, West Bengal State University Barasat, District - 24 Parganas (North), Kolkata – 700126, West Bengal, India,

E-mail: mondalajit.edn@gmail.com

Examination Stress and Anxiety : A Study of Under Graduate Students in Purulia District

Subhasish Sen[1]

Sudip Barik[2]

Abstract : *The present study investigates the examination stress and anxiety of college students in Purulia district, West Bengal. In this era our life is full of stress for rapid advancement. Even students are not free from stress; they also feelexamination stress and anxiety before commencement of examination and during the examination. Stress is the force behind much learning. This study has been conducted over 150 college level students in purulia district, West Bengal, to know their examination stress and anxiety. The data has been collected by standardized questionnaire from the students. Statistical techniques such as Mean, Standard Deviation and t-test were applied for analysis of the data. It has been found that the male students have comparatively higher examination anxiety than the female students, the rural students have comparatively higher examination anxiety than the urban students and also the arts students have comparatively higher examination anxiety than the science students. In this paper few more results have been discussed.*

Key Words : examination stress, anxiety, college students.

Introduction : Examination anxiety is one of the vital problems among the moderate and low average students in this present time. Generally, before examination, everyone can experience more or less tension or nervousness. A little tension or nervousness can sometimes help the students to focus on their studies. But often there is a situation where a student has practiced sufficiently but whenever the exam day comes or the student enters the examination hall,

then that the students forgets everything or start feeling so nervous that the student cannot answer any of the test questions. When such a situation arises, one has to understand that the student has Test anxiety or symptoms are showing. Test anxiety is one kind of performance anxiety, which affects a person's body and mind. When a student is under stress, adrenaline hormone is released from our brain. As a result, sweat is emitted from various organs of the body, increased heartbeat, frequent exhalation etc. In this situation more and more people look at the betting aspects of their life and the amount of anxiety gradually increases and gradually his situation tends to go awry and exacerbates the tendency to produce bad results in exams. There are also many components for which test anxieties are produced, which are lack of proper preparation for the exam, bad time management, remaining awakened at night before the exam, bad results etc. There are some ways to manage this test and that is to never think anytime negative about the test, not to study at night and not to spend time with those who create stress etc.

Review of Related Literature :

Smita Sharma (2016) found that most of adolescents have moderate level of stress.

Prima Vitasari and et. al. (2010) found that there was significant correlation of high level anxiety and low academic performance among engineering students.

Archana Kumari and Jagrati Jain (2014) found that there was no significant difference found in the stress and anxiety level of UG and PG students.

Partha Das (2016) found that the rate of prevalence of anxiety among the maximum number of University level students that 64.44% found to be ranged from potentially and Moderate level of Anxiety.

Khabirul Alam and Dr. Ujjwal Kumar Halder (2018) found that there is significant negative correlation between test anxiety and adjustment of the secondary students and also there is significant negative correlation between test anxiety and adjustment of the male and female students and there is significant negative correlation between test anxiety and adjustment of the urban and rural students of secondary education with some exceptions.

Dr. Deepa Bisht and I.S. Sudha (2017) found that the examination stress level of higher secondary school students was found to be moderate and also there was a moderate negative significant relationship between the examination stress & the academic achievement of the higher secondary school students.

Statement of The Problem :

The problem of the present study was specified and state as, **"Examination stress and anxiety: A study of under graduate students in Purulia district."**

Objectives of The Study :

1. To know the significant difference in examination anxiety between male and female students.
2. To know the significant differences in examination anxiety between rural and urban students.
3. To know the significant difference in examination anxiety between science and arts students.
4. To know the significant difference in examination anxiety between general, OBC, SC and ST students.

Hypothesis of The Study :

$H_0$1: There is no significant difference between male and female students in relation to the examination anxiety.

$H_0$2: There is no significant difference between urban and rural students in relation to the examination anxiety.

$H_0$3: There is no significant difference between science and arts students in relation to the examination anxiety.

$H_0$4: There is no significant difference between urban male and rural male students in relation to the examination anxiety.

$H_0$5: There is no significant difference between urban female and rural female students in relation to the examination anxiety.

$H_0$6: There is no significant difference between general and OBC students in relation to the examination anxiety.

$H_0$7: There is no significant difference between general and SC students in relation to the examination anxiety.

$H_0$8: There is no significant difference between general and ST students in relation to the examination anxiety.

$H_0$9: There is no significant difference between OBC and SC students in relation to the examination anxiety.

$H_0$10: There is no significant difference between OBC and ST students in relation to the examination anxiety.

$H_0$11: There is no significant difference between SC and ST students in relation to the examination anxiety.

Methodology :

- **Method of the study:** In the present study the descriptive survey method was found to be the most appropriate one as the examination stress and anxiety of under graduate students.
- **Population of the study:** All the under graduate level students of Purulia district, West Bengal, are constituted as the target population for the present study. Further it was decided to take a representative sample of the population.
- **Sample of the study:** The sample is chosen from the population and is used to represent the population. Sample of 150 under graduate level students were randomly selected of Purulia district, West Bengal.

Table No. 1. Sample Profile

	Urban	Rural	Total
Male	21	63	84
Female	41	25	66
Total	62	88	150

Table No. 2. Sample Profile

	Male	Female	Total
Science	39	30	69
Arts	45	36	81
Total	84	66	150

Table No. 3. Sample Profile

	Urban	Rural	Total
Science	36	33	69
Arts	26	55	81
Total	62	88	150

• **Tools of the study:** In this study, researcher has used The Fried-Ben Test Anxiety Scale, was constructed and standardized by Friedman and Benadas – Jacob (1997). This inventory consists 23 items dispersed in three dimensions namely Social derogation, Cognitive obstruction and Tenseness, which measure examination stress and anxiety on a five point Likert scale. Five responses categorized as Strong Agree, Agree, Neutral, Disagree and Strong Disagree.

(i) Social Derogation – 1 to 8 items

(ii) Cognitive Obstruction – 9 to 17 items

(iii) Tenseness – 18 to 23

Statistical Techniques : The statistical Techniques are:

- Mean
- Standard Deviation (SD)
- t- test

Analysis and Interpretation of Data :

Testing of hypotheses:

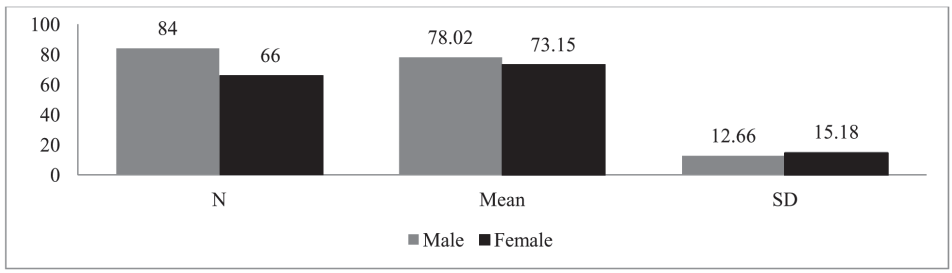
▪ **$H_0$1**: There is nosignificant difference between Male and Female students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
Male	84	78.02	12.66	4.87	148	2.13	1.96 (0.05)	Significant in 0.05 level and Not Significant in 0.01 level
Female	66	73.15	15.18				2.57 (0.01)	

Table No.4: Mean, Standard deviation and t-value of 84 Male and 66 Female students in relation to the examination anxiety.

Figure No. – 1

Graphical Representation of Number, Mean & SD of the Male and Female students in relation to the examination anxiety



The above table and figure show that the Mean Score of the Male and Female students in relation to the examination anxiety are 78.02 and 73.15 respectively and SD are 12.66 and 15.18 respectively. It indicates that the Mean Score on examination anxiety of the Male students are comparatively higher than that of the Female students. Therefore, it can be said that the Male students have comparatively high examination anxiety than the Female students of Colleges in the district of Purulia on the basis of their obtained Mean score.

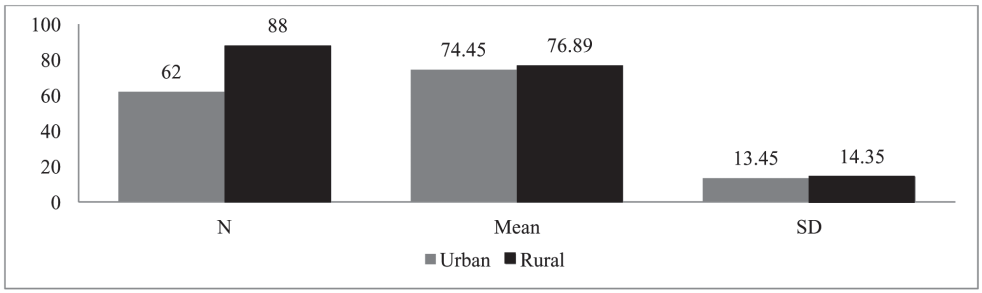
▪ **$H_0$2:** There is no significant difference between Urban and Rural students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
Urban	62	74.45	13.45	2.43	148	1.04	1.96 (0.05) 2.57 (0.01)	Not Significant in both level
Rural	88	76.89	14.35					

Table No.5: Mean, Standard deviation and t-value of 62 Urban and 88 Rural students in relation to the examination anxiety.

Figure No. – 2

Graphical Representation of Number, Mean & SD of the Urban and Rural students in relation to the examination anxiety



The above table and figure show that the Mean Score of the Urban and Rural students in relation to the examination anxiety are 74.45 and 76.89 respectively and SD are 13.45 and 14.35 respectively. It indicates that the Mean Score on examination anxiety of the Rural students are comparatively higher than that of the Urban students. Therefore, it can be said that the Rural students have comparatively high examination anxiety than the Urban students of Colleges in the district of Purulia on the basis of their obtained Mean score.

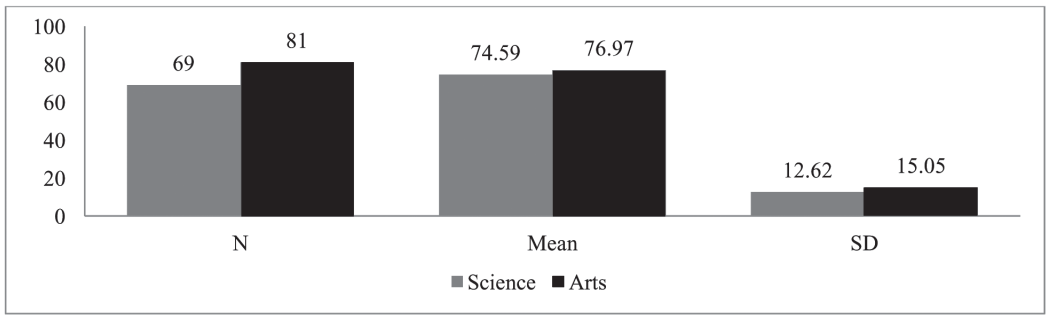
▪ **$H_0$3:** There is no significant difference between Science and Arts students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
Science	69	74.59	12.62	2.38	148	1.03	1.96 (0.05) 2.57 (0.01)	Not Significant in both level
Arts	81	76.97	15.05					

Table No.6: Mean, Standard deviation and t-value of 69 Science and 81 Arts students in relation to the examination anxiety.

Figure No. – 3

Graphical Representation of Number, Mean & SD of the Science and Arts students in relation to the examination anxiety



The above table and figure show that the Mean Score of the Science and Arts students in relation to the examination anxiety are 74.59 and 76.97 respectively and SD are 12.62 and 15.05 respectively. It indicates that the Mean Score on examination anxiety of the Arts students are comparatively higher than that of the Science students. Therefore, it can be said that the Arts students have comparatively high examination anxiety than the Science students of Colleges in the district of Purulia on the basis of their obtained Mean score.

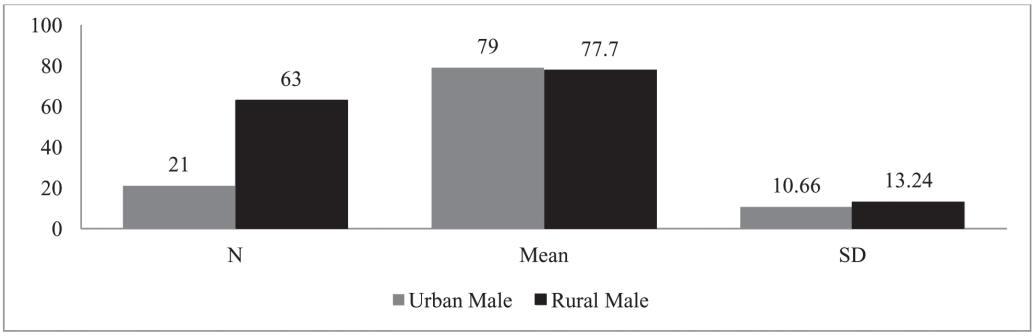
▪ **$H_0$4:** There is no significant difference between Urban male and Rural male students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
Urban Male	21	79	10.66	1.30	82	0.40	1.99 (0.05) 2.63 (0.01)	Not Significant in both level
Rural Male	63	77.70	13.24					

Table No.7: Mean, Standard deviation and t-value of 21 Urban male and 63 Rural male students in relation to the examination anxiety.

Figure No. – 4

Graphical Representation of Number, Mean & SD of the Urban male and Rural male students in relation to the examination anxiety



The above table and figure show that the Mean Score of the Urban male and Rural male students in relation to the examination anxiety are 79 and 77.70 respectively and SD are 10.66 and 13.24 respectively. It indicates that the Mean Score on examination anxiety of the Urban male students are comparatively higher than that of the Rural male students. Therefore, it can be said that the Urban male students have comparatively high examination anxiety than the Rural male students of Colleges in the district of Purulia on the basis of their obtained Mean score.

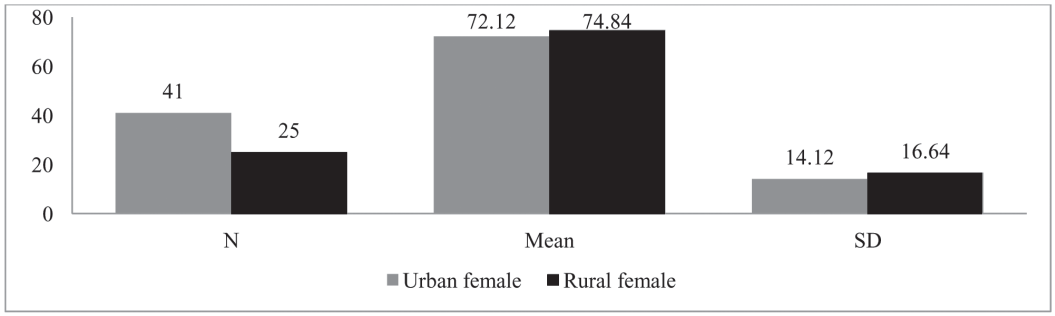
▪ **$H_0$5:** There is no significant difference between Urban female and Rural female students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
Urban Female	41	72.12	14.12	2.72	64	0.70	2.00 (0.05)	Not Significant in both level
Rural Female	25	74.84	16.64				2.66 (0.01)	

Table No.8: Mean, Standard deviation and t-value of 41 Urban female and 25 Rural female students in relation to the examination anxiety.

Figure No. – 5

Graphical Representation of Number, Mean & SD of the Urban female and Rural female students in relation to the examination anxiety



The above table and figure show that the Mean Score of the Urban female and Rural female students in relation to the examination anxiety are 72.12 and 74.84 respectively and SD are 14.12 and 16.64 respectively. It indicates that the Mean Score on examination anxiety of the Rural female students are comparatively higher than that of the Urban female students. Therefore, it can be said that the Rural female students have comparatively high examination anxiety than the Urban female students of Colleges in the district of Purulia on the basis of their obtained Mean score.

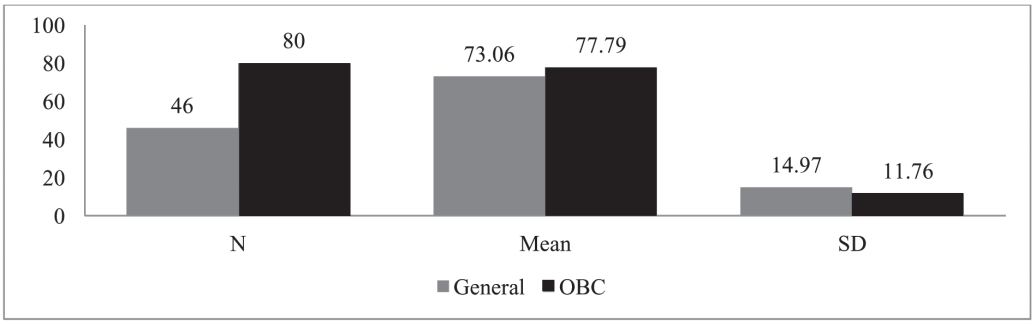
▪ **$H_0$6:** There is no significant difference between General and OBC students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
General	46	73.06	14.97	4.72	124	1.94	1.98 (0.05) 2.61 (0.01)	Not Significant in both level
OBC	80	77.79	11.76					

Table No.9: Mean, Standard deviation and t-value of 46 General and 80 OBC students in relation to the examination anxiety.

Figure No. – 6

Graphical Representation of Number, Mean & SD of the General and OBC students in relation to the examination anxiety



The above table and figure show that the Mean Score of the General and OBC students in relation to the examination anxiety are 73.06 and 77.79 respectively and SD are 14.97 and 11.76 respectively. It indicates that the Mean Score on examination anxiety of the OBC students are comparatively higher than that of the General students. Therefore, it can be said that the OBC students have comparatively high examination anxiety than the General students of Colleges in the district of Purulia on the basis of their obtained Mean score.

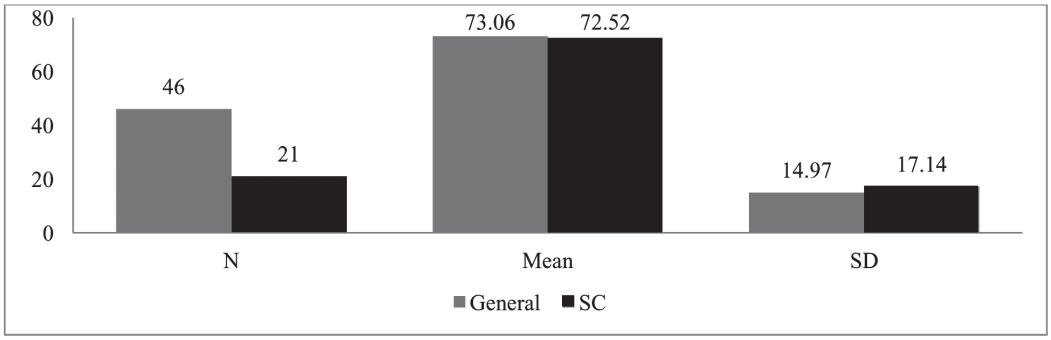
▪ **$H_0$7:** There is no significant difference between General and SC students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
General	46	73.06	14.97	0.54	65	0.13	2.00 (0.05)	Not Significant in both level
SC	21	72.52	17.14				2.66 (0.01)	

Table No.10: Mean, Standard deviation and t-value of 46 General and 21 SC students in relation to the examination anxiety.

Figure No. – 7

Graphical Representation of Number, Mean & SD of the General and SC students in relation to the examination anxiety



The above table and figure show that the Mean Score of the General and SC students in relation to the examination anxiety are 73.06 and 72.52 respectively and SD are 14.97 and 17.14 respectively. It indicates that the Mean Score on examination anxiety of the General students are comparatively higher than that of the SC students. Therefore, it can be said that the General students have comparatively high examination anxiety than the SC students of Colleges in the district of Purulia on the basis of their obtained Mean score.

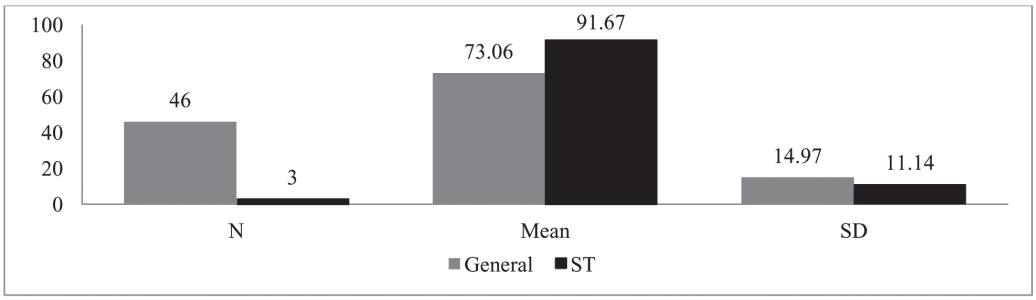
▪ **$H_0$8:** There is no significant difference between General and ST students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
General	46	73.06	14.97	18.60	47	2.07	2.01 (0.05) 2.69 (0.01)	Significant in 0.05 level and Not Significant in 0.01 level
ST	03	91.67	11.14					

Table No.11: Mean, Standard deviation and t-value of 46 General and 03 ST students in relation to the examination anxiety.

Figure No. – 8

Graphical Representation of Number, Mean & SD of the General and ST students in relation to the examination anxiety



The above table and figure show that the Mean Score of the General and ST students in relation to the examination anxiety are 73.06 and 91.67 respectively and SD are 14.97 and 11.14 respectively. It indicates that the Mean Score on examination anxiety of the ST students are comparatively higher than that of the General students. Therefore, it can be said that the ST students have comparatively high examination anxiety than the General students of Colleges in the district of Purulia on the basis of their obtained Mean score.

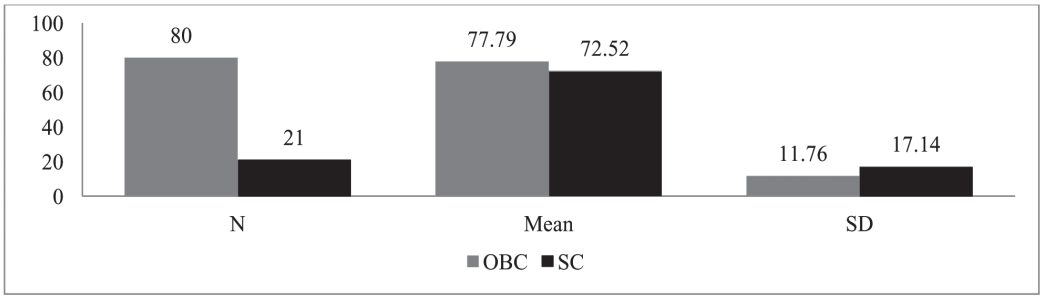
- **$H_0$9:** There is no significant difference between OBC and SC students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
OBC	80	77.79	11.76	5.26	99	1.63	1.99 (0.05) 2.63 (0.01)	Not Significant in both level
SC	21	72.52	17.14					

Table No.12: Mean, Standard deviation and t-value of 80 OBC and 21 SC students in relation to the examination anxiety.

Figure No. – 9

Graphical Representation of Number, Mean & SD of the OBC and SC students in relation to the examination anxiety



The above table and figure show that the Mean Score of the OBC and SC students in relation to the examination anxiety are 77.79 and 72.52 respectively and SD are 11.76 and 17.14 respectively. It indicates that the Mean Score on examination anxiety of the OBC students are comparatively higher than that of the SC students. Therefore, it can be said that the OBC students have comparatively high examination anxiety than the SC students of Colleges in the district of Purulia on the basis of their obtained Mean score.

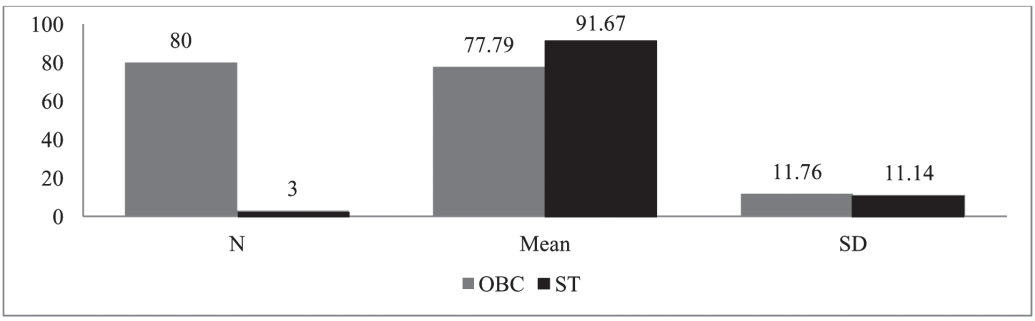
▪ **$H_0$10:** There is no significant difference between OBC and ST students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
OBC	80	77.79	11.76	13.88	81	1.99	1.99 (0.05)	Not Significant in both level
ST	03	91.67	11.14				2.63 (0.01)	

Table No.13: Mean, Standard deviation and t-value of 80 OBC and 03 ST students in relation to the examination anxiety.

Figure No. – 10

Graphical Representation of Number, Mean & SD of the OBC and ST students in relation to the examination anxiety



The above table and figure show that the Mean Score of the OBC and ST students in relation to the examination anxiety are 77.79 and 91.67 respectively and SD are 11.76 and 11.14 respectively. It indicates that the Mean Score on examination anxiety of the ST students are comparatively higher than that of the OBC students. Therefore, it can be said that the ST students have comparatively high examination anxiety than the OBC students of Colleges in the district of Purulia on the basis of their obtained Mean score.

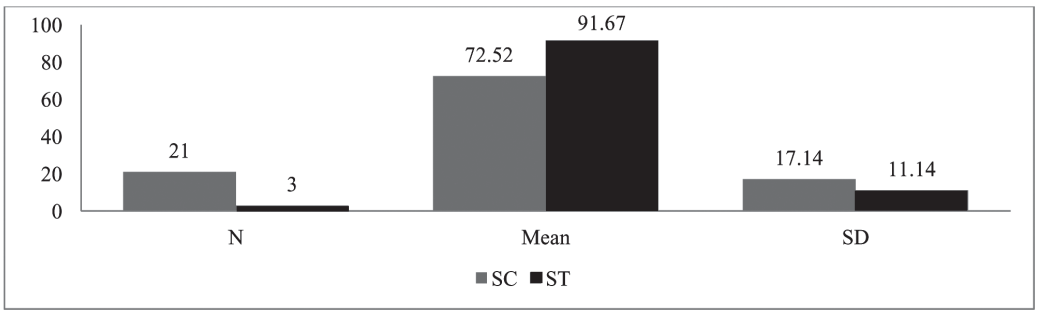
- **$H_0$11:** There is no significant difference between SC and ST students in relation to the examination anxiety.

Pair	N	Mean	SD	Mean Difference	Df	t- value (Calculated)	Table t-value	Remark
SC	21	72.52	17.14	19.14	22	1.80	2.07 (0.05) 2.81 (0.01)	Not Significant in both level
ST	03	91.67	11.14					

Table No.14: Mean, Standard deviation and t-value of 21 SC and 03 ST students in relation to the examination anxiety.

Figure No. – 11

Graphical Representation of Number, Mean & SD of the SC and ST students in relation to the examination anxiety



The above table and figure show that the Mean Score of the SC and ST students in relation to the examination anxiety are 72.52 and 91.67 respectively and SD are 17.14 and 11.14 respectively. It indicates that the Mean Score on examination anxiety of the ST students are comparatively higher than that of the SC students. Therefore, it can be said that the ST students have comparatively high examination anxiety than the SC students of Colleges in the district of Purulia on the basis of their obtained Mean score.

Findings :

1. It is found thatthe male students have comparatively higher examination anxiety than the female students of Colleges in the district of Purulia on the basis of their obtained Mean score.

2. It is found that the rural students have comparatively higher examination anxiety than the urban students of Colleges in the district of Purulia on the basis of their obtained Mean score.

3. It is found that the arts students have comparatively higher examination anxiety than the science students of Colleges in the district of Purulia on the basis of their obtained Mean score.

4. It is found that the urban male students have comparatively higher examination anxiety than the rural male students of Colleges in the district of Purulia on the basis of their obtained Mean score.

5. It is found that the rural female students have comparatively higher examination anxiety than the urban female students of Colleges in the district of Purulia on the basis of their obtained Mean score.

6. It is found that the OBC students have comparatively higher examination anxiety than the General students of Colleges in the district of Purulia on the basis of their obtained Mean score.

7. It is found that the General students have comparatively higher examination anxiety than the SC students of Colleges in the district of Purulia on the basis of their obtained Mean score.

8. It is found that the ST students have comparatively higher examination anxiety than the General students of Colleges in the district of Purulia on the basis of their obtained Mean score.

9. It is found that the OBC students have comparatively higher examination anxiety than the SC students of Colleges in the district of Purulia on the basis of their obtained Mean score.

10. It is found that the ST students have comparatively higher examination anxiety than the OBC students of Colleges in the district of Purulia on the basis of their obtained Mean score.

11. It is found that the ST students have comparatively higher examination anxiety than the SC students of Colleges in the district of Purulia on the basis of their obtained Mean score.

Discussion & Conclusion : Applying The Friedman Test Anxiety Scale to college students has made it possible for all those students to be measured on three sides of examination fear or anxiety that are Social derogation, Cognitive obstruction and Tenseness. From the all above findings we can say that Examination stress and anxiety among the under graduate level students in the district of Purulia is not very high & is not so low, its position is moderate. We see that college level students feel stress before the examination and during the examination, it leads to anxiety. Some factors are responsible for examination stress and anxiety, which are high aspirations, poor study habits, family problem, lack of parental help, fear of failure, test anxiety, change in medium of instruction, low socio-economic condition, academic load, competition for

grade etc. Students should take various steps to reduce this examination stress and anxiety such as the student's family environment needs healthy normalcy, students need to get into the habit of reading regularly, parents always need to support and help the students, one should not be afraid of failure because success comes through failure, there will be healthy competition among the students, there should not be too much academic load on the students, the students have to teach based on his own mother tongue, meditation, deep breathing exercises.

Limitations of The Study :

1. Due to short time and lack of money the study suffers from the limitation of small sample size and lack of in-depth analysis and discussion.

2. The present investigation has focused only on under graduate level students but not the other level students like school level students, post graduate level students and professional students.

Implication of The Study : With the help of the present study, the examination anxiety and stress of the students studying in the college can be known and also measures student's fears before and during the exams. The study helps to determine the prevalence of testosterone in male and female students, urban and rural students, science and arts students. Study the causes of examination stress and anxiety in students and take measures to reduce their examination stress and anxiety. The present study indicates that comparatively high examination anxiety between male and female students, urban and rural students, science and arts students, General, OBC, SC and ST students. There appears to be need for counselling students to help them overcome the examination stress and anxiety. Psychologists, educationist and counsellors need to their expertise in developing behavioural modification techniques and intervention programmes to reduce examination stress and anxiety.

Suggestions For Further Research : The researcher recommended the following suggestions for further research:

1. The present study is limited to only degree colleges of Purulia district, West Bengal. In order to have some broader perspective study may be extended to more colleges of other districts or to other states.

2. The present study is limited to a sample of 150 students of degree colleges in Purulia district. Repetition of this study with a larger sample of students of degree colleges.

3. A similar study can be conducted at various areas as well as from different levels.

References :

1. Das, P. 2016. 'The study on Anxiety of the student's university level in West Bengal', *International Journal of Science and Research*, ISSN (online): 2319-7064, Vol. 7, Issue 5, pp. 938–943.

2. Sharma, S. 2016. 'The level of stress among the college going adolescents living in Guwahati city of Assam', *The International Journal of Indian Psychology*, ISSN: 2348-5396, Vol. 3, Issue 4, No. 63.

3. Vitasari, P. & et. al. 2010. 'The relationship between study anxiety and academic performance among engineering student', *International Conference on Mathematics Education Research*, Vol. 8, pp. 490-497.

4. Kumari, A. & Jain, J. 2014. 'Examination stress and anxiety: A study of college students', *Global Journal of Multidisciplinary Studies*, Vol. 4, Issue 01, pp. 31-40.

5. Alam, K. & Halder, U. K. 2018. 'Test Anxiety and Adjustment among Secondary Students', *International Journal of Research and Analytical Reviews*, e-ISSN: 2348-1269, Vol. 5, Issue 3, pp. 675-683.

6. Bisht, D. & Sudha, I, S. 2017. 'A study of relationship between Examination Stress and Academic Achievement among Higher Secondary School students in Kancheepuram district', *Aarhat Multidisciplinary International Education Research Journal*, ISSN: 2278-5655, Vol. VI, Issue 1, pp. 250-264.

7. Thakur, D. & Oomen, E. R. 2015. 'Effect of Examination Stress on Physiological and Psychological parameters among Undergraduate Medical Students', *International Research and Publications in Medical Sciences*, e-ISSN: 2395-3950, p-ISSN: 2395-440X, Vol. 1, No. 3, pp. 64-68.

8. Manchanda, S. & et. al. 2018. 'A Study on Measuring Examination Anxiety in School Children', *EC Psychology and Psychiatry*, pp. 338-343.

9. Friedman, I. A. & Bendas-Jacob, O. 1997. Measuring perceived test anxiety in adolescents: A self-report scale. *Educational and Psychological Measurement*, 57, 1035-1045.

10. Prabu, P. S. 2015. 'A Study on Academic Stress among Higher Secondary Students', *International Journal of Humanities and Social Science Invention,*o-ISSN: 2319 – 7722, p-ISSN: 2319 – 7714, Vol. 4, Issue 10, pp. 63 – 68.

11. Nag, S. & Dutta, G. 2013. Guidance and Counseling in Adjustment. Kolkata: Rita Book Agency.

12. https://thepsychologist.bps.org.uk/volume-21/edition-12/examination-stress-and-test-anxiety (accessed/retrieved/updated on 29th March 2020)

https://en.wikipedia.org/wiki/Test_anxiety (accessed/retrieved/updated on 29th March 2020)

13. Shodhganga.inflibnet.ac.in (accessed/retrieved/updated on 30th March 2020)

Bio-Profile of the Authors:

[1]Independent Scholar, Purulia, W.B. (India)

[2]B.Ed student, Department of Education, Vinaya Bhavana, Visva –Bharati University, Santiniketan, W.B. (India)

Crossing of Vāgbhaṭa's *Aṣṭāṅgahṛdaya Saṃhitā* along with Tantra into Tibet from India – A Buddhist Perspect

Joydip Rudra

Abstract: *Traditional Indian healing system grew simultaneously on the Ayurveda and the Tantra. Both the Ayurveda and the Tantra are inter-linked. Although those were written as Sanskrit works but appeared as medical compendia. Apart from individual works some of the branches of the Ayurveda were also styled as tantras, e.g. agada-tantra, vajikarana-tantra, rasayana-tantra etc. It appears that Indian Ayurveda spread to Tibet around the 5th century A.D. when Buddhism began to spread there. In the Brihat-Trayi , neither Caraka Samhita nor Susruta Samhita, only Vagbhata's Astangahridaya Samhita had crossed the India and entered into the Tibetan soil. Chapter-wise a synopsis of the Eight parts of the Ayurveda in different Samhitas is given.*

The early Sanskrit treatises on medicine were called Tantra and not Samhitas. Around the 8th century Indian Tantra had been transplanted into Tibet by Vairocana, who carried 'Four Tantras' (Tib. rGyud-zhi), the heart essence text of Tibetan healing system. Thereafter both the Indian Ayurveda and Tantra mingled with the Tibet's local healing system, Bhum-shi. Before that Buddhism was formally introduced during the reign of Srongtsan Gampo in the first half of the 7th century.

During the 5th century A.D. Buddhism began to spread in Tibet and before that Tibet had no written language. The first Indian Buddhists to carry Ayurveda to Tibet were a man named Vijaya and a woman named Belha.

Astangahridaya probably reached Tibet through Nepal in the 11th century when Buddhism gradually was waning from India as well as Central Asia and Tantrism replacing Buddhism in

the soil of its origin. Two reasons have been primarily identified for crossing the Astangahridaya from India and entered into Tibet — one of them is Vagbhata was himself a Buddhist and another one is traces of Buddhistic tendency were found in Vagbhata's Astangahridaya. Gautama Buddha was regarded there as extraordinary physician (i.e. apurva vaidya) as he propounded the theory of four "noble truths". Any form of surgery or removal of body parts was restricted in the then (7th – 8th century A.D) Buddhistic society in India.

Several translatory works on Ayurveda and 'Four Tantras' were made by the different renowned Tibetan scholars during 8th to 16th century A.D. with a view to preserve the classical healing systems in their treasure. A comparative study of the Astangahridaya and the Tibetan rGyud-zhi is necessary in the present context to promote deeper understanding of the Indian influence on the Tibetan healing culture.

Key words: Ayurveda, Tantra, Caraka Samhita, Susruta Samhita, *Astangahridaya*, *rGyud-zhi*, Bhum-shi, *Apurva vaidya*, Tanjur.

Introduction : This paper aims to trace the history of how *Aṣṭāṅgahṛdaya Saṃhitā* along with Tantra had entered into Tibet from India. Presumably the medical knowledge-born out of the need of self-protection from disease, injury, ageing-is as old as man's appearance on Indian soil. The early Indian Buddhist community had to receive compulsary instruction prooviding a basic knowledge of medicine in their monastic education because Gautama Buddha personally taught various healing methods to his disciples. The *Aṣṭāṅgahṛdaya Saṃhitā*, known in Tibetan language as *Yan lag brgyad pa* is a systematised text on human illness. It contains six sections, known in Sanskrit as *Sthāna*, which includes "Eight Branches", in Sanskrit known as *Aṣṭāṅga* of *Āyurveda*. As the name suggests, it is not a Sutra text but a compendium, that is, *Saṃhitā*

***Āyurveda* and Tantra :**

The earliest medical works in India are the *Saṃhitās* of *Agnives'a*, Caraka, *Sus'ruta*, *Bhela*, *Kaśyapa*; and *Kauśika Sūtra*, *Atharva Veda*, *Gopatha Brāhmaṇa* etc., but those were not written as medical compendia, but as Sanskrit literary works. There was never a time when life did exist without *Āyurveda*. After

these appeared *Nāgārjuna's Yogaśataka, Yogasāra*; *Buddhaghosha's Viśuddhimāgga, Vrinda's Siddhayoga, Mādhava's Mādhavanidāna, Vāgbhaṭa's Aṣṭāṅgahṛdaya Saṃhitā* and *Aṣṭāṅgasangraha*, Bhava Mishra's *Bhāvaprakasa* and so on. Among these the *Aṣṭāngahṛdaya Saṃhitā* is considered as a classic and finds place in the *Bṛihat Trayi*[1], three main texts of *Āyurveda*. The other two texts are *Caraka Saṃhitā* and *Suś'ruta Saṃhitā*.

According to myth, *Ṛsi Bharadwāja* was the first human being to whom Indra, the king of the Gods, revealed the *Āyurveda*[2]. Then *Ātreya* (Punarvasu) communicated the medical science, obtained from *Bharadwāja* to his six disciples: *Agnives'a, Bhela, Jatūkarṇa, Parāsara, Hārīta* and *Kṣārapāṇi*. The *Āyurveda* and Tantra were always inter-linked. *Agnives'a* was the first to compose a systematic treatise of Tantra. After which *Bhela* and the others composed their own Tantras. It is well known that the *Saṃhitā* of *Caraka* is based on the Tantra of *Agnives'a* and numerous other authorities. Thus at the end of every *adhyāya* (chapter) it is mentioned that the work was composed by *Agnives'a* and revised by *Caraka*.

The early Sanskrit treatise on medicine were called Tartras and not *Saṃhitās*. The word tantric begins to appear in the *Sūtra* literature. *Patañjali* in his work Mahābhāṣya used the expressions, such as, sarvaveda and sarvatantra in the sense of "one who studies or is conversant with all the Vedas of all the Tantras". It may be assumed that the early medical Tantras might have existed in *Patañ -jali*'s time and this is apparent by his reference to *vaidyaka* as a recognised branch of study. Apart from individual works, some of the branches of the *Āyurveda* were also styled as Tantras, e.g. agadatantra, *vājīkaraṇa-tantra* and *rasāyana-tantra*. The *Saṃhitā* of *Caraka* refers to expert physicians *kṣāra-tantra* in connection with *kṣāra-prayoga* or application of acrid remedies. Caraka compiled and elaborated the books of *Agnives'a*, particularly the eight *Sthāna*, namely *Sūtrasthana, Nidānasthāna, Vimānasthāna, Sarīrasthāna, Indriyasthāna, Chikitsā-sthāna, Kalpasthāna* and *Siddhisthāna*.

***Aṣṭāṅgasangraha* and *Aṣṭāṅgahṛdaya* :**

Aṣṭāṅgasangraha and *Aṣṭāṅgahṛdaya Saṃhitā* of *Vāgbhaṭa* consist of eigh parts (*aṣṭānga* = *aṣṭa* + anga). In sanskrit *Aṣṭa* means eight and *Anga* means parts. Keeping *Kāyacikitsā*, as the first one in *Caraka Saṃhitā*[3] the other seven are *śālyatantra, śālakyatantra, bhūtavidyā, Kaumārabhṛtya*, agadatantra, *rasāyanatantra* and *vājīkaraṇa*.

Vāgbhaṭa, the writer of *Aṣṭāṅgasangraha* and *Aṣṭāṅgahṛdaya Saṃhitā*, is reffered as the third of the great naames of Indian healing sciecne after Caraka and *Sus'ruta*. Two writers of this name have been found. One is identified as *Vṛddha Vāgbhaṭa* or elder *Vāgbhaṭa* and other one is *Vāgbhaṭa*. At the end of *Aṣṭāṅgasangraha* it is mentioned that the quthor was named after his grandfather *Vāgbhaṭa*, who was known as *Vṛddha Vāgbhaṭa*. His grandfather was a distinguished physician who in turn had learnt about medicine from his father *Siṃhagupta/Saṅghagupta*[4] and his Buddhis teacher *Avalokita*. Younger *Vāgbhaṭa* used the knowledge acquired from his grandfather, the *Vṛddha Vāgbhaṭa*. *Vṛddha Vāgbhaṭa,* is dated after the account of I-tsing, a Chinese traveller. He made valuable reference of a Buddhist named as *Vāgbhaṭa* who wrote a medical compendium of the eight topics of medicine. For *Vāgbhaṭa* we have also the Prakrit from Bahata *Siṃhagupta* from *Saṅghagupta* (A.B.Keith)[5].

A major portion of the *Aṣṭāṅgasangraha* is recognised as a very old work and is utilised in *Aṣṭāṅgahṛdaya Saṃhitā* for the lucid explanation of the same. The *Aṣṭāṅgasangraha* is composed of a mixture of prose and poetry, which reminds us a Caraka and *Sus'ruta*. It contains 150 *adhyāyas* and its connection with Susruta is found closer than that of *Aṣṭāṅgahṛdaya Saṃhitā*.

However, the *Aṣṭāṅgahṛdaya Saṃhitā* contains 6 *sthnās* and 120 *adhyāyas*, according to the Tibetan sources. The first five parts contain 80 and the last contains 40[6] *adhyāyas*. *Aṣṭāṅgahṛdaya Saṃhitā* conroms to more closeness

with *Caraka* than with *Sus'ruta*, though both *Caraka* and *Sus'ruta* are quoted there. For example, the *Kāyacikitsā* chapter is indexed as the first one in both the *Caraka Saṃhitā* and the *Aṣṭāṅgahṛdaya Saṃhitā* but in the *Sus'ruta Saṃhitā* it is placed in the third chapter. Similarly *Śalyatantra* (General Surgery) is kept in the first chapter of *Sus'ruta Saṃhitā* whereas Caraka and *Vāgbhaṭa* placed it in the third and fifth chapters respectively.

The *Aṣṭāṅgahṛ daya Saṃhitā* also quotes from *Bhela*, *Nimi*, *Kaś yapa* and *Dhanvantari* and in the introduction there are *Ātreya* (Atri's son), *Agniveśa*, and other Rsis. At the end it admits the *Aṣṭāṅgasangraha* as the chief source of *Aṣṭāṅgahṛdaya Saṃhitā*. From the Tibetan *Tangyur,* the *Aṣṭāṅgahṛdaya Saṃhitā* may be placed in the 8th century A.D. or earlier. So *Aṣṭāṅgasangraha* must naturally be still olders and goes back at least 7th century A.D. or earlier.

Synopsis of the Branches of Indian Medicine is given below. Source is C.Vogel's "On Bu-ston's view of the eight parts of Indian Medicine". Chapter-wise serial numbers are given below.

Sus'ruta Saṃhitā	**Caraka *Saṃhitā***	**AHr *Saṃhitā***	**Contents**
1. *Śalyatantra*	3. *Śalyapahartrika*	5. *Śalya*(mthson)	General Surgery
2. *Śālakyatantra*	2. *Śālakya*	4. Urdhvanga(lus stod)	Diseases of eye, ear, nose, throat and head
3. *Kāyacikitsā*	1. *Kāyacikitsā*	1. *Kāya*(lus)	General therapy/ Internal medicine
4. *Bhūtavidyā*	5. *Bhūtavidyā*	5. Graha(gdon)	Psychiatry
5. *Kaumārabhṛtya*	6. *Kaumārabhṛtya*	2. *Bālacikitsā* (byis-pa)	Paediatrics
6. *Agadatantra*	4. *Viṣagara-vairodhika-praśamana*	6. Dangstra(mche-ba)	Toxicology
7. *Rasāyanatantra*	7. *Rasāyana*	7. Jara(rgas)	Rejuvenation
8. *Vājīkaraṇatantra*	9. *Vājīkaraṇa*	8. Vrisa (ro-tsa)	Aphrodisiacs

Spreading of *Āyurveda* and Buddhism in Tibet : The indigenous *Bon* culture of Tibet had its own medical tradition. But that was not systematized science of medicine. It was only after Buddhism gained importance in Tibet Bon medical texts were written[7]. It appears that Indian *Āyurveda* spread to Tibet around the 5th century A.D. with the spread of Buddhism in Tibet. At the time Tibet had no written language but the healing knowledge from India was readily grasped by them. The first among the Indian Buddhists to carry *Āyurveda* to Tibet was a man named Vijaya and a woman named Belhā[8] in 5th century A.D. They were actually physician-saints. According to myth, the goddess *Tārā* had appeared before them and asked them to propagate the knowledge of healing to Tibet. Their son Dungi Thorchog is considered as Tibet's first *'Amchi'*, i.e. lama doctor.

Entry of *Aṣṭāṅgahṛdaya* into Tibet : A Buddhist Perspective : Traces of Buddistic influence are found in *Vāgbhaṭa*. This is the reasoning for assuming that *Aṣṭāṅgahṛdaya* had crossed the border and was transplanted in Tibet. In the 11th century A.D. Buddhism became very important in Tibet. Many renowned Indian scholars had worked earlier selflessly to propagate Buddhism in Tibet. Mention may be made of *Śāntarakṣita, Kamalaśīla* Padmasambhava and last but not the least *Atiś Dīpankar*. They spread the spiritual message from india to Tibet. As a result Buddhism stuck deep roots in Tibetan soil. It flourished as a national mode of philosophical thoughts. On the other side of the border, Buddhism had almost disappeared from India and from Central Asia after the arrival of Mahammud Ghori. Such was the political situation when India was gradually entering the age of Tantrism. Under this circumstance the *Aṣṭāṅgahṛdaya Saṃhitā* reached Tibet probably through Nepal (11th century A.D.) The younger Vagbhata was a descendent of the older one and wrote *Aṣṭāṅgahṛdaya Saṃhitā* based on the earlier work *Aṣṭāṅgasangraha*, and under Buddhist faith. *Aṣṭāṅgasangraha* accepts the authority of Caraka Susruta, while *Aṣṭāṅgahṛdaya Saṃhitā* starts addressing Lord Buddha. It regarded Lord Buddha as an extra-ordinary physician (apū rva vaidya, *Aṣṭāṅgahṛdaya Saṃhitā*, I.I.I) while *Aṣṭāṅgasangraha* mentioned him as a geenius physician from the point of view of mind and body[9].

In Indian studies two broad chapters are explicit- a) mundane and b) supra-mundane. The former is gross while the latter is subtle to subtlest, which

cannot be estimated in human calculative measure. Management of health in respect of a person, mostly by the former group, is not possible as they accepted a basic fact, "let your body liable to be assessed ultimately". Therefore, whatsoever relating to body or physique in respect of an animate is condemned as 'apara'; whereas the psycho-spirituality was accepted by the ṛsi culture, which devoted them in quest of the eternal truth with no obstacle.

Gautama Buddha, particularly be regarded as an exception. He claimed himself to be a physician. His four noble truths (*cattāri āriyasaccāni*) are considered to be the drugs for the purpose. The truths are as follows:

.....that there is suffering/sorrow(*dukkham*)

.....that it has a cause for suffering (*dukkha-samudāya*)

.....that it can be suppressed or ceased (*dukkha-nirodha*)

.....and, lastly, there is a way to remedy (*dukkha-nirodha patipat*)

His enunciations are explained : as a disease occurs, it has causes and as it has causes it has got remedy, as the scope for remedy is there, it can be logically measured. The sorrow, which originated from birth; senility, disease, and separation from dear ones can be removed, if one understands the above mentioned four noble truths. This doctrine was taught by Gautama Buddha as a healer. This is the reason why he is regarded as the supreme physician. (*Aṣṭāṅgahṛdaya Saṃhitā*, regarded him as an extraordinary physician, the Apurva vaidya).

Aṣṭāṅgahṛdaya Saṃhitā conforms more to Caraka; for example, the Kāyacikitsā is kept in the first chapter in both the *Saṃhitā*s, as opposed to *Suś'ruta*, probably because any form of surgery or removal of body parts was restricted in the then Buddhist society around 7th to 8th century A.D. for this reason it is assumed that *Aṣṭāṅgahṛdaya Saṃhitā* , not *Aṣṭāṅgasangraha*, had entered into the Tibetan soil and was allowed to mingle with the local healing system, the *Bhum-shi*.

Entry of *rGyud-zhi* or Four Tantras into Tibet : During the reign of King Trisong Deutsen in early 8th century A.D. the tantric master Padmasambhava, the Guru Rimpoche and the Abbot Śāntarakṣita were invited from India in order to propagate Buddhism in Tibet. During their stay they sent Vairocana

to India to collect religious as well as medical teachings. Vairocana found no distinction between these two teachings. So in addition to procuring religious texts he also brought most important translation of medical work, namely, *rGyud-zhi* or "Four Tantras". Vairocana received the teachings of rGyud-zhi from Asvaghosha's disciple Candranandana[10]. *rGyud-zhi* of "Four Tantras" reached Tibet much earlier to *Vāgbhaṭas Aṣṭāṅgahṛdaya*.

From the 8th century A.D. onwards a lot of Sanskrit texts on medical science were translated into the Tibetan Language. It was Asvaghosha's disciple, Candranandana, who wrote down the teachings of rGyud-zhi/Gyu-zhi or "Four Tantras" and handed them over to the Tibetan translator Vairocana during the latter's pilgrimage to India. Thus we can see that the original rGyud-zhi which became the core-essence text of Tibetan healing science was classical *Āyurveda* advanced by the Indian Buddhists.

Terminological Comparison :

Sanskrit Terminology[11]	*Vāgbhaṭa*(Tib.)[12] (chapter-wise serial no)	rGyud-zhi[13]
1. Kāyacikitsā	1. Kāya(lus)	1. lus
2. Kaumārabhṛtya	2. Bāla (byis-pa)	2. byis-pa
3. Bhūtavidyā	3. Graha (gdon)	4. nad-gdon
4. Śālakya	4. Urdhvanga(lus-stod)	3. [mo]
5. Śalya	5. Śalya(mthson)	5. mthson
6. Agadatantra	6. Dangstra (mche-ba)	6. dug
7. Rasāyantantra	7. Jara(rgas)	7. rgas
8. Vājīkaraṇatantra	8. Vrisia(ro-tsa)	8. ro-tsa-pa

When the terminologies, as mentioned above, of *Aṣṭāṅgahṛdaya Samhitā* and the rGyud-zhi is compared, it is found that the medical terms are identical (E.E.Obermiller, 1935)[14]. This is also important from a linguistic point of view. There is no need for going into the controversial discussions whether or not the rGyud-zhi is based on a Sanskrit translation.

Preservation of teh classical healing systyems in Tibet : During the reign of Tibetan king Srongtsan Gampo in the first half of 7th century A.D., Buddhism was formally introduced. He also took initiative to derive Tibetan alphabets from the Devnāgari script. Before that Tibet had no written record. After this it was made possible to translate Pali and Sanskrit Buddhist texts word by word into Tibetan language. This process then went on for centuries and thus Indian healing science got preserved in Tibet. Medical texts of Bon, the Tibet's indigenous religious culture were written after the arrival of Buddhism in Tibet and show the influence of Indian *Āyurveda*.

Around the 11th century, Tibet's great translator Rinchen Sangpo (958-1056 A.D.) and Jalandhara jointly translated[15] the Bon, the Tibet's indigenous religious culture, which grew in the land of snow. The same was codified with commentaries into the Tibetan *Tangyur* collection during the 14th century A.D The tratise is significant because it is the chief medical work available both in Sanskrit and in Tibetan revealing the link between India and Tibetan medical literature. Before that Vairocana had translated rGyud-zhi ("Four Tantras") in the 8th century and presented it to the Tibetan king Trisang Deutsen and his court physian Yuthog Yonten Gonpo-I.

Kangyur (Tibetan, *Kang-gyur*) and *Tangyur* (Tibetan Stan-gyur) represent large collection of works translated primarily from the Sanskrit and subsequently from Chinese languages between 7th and 16th centuries A.D. approximatley five volumes of *Tangyur* devoted into the healing science and some others to astronomy or astrology.

Āyurvedic works in *Tangyur* : There are 22 different Āyurvedic works in *Tangyur* which were originally written by Indian pundits like Nagarjuna, Vagbhata, Chandranandana, Vyadipada and others. Most of these works were translated during 8th to 16th century A.D from Sanskrit to the Tibetan language. These texts are found in different volumes depending upon the different edition of *Tangyur* on the basis of *Snar-thang* edition of *Tangyur* the following list is prepared[16]:

1. Works of Nāgārjuna (Lu-dub) : 5 volumes, namely, Yogaśatak, Vaidya Jīva Śūtra, Avabheṣaja Kalpa, Ārya-rajnāmā Vatikā and Ārya-Mūlakoṣa mahaousadhavalī.

2. Works of Vāgbhaṭa (Pha-gol) : 2 volumes, namely, Aṣṭāṅgahṛdaya Saṃhitā nāmā and Aṣṭāṅgahṛdaya Saṃhitā nāmā Vaiduryaka bhāṣya.

3. Works of Candranandana (Da-wa-ngon-ga) : 3 volumes (Padārtha Candrikā prabhāsa nāmā Aṣṭāṅgahṛdaya vritti, Vaidya Aṣṭāṅgahṛdaya vrittan Bhessaja nāmā and Vaidya Aṣṭāṅgahṛdaya vritti.

4. Works of Vyadipada (Bha-lipa) : 2 volumes, namely, Rasa Siddhi Śāstra nāmā and Rasāyana Śāstrodhṛti.

5. Works of other authors : 10 volumes, namely, Ravigupta's Siddhasāra Danendra's Nāḍīparīkṣā and others.

All these works deal with various aspects of medicine. Most of these are lost and are no more available in Sanskrit, either in print or manuscript form[17]. In the non-canonical category, there is a long list of medical text on Tantra (i.e. rGyud-zhi) authored by the Tibetan scholars. The number of succh category of works goes beyond two thousands.

Conclusion : A comparative study of the Aṣṭāṅgahṛdaya Saṃhitā and the Tibetan rGyud-zhi is necessary in the present context to promote deeper understanding of Indian influence on the Tibetan healing culture, in particular, the unique Tibetan aspects and influences of other neighbouring medical cultures that entered Tibet and can be traced in this main Tibetan medical treatise of the 11th century.

References:

1. *Caraka Samhita. 2000.* Text with English Translation and Critical exposition based on Cakrapanidatta's *Ayurveda* Dipika, by R.K.Sharma and Bhagwān Dash, Vol– I, Second edition. Varanasi: Chaukhamba Sanskrit Series Office.

2. Clifford, Terry. 2017. *Tibetan Buddhist Medicine and Psychiatry: The Diamond Healing*. Varanasi : Motilal Banarsidass Publishers.

3. Excerpts from the Report on the Status and Strength of Tibetan Medical System (*Swarigpa*) and its Association with *Ayurveda*. 2008. The department of AYUSH, Govt. of India.

4. Hati, A. K. 2017. *History of Science in India*, Vol- II, Medicine and Pharmacology. Kolkata: The Ramakrishna Mission Institute of Culture.

5. Jolly, Dr, Julius. 1977. *Indian Medicine*. Translated from German by C.G. Kashikar. Delhi: Motilal Banarsidass Publishers.

6. Keith, A.B. 1993. *A History of Sanskrit Literature*. Delhi: Motilal Banarsidass Publishers.

7. Mitra, Dr. Jyotir, 1985. *A Critical Appraisal of Ayurvedic Material in Buddhist Literature with Special reference to Tripitaka*. Varanasi : Jyotiralok Prakashan.

8. Murthy, K. R. Srikantha. 1991. *Vagbhata*'s *Astā ngahridayam*, Vol-I. Varanasi : English & Sanskrit, Krishnadas *Ayurveda* Series.

9. Obermiller, E. E. 1981. *Ways of Studying Tibetan Medical Literature: Tibetan Medicine*, Series no -12. Dharamsala.

10. *Swarigpa* and *Ayurveda*. 2008. Edited by Pabitrakumar Roy. Sarnath, Varanasi: Central Institute of Higher Tibetan Studies.

Bio-Profile of the Author:

Special Revenue Officer,
Government of West Bengal
Email: joyrudra33@gmail.com

Iconography of Several Forms of Pārvatī Images in Eastern India

Niladri Kumar Gunin

Abstract : *This paper describes several iconographic forms of Parvati, the consort of Lord Shiva, as recovered from eastern India. The geographical boundary of Eastern India mainly comprises of West Bengal,Bihar,Orissa and Jharkhand. In this vast tract of land six varieties of Parvati images have been noticed. These images are Uma, Lalita, Gouri, Ardhanarisvar, Panchatapa and Linga with Sakti. These images are very well executed and are of immense artistic merit.The Puranic texts also refer to the varied iconographic features of Parvati images. Beside this, some specific examples of the goddess have also been incorporated in this paper. It may be noted that among many other Sakti cults of Eastern India Parvati cult has occupied a very significant position. The archaeological evidences not only show her popularity in this region but also indicate a distinctive growth of Sakta tradition who's principle deity was Parvati.*

Key words: Parvati , Iconography, Puranic text, Shakta , Eastern India.

Introduction : Eastern India with its large repository of sculptural art conveys a great deal of artistic persuasion from time immemorial. The artistic activities were boosted by the several dynastic inspirations. Eastern India has been considered as an important centre of three great religions of India namely: Buddhism, Brahmanical and Jainism. From fifth / sixth centuries, the region had witnessed the outburst of

artistic display on stone which reached its efflorescence stage during early medieval period, coincided with the firm establishment of Pāla- Sena dynasties. At this time the ruling dynasties assumed a direct role in patronage and created an appropriate atmosphere for the artistic spirit and image making.

The end of Gupta Empire ushered a new phase of history with a new socio-economic and cultural phenomenon which lasted for roughly seven centuries (600 - 1300 C.E.). This phase has been termed as the early medieval age. During these centuries, kingdoms in both north and south India proliferated and regularly turned over. Therefore, at that time, India was fragmented into numerous regional kingdoms. As the rulers of these kingdoms battled and formed alliances, they employed the system of paramount and subordination begun during the Gupta era, with some rulers being overlords and others vassals. Also, successful rulers demonstrated their power by granting land to officers, Brahmins, and temples. The outcome was a political pattern labelled as Indian feudalism. Eastern India several ruler families ruled during this period. The geo-political connotation changed in different period of time under several political rulers. The religious history and cultural phenomenon changed under the ruling dynasty.

The geographical boundary of eastern India mainly comprises of West Bengal, Bihar, Orissa, and Jharkhand. In this vast tract of land six varieties of Parvati images been noticed. These images are Umā, Lalitā, Gourī, Ardhanarīsvara, Pañchatapā and *Liṇga* with *Śakti*. The images are generally very well executed and are of immense artistic merit. The four-armed goddess stands in the samapadasthànaka pose having the attributes like *Liṇgam* with rosary in the upper right, a *trióandi* or trident in the upper left hands. She bears a boon or pomegranate in the lower right and vase in the lower left hand. The goddess is represented wearing a *jañāmukuña* and other ornaments on her body. She also wears a sacred thread. There is a halo around her head and the usual flying vidyādhara figures on either side of the *Krīttimukha* shown on the top of the decorated elliptical *prabhāvalī*. The iconography suggests that

usually the image of the goddess is attended by two female attendants each standing on either side of the goddess with a fly-whisk in their respective right hands. There is a pair of plantain trees near each of the female attendants and the figure of a lion and an antelope are shown on the right and left sides of the goddess respectively. The lion and antelope are represented seating beneath plantain trees. Heaped *naivedya* pots are placed on either corner of the lower section of the pedestal, when the figure of the creeping iguana is also shown in a separate compartment beneath the lotus pedestal of the goddess. Another iconography of goddess *Gouri* is represented as an unmarried girl either with two hands in the *abhaya* or the *varada* poses or with four hands three of which bears *akshamālā, padma* and *kamandulu;* while the fourth hand is in the *abhaya* pose.

ICONOGRAPHIC REPRASENTATION

PĀRVATĪ

Pārvatī the deity is represented as having four arms. All the four arms of the goddess bear an *akshamālā,* an image of Lord Shiva, an image of Lord Ganesha and *a kamandulu*. The abode of the goddess is between the *agni-kundas.*

UMĀ

Goddess Pārvatī is worshipped in various aspects. She is also worshipped also as goddess Umā. In the form of Umā, the iconography suggests that her four hands bear an *akshamālā* a mirror, a lotus and a *kamandulu.* When Gourī is worshipped as Pārvatī, the deity is represented as having four arms. All the four arms of the goddess bear an *akshamālā,* an image of lord Shiva, an image of lord Ganesha and a *kamandulu.* The abode of the goddess is between the *agni-kundas.*

GOURĪ

Another iconographical feature of the goddess Gouri represents her as a female figure standing upon the back of an alligator. This particular image of Gourī is generally worshipped in household by the people who desire wealth and prosperity. The deity is shown as having four hands. In two of her hands, she bears the *akshasåtra* and the *padma;* while the other two are kept in *varada* and *abhaya* pose respectively.

LALITĀ

The *Agni Purāṇa* has prescribed specific attributes for the Lalitā that she adorned with a spear, a small pitcher or *galantikà* (a pitcher with a hole at the bottom) and one hand showing conferring boon. Moreover she would have also a mirror and a collyrium stick in her hands. She will be accompanied by Ganesha and Karttikeya. Generally the images are found standing in Samapadasthānaka position on a simple lotus pedestal and her vehicle is igunai.e*godhà.*

ARDHANĀRĪŚVARA

Ardhanārīśvara is one of the sixty four manifestations of ParaŚiva, the aspect of Lord Śiva, who is Absolute, beyond all human comprehension and is hence considered the *Nirguna Brahman* (the Supreme One, who is beyond attributes). Ardhanārīśvara is a composite androgynous form of Śiva and his consort Pārvatī. This form is shown as a fusion of half-male and half-female forms, split down in the centre. The right half is depicted as Śiva, while the left half shows the female form of Pārvatī. The very name Ardhanārīśvara implies "the Lord who is half-woman". This form of Śiva is also referred to as *Ardhanarisha, Ardhanarinateshwara, Ardhayuvateeshwara, Ardhagaureeshwara, Gaureeshwara, Naranari, Parangada and Ammiappan.* Since Ardhanarīsvara represents the perfect synthesis of male and female forms, it also embodies the *Prakriti* and the *Purusha,* the feminine and masculine energies of the cosmos and also illustrates how Śakti, the Sacred Feminine, is inseparable from Śiva,

the male principle of God. This form also symbolizes the all-pervasive, all-enduring nature of Lord Śiva. The origin of the concept of Ardhanarīśvara can be traced back to hermaphrodite figures in both the ancient Hindu and Greek cultures. The earliest images of Ardhanarīśvara date back to the Kushana era, records of which exist from the first century CE.

It is believed that the iconography of Ardhanarīśvara developed and evolved during the Gupta period. The concept of Ardhanarīśvara continues to be a popular iconographic form and can be found in most Śiva temples throughout India. But strangely, there are very few temples in this country that are actually dedicated to this deity.It is believed that the early iconography of Ardhanarīśvarara could have been inspired by the Vedic literature's composite figure of Yama-Yami, the combination of the primordial Creator *Vishvarupa or Prajāpati and Agni*, the Fire God. This figure appears as a bull, which is also a cow. Interestingly, the androgynous forms of Hermaphroditus and Agdistis are famous in Greek mythology as well. The Bṛihadāranyaka Upanishad says that this androgynous form occurs as a result of Puruùa splitting himself into two parts, male and female. These two halves copulate, thereby producing all life. The Shwetashwatara Upanishad also talks about Rudra, the antecedent of the Puranic Śiva, the maker of all and the root of Puruùa and Prakriti (the female principle), adhering to Samkhya philosophy. The earliest images of Ardhanarīśvara show the male half as ithyphallic with an *urdhvaliṇga* and the female left having a rounded breast and holding a mirror. This is the commonest representation of Ardhanarīśvara, which is also universally recognized. The right side which shows the male half has matted hair with a skull and crescent moon, while the left female side has well-combed hair decorated with pearls and flowers and wears a *patra-kundala* (earring). The face of Ardhanarīśvara has one common third eye as well. The earliest Kushan images showed Lord Ardhanarīśvara in a simple two-armed form, but later texts and sculptures depict a more complex iconography of the deity. One can also find the deity with three, sometimes even

eight, arms. In the case of three arms, Pārvatī "owns" only one of them, thereby showing her submissive, less dominant nature.

In actuality, the principle of Ardhanarīśvara seeks to unify the two sects of Shaivism and Shaktism, dedicated to Śiva and the Devã respectively. Very rarely, in some schools of Shaktism, one can also see the female half to the right side of the Ardhanarīśvara image half to the left side. The male half dons a jata or piled, matted hair twisted on top of his head, adorned with a crescent moon. Sometimes this *jatā* is also ornamented with snakes and the Ganga (Ganges), flowing in a stream through the hair. In the right ear is a makara-kundala or sarpa-kundala (serpent-earring). In some pictures, the male eye is depicted as smaller than the female one (this is also mentioned in one other verse of the Ardhanarinateshwara stotra and a half-moustache is also seen. While most portraits show both half-forms sharing the *trinetra* or the third eye, sometimes, a half third eye is shown on the male side of the forehead and Pārvatī's side of the forehead is adorned with a half bindi or round dot. In the two-armed form, one right hand holds a skull cap or *kapāla* and the other shows the varada mudra (gesture of succour). In the four-armed version of Ardhanarīśvara, one of the right hands holds a *parashu* or axe and another one gestures an abhaya mudra. Sometimes, one of the right arms is slightly bent and rests on the head of *Nandī* (Śiva's mount, the Bull), while the other holds the *abhayamudrā*. In yet another pose, the right hands hold the Trishula or Trident and an *akshamālā* or rosary another makes an *abhaya* or *varada hasta*. Sometimes, the four-armed version shows the deity playing a Veena or lute, using a left and a right arm. The other male arm holds a *parashu* and the female one, a lotus. The male half of the body has a flat masculine chest, broader shoulder, wider waist and muscular thigh. He also wears a *yagñapavita* or sacred thread across the chest. This sacred thread may sometimes divide the torso into its male and female halves.

In some images from North India, the male half may be depicted shorn of any clothing. In South India though, the male side is usually covered in a dhoti (flowing

garment tied at the waist) made of cotton or silk, tiger-skin or a *sarpa-mekhala* or serpent girdle of sorts. The right side usually rests on a *Padma-Pitha* or *lotus pedestal.* The entire right half is also usually covered with ashes. The female half of the deity is shown having a *karanda-mukuta* or basket-shaped crown. The well-combed hair is neatly held in place. The left ear wears a *valika-kundala.* A bindu or *tilaka* adorns her forehead. While the male half of the neck is shown ornamented with a hooded serpent, the female neck has a blue lotus. In the case of two-armed icons, the left hand rests on Nandi's head, hangs loose or holds a flower, a mirror or a parrot. Sometimes, the parrot is perched on Pārvatī's wrist. In the three-armed portrait, the left hand holds a flower, a mirror or a parrot. The four-armed female form shows one of the left arms resting on Nandi's head, while the other is bent, holding a *nilotpala* or blue lotus. Sometimes, this hand also hangs loosely to her side. Her hands are usually adorned with ornaments like a *keyura* (bracelet) or kankana (bangles).The female half of the deity has a well-rounded, full bosom and a narrow feminine waist embellished with various *haras* or waistbands. She is also adorned with other ornaments, made of diamonds and other gems. She is shown having a fuller thigh and a curvier body and hip than the male part of the icon. The torso, hip and pelvis of the female are exaggerated so as to emphasize the anatomical differences between the halves. The female part of the body is always fully clothed. She wears a multi-coloured or white silken garment or sari down to her ankle and one or three girdles around her waist. The left half wears an anklet and her foot is painted red with *Alta* or Henna. The left leg usually rests on a *Padma-Pīṭha.* The Pārvatī half is smeared with saffron and is shown to be calm and gentle and is usually parrot-green or dark in colour.

The Ardhanarīśvara is often shown in the Tribhaṅga posture, that is, bent at three areas of the body: head (leaning to the left), torso (to the right) and right leg or in the sthanamudra position. If the deity is shown standing on a lotus pedestal, it is

referred to as the *samapada*. Very rarely is the Ardhanarīśvara shown in a sitting position.

Liṇga with Śakti

The inclusion of the Liṇga with Śakti images into the fold of Saivaism remains inconclusive. D.C Sarkar referred to several literary references indicating the worship of the Syncretic form. According to Sircar, the *malatimadhava* of Bhavabhuti (8th Century A.D) refers to a female yogini who worshipped the *kapalika* at the *Sriparvata* and described the vrata by the terrible activities of *Aghoraghanta* and his female disciple *kapalkundala* who are referred from the *sriparvata* and staying near the *mahamanasa* (at *padmavati* in the Gwalior state) containing a temple of Chamunda to whom they were going to offer *malati* sacrifice. This eighth century text not only testifies to the prevalence of human sacrifice before the mother goddess but also to interesting fact that the kapalikas worshiped both Śiva and Sakti. The kapalika group are often called *Viracara* and *vamachara*. This kapalika group worshiped Sakti in conjuction with Śiva. In this respect D.C Sircar referred to the Sulkis of Orissa who although their family deity was *Stambesvari*, claimed to have been exclusive worshipers of Mahesvari and he pointed out that "the very name of the goddess shows that she was made on at a sthamba indicating a Liṇga.....and thus that subordinate to Śiva". He seemed to have accepted "this Liṇga with the representation of Sakti" from Eastern India as example of such a goddess.

PAÑCHATAPĀ

There are two major events pertaining of Pārvatī, as indicated earlier, with the first being her desire to win Śiva as her husband and the second being her desire to have a golden complexion. A considerable number text provides detail description of the austerities of Pārvatī. The first event pertaining to her winning Śiva as her husband, is frequently associated with (a) the burning of *Kama* the god of love, who sent by

Brahma to incite Śiva with passion for Pārvatī, and (b) with the pride of Pārvatī who believed that beauty alone was enough to win Śiva as her husband as in the *Brahmavaivartapurāṇa.*

According to *Kumārasambhaba* of Kalidas where in the summer she sat in the middle of the four blazing hot fire and gazed at the sun even spurning subsistence of fallen leaves. She developed a close familiarity with the deer which ate *kusa* grass from her hand even comparing her own eyes with theirs. She wore a tawny bark garment and matted hair. Her waist was red from string of *munja*-grass serving waistband. In her hand the finger from plucking tender blade of *kusa* grass , she carried a rosary of beads. Various textual descriptions of *tapasvini*- Pārvatī have been found among which one example is given by Gapinath Rao stating that she holds a rosary, images of Śiva and Ganesa and the *kamandula* in her four hands. Her abode is between *agni - kundas.* The *pañcagni-tapasyā* of Pārvatī signifies the performing of penance while surrounding by four pots of fire. She may be depicted either seated or standing in the rigid *samabhanga* pose. In *pañcagni-tapasyā* scene, Pārvatī depicted in a rigid *samabhanga* pose flanked by four *agnikundas,* two near each foot. She holds a rosary in her raised right arm while in her left lowered left hand she holds a *kamandula.* She wears a minimal amount of adornment, an antelope skin over her left shoulder, and lower garment that hangs her ankles. Some examples shows Pārvatī is seated in *ardhaparyanka* on a lotus cushion with her right knee raised. Her front right arm supported by her knee, is broken off while the left hand is lowered, holds a *kamandula* . The uplifted back right hand holds a rosary. The *sruk* or *ketaki* flower or *tridanda* holds its back left hand. She has elongated ears and her eyes are half closed in meditation. She wears a loose *ekavali* that falls in between her breasts, a broad *yajñapavita* and a lower garment that falls to her ankles. She is surrounded by four *agnikunda,* two on either side superimposed one above the other.

Archaeological Evidences : *Parasuramesvara* group of temples are nearly identical and among these temples *Parasuramesvara* is a better preserved temple. Beginning from the right we can see a dancing figure; a standing male holding a rosary and a vase; standing Sårya; a kneeling Bramhà pouring libations on seated Agni; a diminutive Ganesha seated next to a vessel at the foot of Agni; Śiva and Pārvatī, each in a swaying pose of Śiva holding the right hand of Pārvatī in his left hand ; Two standing females (*Srīdevī* and *Bhudevī*) with one resting her right hand on a staff or a sword plunged into the ground and the other lifting a sword over her head; Vishnu holding a pot, with his front two hands, ready to pour water in the ceremony of giving away the bride; a small attendant, beneath the vessel held by Vishnu, who holds a platter or garland over his or her head. In a fragment from the compound of the late eighth-early ninth century *Manikesvara* temple at Suklesvara, the placement of Śiva and Umā is reversed. Umā is badly damaged. She is seated in *ardhaparyanka* with her right knee raised and her bent left thigh placed under her body. She is depicted in profile as she faces the board and Śiva. Her left hand stretches across the board and holds an indistinct stick-like object. Śiva, who is seated in a bawdy *urdhvaliṇga* feature is clearly exposed. He holds a dice in his uplifted right hand while his left hand is in front of his chest. A seated attendant is behind him. *Kalyanasundara-murti* from Bihar-Bengal, one of the earliest is the Pala period stele from Pacher (Gaya district) now housed in the Patna, museum, which possibly dates to the second half of the eighteen century. Both figures are somewhat stout in body proportions. Śiva stands in a slightly flexed *tribhañga* pose with his legs leaning towards Pārvatī. His right hand receives her right hand while his left hand is on his hip. His uplifted back right hand displays *vandanabhinayi* while holding a small, flat disc above the head of Pārvatī. His left hand holds a trident. He faces outward and appears immersed in reverie. Pārvatī stands with her left leg crossed behind the right and her body turned slightly inward towards Śiva. Her raised left hand holds a mirror. Her head is tilted down somewhat and she likewise is absorbed in reflection.

Bramha appears seated between them performing the *homa* ceremony. They are flanked by small images of Indra and Vishnu on the right and left respectively, each of their inside hand uplifted and holding a vessel. The rounded top of the backslab has an alignment of the *navagrahas* while the lion and bull mount appear on the pedestal. In the 12th century image from Muhammadpur, West Bengal, preserved in the Indian museum, Kolkata, Pārvatī is flanked by a cauri- bearing female attendant either side. She is two armed. Her lowered left hand holds the meandering stalk of an *utpala* with the closed blossom appearing opposite her face. Her lower Right hand displays varada. A meandering stalk, with an open lotus framing her hand, also rises up on her right with its open blossom opposite her face balancing the *utpala* on the left. She is richly adorned and her tall *kirita-mukuta* is framed by an oval- shaped halo with flanking *vidyadharas*. *Vyala* Motifs decorate the sides of the backslab while a music playing *kinnara* is above the *makara* on other side at the base of the adumbrated *torana* design. Along the top edge is an alignment of five seated deities. Śiva at the apex is flanked by Ganesha, Bramha, Vishnu and Skanda.

In a bronze image of *pañcagnī -tapasyā* from Nalanda, Bihar an iguana is crawling near her right foot while a lion and a rather fat deer are carved on the front face of the pedestal. Her lower right hand is broken off while the damaged in uplifted back hand it holds a rosary. Her lower left hand hold a *kamandalu* (spouted vessel) while the raised back holds a trident. She stands in a *samabhañga* pose and wears minimal amount of adornment, including elongated and ornamented earrings, a necklace, *yajñapavita* and a lower garment, secured with a girdle, that hangs to her ankles. Her ornate aureole is decorated with the crescent-moon on the right and the sun on the left. An *agnikunda* is placed at each corner of the pedestal. The image, now in the National Museum, New Delhi, can be dated to the beginning of the ninth century, during the reign of Dharmapala.

An Orissan example of Ekapāda-tapasvīnī Pārvatī appears as a detached image leaning against the south wall of the Jagmohana of the Kosalesvara Temple at

patnagarh in the Bolangir district. The left leg of Pārvatī is broken off at the hip but it was originally uplifted and placed horizontally across her right leg at the knee. Her front hands as joint hands are visible in front of her body. They are broken off, so it is not possible to determine if they held any object such as a water pot (*kamandalu).* Both uplifted back hands are broken from the elbows. Her head, mostly obliterated, is framed by an oval-shaped, crenulated halo. On the right side of the halo, above her missing right hand, is a Śiva-liṇga while on the left side above her missing left hand, is an image of Ganesha.

A unique stone sculpture of the Goddess from Sonarpur, Uttar Dinajpur, North Bengal, has been considered as the main centre of worship of Lalitā as suggested by Gauriswar Bhattacharya. This image is shown carrying collyrium stick in her upper right hand and other three broken hands clearly indicate that Goddess has similar attributes as has been noticed in the previous image. At the back of the Goddess a double petal like halo is seen. Back stele is beautifully curved with *vidyadharas, gaja-sardula* and peacocks. Other characteristics remain the same. It is interesting to note that in Bengal each and every image of Lalitā has revealed similar iconographic traits.

There is another 11th century stone image of Lalitā hailed from Barabelun, Bardhaman. Here Lalitā stands on a Lotus pedestal in *samapada* posture.The four handed Lalitā is shown holding in her upper right hand the usual collyrium stick and her lower right hand has been depicted in *varada mudra* with pomegranate on the palm. The upper left hand is broken but the position of her hand shows that of holding a mirror. Devā is heavily jewelled and adorned with *Jatāmukuta.* On the pedestal a fire vessel has been depicted. In all these images, the attributes of the Goddess are same, differences occur only in the mirror details.

Another beautiful figure of Lalitā hails from Rajshahi district, Bangladesh. The Goddess shows some unique characteristics and plastic style which have been created by the artist excellently. The image has all her identifiable attributes. In her

four hands, she holds the Collyrium stick and mirror in the upper hands, while in her lower right hand is holding a fruit and her lower left hand touches the head of Kartikeya. Devi has a beautiful smiling face with divine calmness. She is richly ornamented. She is standing on lotus seat in *samapada* pose, whereas her accompanion display the *tribhanga* pose. Her *Vahana Godhika* is found on the pedestal, flanked by two devotees. Admittedly, all these images were created with iconographical precision following the Puranic exposition.

Conclusion : It may be noted that among many other Sakti cults of Eastern India Pārvatī cult also occupied a significant position. Archaeological evidences not only show her popularity in this region but also indicate a distinctive growth of *Sàkta* tradition whose principal deity was Pārvatī. The above mentioned images of Eastern India clearly pointed out a regional development of goddess *Pārvatī* with specific iconography features. These images have followed the description of the *Agni Purāṇa* and a number of images, found from different parts of Eastern India have always been characterized by holding collyrium stick and mirror. These iconography features of the Goddess are noticed only in Eastern India. In South India they followed different iconography tradition of *Pārvatī*. These images have close affinity with the iconographic descriptions of other *Purāṇas* where noose, bow and goad have been recognised as her common attributes. The foregoing account makes it very clear that there were several centres of Pārvatī worship in India, stylistically, ichnographically and conceptually the images of Pārvatī of this region portray complete different form of the Goddess.

References :

1. Asher, Frederick M 1980.*The Art of Eastern India 300-800.* Minneapolis: University of Minnesota Press.

2. Banerjea, J.N 1956.*The Development of Hindu Iconography*. New Delhi:MunshiramManoharlal Publishers; 3rd Rev edition.
3. Basu, Durga. 2016. Lalita in the Art of Bengal: *Kalā: The journal of Indian Art History Congress*: S.S.Biswas (ed.). Vol: XXII. p.60.
4. Banerji, R.D. 1981. *Eastern Indian School of Medieval Sculpture*.Delhi: Ramanand Vidya Bhawan.
5. Das Gupta, Kallol. 2011. *A Note On The Liṇga with Śakti Images In Bengal Art*. Kolkata: Proceedings of the India History Congress. pp.1095-1096.
6. Donaldson, Thomas Eugene. 2007. *Śiva Pārvatī and Allied Images*. New Delhi: D.K. Print world (P)Ltd. pp.131,154-155.
7. French, J. C. 1928. *The Art of the Pala Empire of Bengal*.Oxford:Oxford University Press.
8. Ganguly, M. M. 2016. *Handbook to the Sculpture in the Museum of BangiyaSahityaParishad*. Calcutta:Wentworth Press.
9. Gangoly, O. C. 1978.*South Indian Bronzes*. Calcutta: Nababharat publisher.
10. Huntington, Susan L. 1984.*The "Pala-Sena" School of Sculpture*. Leiden: Netherlands: E.J. Brill.
11. Joshi N.P. 1996. *TapasviniParvatiIconographic Study of Parvati in penance*. New Delhi: New Age International; 1 edition.
12. Kramrisch, Stella. 1933. *Indian Sculpture*.Calcutta: Y. M. C. A. publishing house.
13. Majumdar, R.C. 2011.*The History of Bengal; Hindu periodVol-I*.Dacca:BR Publishing Corporation.
14. Mitra, Sisirkumar. 1979.*Eastern Indian Bronzes*. Calcutta:Centre of Advanced Study in Ancient Indian History and culture, Calcutta University.
15. Pandey,Mithila Sharan. 1963.*The Historical Geography and Topography of Bihar*. Varanasi : MotilalBanarsidass.
16. Panigrahi, Krishna Chandra 1981.*History of Orissa; Hindu Period*.Cuttack:KitabMahal.
17. Rao, T.A. Gopinatha. 1997. *Elements of Hindu Iconography*. Delhi: MotilalBenarasiDass Publishers. p.360.
18. Trivedi, R.D. 1981. *Iconography of Pārvatī*. Delhi: Agam Kala Prakashan. pp.31-72.

FIND SPOT OF PARVATI IMAGES IN EASTERN INDIA







SOME PHOTOGRAPHICAL EXAMPLES FOR SEVERAL FORMS OF PARVATI IMAGES IN EASTERN INDIA



1. Image-Liṅga with Śhakti image
Find Spot-Dulmi-Jharkhand,
Date-11th Century C.E.Preserved in a Local Temple



2. Kalyansundaramurti (Wedding of Siva and Parvati)
Courtesy- RDPN24 (alamy)



3. Lalitā, North Bengal, Courtesy- British Museum



4. Uma-Maheswar image in Bihar.
Courtesy- ee16b1ddd83468dc1b244469a52d9db4

Bio-Profile of the Author :
Research Scholar
Department of Archaeology, University of Calcutta
Email : dampu09@gmail.com

Health Governance and Managing Challenges Towards Achieving Universal Health Coverage in India

Sanchita Chakrabarti

Abstract : *Providing good health is the priority of decision makers for developing and developed countries. In this regard state intervention in health is universal to all countries. Right after independence the Indian state formulated several health policies to make health accessible and affordable to all which has led to improvements in health indicators. In spite of the progressin terms of health indicators the Indian health system can be characterized as a highly commercialized healthcare system owing to abysmally low government spending on health with failing public health facilities, scarcity in health workforce and infrastructure and increasing out of the pocket expenditure by households on health.*

The objective of this paper is to discuss the problems of the Indian health system and look into the concept of health governance and experiences of some Asian countries in order to achieve 'Good Health at Low Cost'.

Keywords : public health, healthcare, health governance, community, participation, preventive, health resources, equity, inclusiveness, affordability

Introduction : India's health policies since independence have aimed at making healthcare affordable and equitable. The Report of Health Survey and Development Committee, 1946, popularly known as the Bhore Committee Report aimed at developing a country where "no individual should fail to secure

adequate medical care, curative and preventive because of inability to pay for it". In 2010, the Planning Commission constituted the High level Expert Group (HLEG) which reiterated the aim of achieving Universal Health Coverage (UHC) for providing affordable healthcare to all citizens. The HLEG's definition of UHC is, "Ensuring equitable access for all Indian citizens resident in any part of the country, regardless of income level, social status, gender, caste or religion, to affordable, accountable and appropriate, assured quality health services (promotive, preventive, curative and rehabilitative) as well as public health services addressing wider determinants of health delivered to individuals and populations, with the government being the guarantor and enabler, although not necessarily the only provider, of health and related services"(HLEG 2011: 3).

Making health equitable and at the same time accessible has been reiterated in almost all policy documents from the Bhore Report of 1946 to The National Health Policy (NHP), 2017. The recent NHP, 2017 reiterated the objective of achieving universal health coverage and improving public health care system.

Health In India After Independence : The constitution of World Health Organization (WHO), 1948 defined health as "a state of complete physical, mental and social wellbeing, not merely the absence of disease or infirmity" (WHOa).Therefore in the broader sense, the concept of health comprises of public health and healthcare which are not identical.The domain of public health is largely preventive and promotive while curative care is what we understand as healthcare. Curative care is not the only criteria for maintaining the health and wellbeing of the population. The health of the population is determined by several criteria which include environmental, biological, socio-economic factors, information technology and availability and utilization of health services. The high burden of disease and death in any country can be tackled with the help of an effective public health system which is cost effective than any curative care.Thus public health is a holistic approach to develop and improve the determinants of health for a healthy living. It requires adequate food and nutrition for the masses, drinking water and hygienic environment, mother and child care initiatives which focuses on the preventive and promotive aspects of health. To prevent diseases rather than curing them is the most effective approach in maintaining the health of the population. By adopting these conditions it reduces

a population's exposure to disease and therefore is an essential part of country's development infrastructure. Experiences show that unless these preconditions are fulfilled the morbidity pattern does not change and incidence of communicable diseases increases.

Good health of the population is required for economic and social development.Providing access to good health has been the concern for developing and developed countries across the globe. Addressing the policy of health in a political system is determined by the relative role of the state and the market in the production and distribution of healthcare services. The proportion of state intervention and market functioning in healthcare varies across countries but some types of state intervention in provision of healthcare is universal (Tuohy and Glied 2012).

Right from independence the Indian state has been highly interventionist in nearly all spheres except for the provision of public health which is not rooted in the Indian political culture (Mehta 2003). Public health in India has been "one of the most neglected aspects of development in India" (Dreze and Sen 2002). The expansion of democratic institutions in India was a crucial factor which contributed to the degeneration of public health. The Emergency had provided the impetus and by the 1980s had made the electorate more vigilant about their rights. The decision makers had understood that in a democratic establishment specialized curative/clinical services had a larger appeal towards the electorate rather than funding public goods (such as drinking water, sanitation etc.).Hence public funds for health and education in India have been funnelled towards tertiary rather than primary levels. Experiences showed that the non-democratic countries of East Asia were more successful in improving health outcomes because their limited resources were focused on building public health measures rather than on providing advanced curative services **(**Dasgupta 2005**)**. The democratic state had failed miserably in improving health of the population and with the rise of the disease burden thefocus on health was inclined towards curative services rather than on preventive services. In the next few decades the discourse and the reality of the health situation in India came to be shaped by four major factors which are major impediments towards achieving UHC. They are an incomplete epidemiological transition, a limited demographic transition, the evolving pressure of social determinants of health and rising concern about equity and access to

healthcare cutting across economic, caste, gender and rural urban barriers **(**Sen 2012**).**

Inequalities in accessing health on the basis of socio economic status, ethnicity persists within all countries irrespective of political regimes. Empirical evidence shows that there is no direct link to ill health from income inequality per se**(**Deaton 2003**)**.The WHO Commission on Social Determinants of Health (CSDH) has documented that health inequities are a result of 'toxic combination of poor social policies and programmes, unfair economic arrangements and bad politics'**(**CSDH 2008**).**Large inequity in health andaccess to health services continue to exist in India along with interstate variations, between rural and urban areas and within communities. Interstate variations in availability of health services, utilisation of curative and preventive services and affordability of health services is high with Kerala having best health service development and health outcomes even at low levels of percapita income. Interstate variations of utilisation of public services shows higher private sector utilisation for states like Punjab, Haryana and Maharashtra even with relatively better infrastructure for public services. However states like Himachal Pradesh, West Bengal -Rajasthan and other north-eastern states there is a higher dependence on public sector **(**Baru et al 2010**)**.

The next section of the paper looks into the challenges that define health system in India.India's healthcare challenges include low spending on health, unregulated private healthcare services, poor health indicators, out of the pocket expenditure on health by households, escalating costs of drugs and heavy burden of communicable and non-communicable diseases.

Challenges Towards Achieving Universal Health Coverage :

Low public spending on health

Over the years there has been growth in India's GDP and public revenue but the same could not be said with regard to health initiatives. Safe drinking water and sanitation is one of the most important concerns of any public health system as the consumption of polluted drinking water, open defecation and improper disposal of solid and liquid waste is the cause of several water-borne and vector borne diseases.Access to improved drinking water in rural areas is 89.3 percent

while improved sanitation facility in rural areas is just 36.7 percent **(**NFHS 4 2015-16**)**. Expenditure on preventive care has been much low when compared to the expenditure on curative care.According to National Health Accounts 2013-14, preventive care just gets 9.6 percent of the total money that flows in India's healthcare system. The expenditure on preventive care is estimated at Rs. 40,627 crores (9.6 percent of Current Health Expenditure (CHE) i.e. Rs 326 per capita) while the expenditure on curative care is estimated at Rs. 3, 38,477 crores (80.4 percent of CHE i.e. Rs 2,708 per capita). Public spending on health has been extremely low with only 29 percent of the total health expenditure, just 1 percent of GDP which has slightly improved from 2004-05 when the share of government spending was just 22 percent **(**NHA 2013-14**).** The world average of government health expenditure of the total health expenditure is 74.3 percent and even the average of Sub Saharan Africa is 35.1 percent. The most developed regions in the world accounts for above 50 percent of public health expenditure to total health expenditure North America (81.4 percent), Europe and Central Asia (77.7 percent) much higher than the Indian experience which is 25.4 percent (WDI 2016**)**.

Out of the pocket spending on health

The decreasing public spending on health has increasedreliance on private healthcare making India one of the most commercialized health care systems in the world. This makes healthcare unaffordable especially for those living below the poverty line because of the increasing cost of pathological tests, doctor's fees, medicines and hospital charges thereby increasing out of the pocket spending on healthcare by households. The cost of healthcare has become impoverishing than ever before as out of pocket expenditure on health is a major cause of hospital related indebtedness and specially for those living below the poverty line.In India out of the pocket health expenditure as percent of current health expenditure is 64.6 percent much higher than the world average and that of Sub Saharan Africa which stands at 18.6 percent and 36.7 percent respectively (WDI 2016**).**The link between out of the pocket expenditure and poverty is validated in the *National Health Policy 2015 Draft*, which claims that "increasing number of households facing catastrophic expenditures due to health costs have increased from 18 percent of households in 2011-12 as compared to 15 percent in 2004-05"**.**

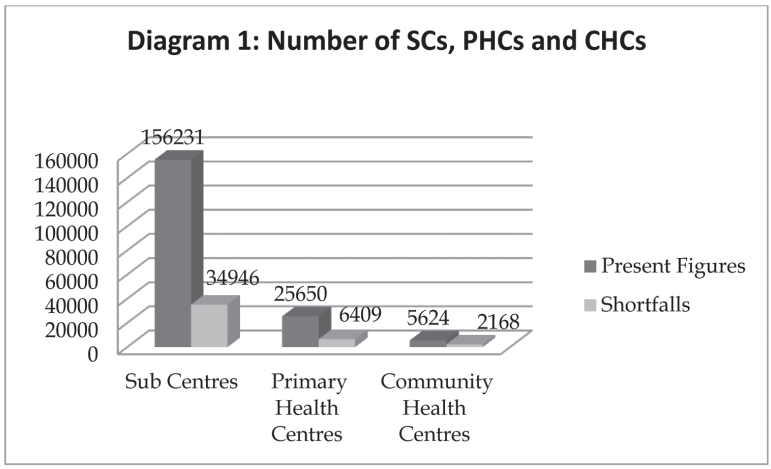
Medical expenditure which includes expenditure on medicines, fees paid for medical and para medical services, charges for diagnostic services, charges for operation and therapy has escalated in both private and public health care facilities. This can be substantiated by the fact that rural population spent on an average Rs.5636 for hospitalized treatment in public sector hospital and Rs.21726 in a private sector hospital. However in spite of the costs private institutions dominated rural (58 percent) and urban areas (68 percent).For non-hospitalized treatment of the total medical expenditure around 72 percent in rural and 68 percent in urban areas was made for purchasing 'medicine'**(**NSSO 2015a**).** For treating cancer average amount of Rs.24526 was spent in public hospital whereas more than three times i.e. Rs.78050 for the treatment in private hospital. An average of Rs. 5544 was spent per childbirth in rural area and Rs.11685 in urban area. However it may be noted that an average amount spent per childbirth as an in-patient of private hospital was more than nine times of that spent in public hospital for both rural and urban area **(**NSSO 2015b**).** Expenditure for delivery in public hospitals was Rs.1855 and Rs.17550 in private hospitals. The increased cost of delivery care is attributed to increased caesarean sections where the cost is six times higher than normal delivery **(**Jayakrishnan et al 2015**)**. While accessing inpatient care since there is high level of expenditure people resort to various sources to meet the expenditure. Health expenditure related borrowing is reportedly 18 percent in urban areas and 25 percent in rural areas. To meet the burden of health care 68 percent of rural households primarily depended on their household savings whereas 75 percent the urban household relied on 'income/savings' (NSSO 2015b)**.**

Inadequate public healthcare infrastructure

The Bhore Committee Report of 1946 recommended a three tier healthcare system with the primary health centres at the core of the health system to provide preventive and curative services (Report of the Health Survey and Development Committee 1946). This became the guiding principle on which the public healthcare system was developed in India to provide preventive and curative healthcare in rural and urban areas. The public healthcare system in rural India consists of the three tier system of Sub centres, Primary Health Centres,

Community Health Centres and First Referral Unit. There is a shortfall of 19 percent Sub Centres, 22 percent Primary Health Centres and 30 percent Community Health Centres **(**Diagram: 1**).** Primary Health Centre is the first contact point between the village community and the Medical Officer. There is also a severe dearth of doctors and para medical staff in the public healthcare system which is more acute in the primary care facilities in rural areas and urban slums. There are 7.8 percent PHCs without any doctor, 36.2 percent without a Lab Technician and 18.7 percent were without a pharmacist. There is also a staggering shortage of specialized medical care of surgeons, obstetricians and gynaecologists, physicians and paediatricians at the Community Health Centres. Although the specialist doctors at CHCs have increased from 3550 in 2005 to 4156 in 2017 there was a shortfall of 81.6 percent specialists at the CHCs as compared to the requirement for existing CHCs. This shortfall consists of 86.5 percent of Surgeons, 74.1 percent of obstetricians & gynaecologists, 84.6 percent of physicians and 81 percent of paediatricians were vacant **(**Rural healthcare system 2017).

In India, physicians per 1000 people stands at 0.8, nurses and mid wives at 2.1 and specialist surgeons at 6.8 much below the world average of 1.5, 3.4 and 30.5 respectively (WDI 2016). According to the National Health Profile, 2015, the number of Government Allopathic doctors and dental surgeons serving in India was 106415 and 5614 respectively. On an average, population served by Government Allopathic doctor was 11528 and by Government dental surgeons stand at 217448.Going by the same statistics, in India there were 20306 government hospitals (urban and rural) with 675779 beds. Average population served per hospital bed was 1833. According to NSS 71st Round this shortage has led to decline in use of public healthcare facilities.A steady decline in the use of government hospitals and a corresponding increase in the use of private sources is evident in the reports of the last three NSS rounds(52ndround – July 1995 to June 1996, 60th round – Jan to June 2004 and 71stround – Jan to June 2014). In urban India, 32 percent of the population in 2014 visited public hospitals for inpatient care as against 43.1 percent in 2004(NSSO 2015b).



Source: Rural Health Infrastructure 2017 available at https://nrhm-mis.nic.in/RURAL%20HEALTH%20STATISTICS/(A)RHS%20-%202017/Rural%20Health%20Infrastructure.pdf

Heavy burden of communicable and non-communicable diseases

Burden of diseases in India is at a critical juncture; still grappling with old diseases while new ones like HIV/AIDS have got added on to the disease profile. The success story so far has been the complete elimination of polio in India. Communicable diseases along with maternal and child health and nutrition contribute to 38 percentof the entire health burden (**NCD** Policy brief: India, 2011). Amongst the communicable disease, malaria occupies the top position although there has been a significant decline. However challenges persist because the disease is known for its re-emergence and outbreaks. Viral Encephalitis, Dengue and Chikungunya are rapidly increasing in the urban areas and there are no effective measures to address them. In tuberculosis the challenge is huge as on an average there are nearly 19 deaths per 100,000 population and the rising problems of multi-drug resistant tuberculosis. With regards to disease control in India huge importance is given in implementing vertical disease control programmes without any importance given to comprehensive environmental and socio-economic improvements. Moreover 75 percent of communicable diseases are not part of the current national programmes. The *National Health Policy 2015 Draft*, clearly states that 'where there are sub-critical human resource deployment, weak logistics and inadequate infrastructure, all national health programmes do badly'.

All around the globe as well as in India non-communicable disease (NCD) is gradually increasing owing to rapid urbanization accompanied by lifestyle changesand with low level of population awareness resultsin late detection and increased chances of morbidity and mortality (Reubiet al. 2016). Non-communicablediseases account for 62 percent of the total disease burden in India which mainly include cardiovascular diseases, injury, mental health, cancer, respiratory diseases and diabetes. Along with human resource and finance to deal with NCDs in India the paucity of good quality data is affecting NCD planning process (NCD Policy brief: India, 2011).

Achieving UHC seems a difficult task given the challenges that the health system face in India. The next section will look into the concept of health governance which has been adopted by several countries to provide 'Good Health at Low Cost'.

Health Governance : Way Forward For Achieving Universal Health Coverage In India : The realization of UHC requires policy interventions that can increase equitable access to healthcareutilisation. To be able to fulfil this goal requires not only infrastructure, medicines and medical products, health information, human resources in health and health financing but above all governance in health which is relevant to these components in order to coordinate the interactions between them. WHO states that strengthening health governance can help countries move towards UHC as a goal. WHO defines governance in health sector as 'wide range of steering and rule-making related functions carried out by governments/ decisions makers as they seek to achieve national health policy objectives that are conducive to universal health coverage' WHO further describes that beyond the formal health system governance means collaborating with other sectorsincluding the private sector and civil society, to promote and maintain population health in a participatory and inclusive manner **(**WHOb**).**

In developing the health governance framework several key issues needs to be addressed. This includes the role of the state vs. the market which is an important aspect because for low and middle income countries the most crucial task for health policy makers is agreeing to an appropriate sense of balance between governments direct intervention in health affairs on one hand and the application of free market principles on other. Secondly, role of the health ministries vs. other

state ministries is another key issue because health system governance requires a holistic approach to health like providing clean water, sanitation food and nutrition and not confines itself only to the provision of health services. Thirdly, several actors in governance like the communities, civil society and the private providers influence health system governance within countries. Therefore good governance in health is determined by the extent to which the state executives value the experience of these stake holders. Fourthly health system governance should be resilient enough and respond to the changing demographic and epidemiologic profiles of the population i.e. they should be able to ascertain static vs. dynamic health system. Lastly, it is important to delineate the boundaries between health reforms vs. human rights based approach to health. Following the World Health Organization's (WHO) domains of stewardship; Pan American Health Organization's (PAHO) essential public health functions; World Bank's six basic aspects of governance; and United Nations Development Programme (UNDP) principles of good governance on health ten principles on health governance have been identified which are : strategic vision, participation and consensus orientation, rule of law, transparency, responsiveness, equity and inclusiveness, effectiveness and efficiency, accountability, intelligence and information, and ethics. (Siddiqi S et al.2008**).**

A comparative study across few countries highlighted the importance of good governance in health in countries can promote good health and also at low cost. The study dismissed the idea that economic growth is a sufficient driver of development which promotes good health of the population. The study revealed that many low income countries had achieved vast improvements in health similar to those seen in developed countries with only modest growth in income. The social and political factors which contribute to good health include political and historical commitment to health as a social goal, strong societal value of equity, political participation and community involvement in health, high level investment in primary health care and other community based services, widespread education for women and intersect oral linkages for health (Balabanov et al. 2011**).**

In India an important challenge is low government spending on health which aggravates the problem of out of the pocket expenditure by households which leads to low financial protection and access to care (Quintussi et al 2015). The

problem worsens for poor people in the poorer states of India who pay significantly more to avail hospitalization in public health centres than those in developed states (Dash and Mohanty 2019). The most pertinent question is what the government is spending and what has been the impact of the spending and what are the future prospects. A study on this question "What a country should spend on healthcare" (Saved off, 2007) tells that increasing government spending on health should be based on the analysis what the government wants to achieve with its spending and how much will it cost to achieve the stated goals. Given India's federal structure and the division on the subject of health it is an important factor to consider. The trend shows that primary health care is largely funded by the centre whereas the states finance secondary and tertiary care except for national institutions. The political economy of government financing on health needs planning which has to be matched by centre and states (Berman and Ahuja 2008). This is one of the ten principles on governance on health i.e. strategic vision which is required for good health.

In several developing countries like India health is not delivered to all segments of the people because of the shortage of healthcare infrastructure and health workforce. This can be tackled by training health workers from the community with focus on public health and healthcare and subsequently several communicable and non-communicable diseases can also be prevented. Community Health Workers play a pivotal role in applying their deep understanding of local population needs on certain aspects of local health delivery **(**Lehman and Sanders 2007**).** Improving community based services is an important component of good governance which has also been a reason for developing good health in several countries. Training village health communicators and public health nurses and introducing new types of public health workers has also been emphasized by Thailand for maintaining primary care infrastructure supported by community efforts.In Thailand community health workers and auxiliary staff visiting communities have been able to communicate the idea of contraception which has subsequently reduced fertility **(**Balabanov et al. 2011**)**. Bangladesh Rural Advancement Committee (BRAC) is driven by the principle of community participation involves large scale deployment of trained Community Health Workers (CHWs) There are two types community health workers one with minimum of 10 years of training known as Swasthya Kormi (SK) and

community volunteers called Shastya Sebika (SS). The SKs provide antenatal and postnatal care; reproductive health services, especially adolescent health; and deliver health and nutrition education while SSs educate communities on preventive measures provide primary care and subsequently link them to referral services to higher tiers of healthcare if needed. The role of the CHWs has thereby been expanded shifting from vertical to integrated models of care and has enabled health workers to implement vertical programmes in a flexible manner which has been more appropriate for dealing with the local disease burden. The neighbouring countries of Pakistan and Nepal have also initiated community engagement and participation to improve healthcare in the form of Lady Health Workers (LHWs) and Female Community Health Volunteers (FCHVs) to provide family planning and primary healthcare services respectively. In Sri Lanka the Preventive Health Care Program comprises of medical officers of health units and public health midwives (PHM) nurses and other support staff who have been critical in reducing maternal mortality in Srilanka **(**Bhutta et al. 2018**).**

Community Health Workers can help not only to provide maternal health care and combat communicable disease burden by providing primary health care but can also be empowered to deal with the problem of non-communicable diseases. The guideline on NCD in India proposes community awareness and advises governments to disseminate NCD related communication messages at camps and local and public gatherings through community health workers and performing community based screening (Mondal and Van Belle 2018). For example in Kenya CHWs are being used to increase hypertension awareness, screening rates and provide knowledge on treatments. Through mobile phones and household visits CHW play an important role in ensuring that majority of patients with NCD receive medical follow up that they require(Jarvis et al 2016).

In the last decade India has initiated certain aspects of health governance for making health services available to the people. The flagship health programme the National Rural Health Mission (NRHM) launched in 2005; trained Community Health Workers across India and named them Accredited Social Health Activists (ASHA). ASHA has been successful in catering to a large section of the rural population for generating awareness about public health issues and maternal and child health. In 2007 Community Based Monitoring (CBM) was introduced as a part of NRHM to increase health sectors accountability through participation

of the community. Apart from providing health services by community health workers CBM is one of its kid initiatives where the state of public health services are tracked, recorded and reported as experienced by the people themselves. It also creates awareness what people are entitle to in order to monitor whether it is delivered (Shukla et al. 2011).The health system of Tamil Nadu has garnered praise because of its focus on health governance and has been able to create a health system that is able to deliver effective and equitable care. Tamil Nadu's achievement can be attributed to a mix of strong political commitment to health and a paradigmatic shift in public health policy which emphasised on intersectoral policies like improving literacy, increase public awareness on family planning and good nutrition. In Tamil Nadu village health nurses which are based at health subcentres provide home visits and inform women about antenatal and post natal care and vaccinations thereby enhancing maternal healthcare (Balabanov et al. 2011).In another case trained CHWs employed by nongovernmental organisation Society for Education Action and Research in Community Health (SEARCH) in tribal regions of central India for the diagnosis and treatment of childhood pneumonia and common new-born illnesses have proved to be an effective measure and therefore later incorporated in National Rural Health Mission programme in 2011 **(**Bhutta et al. 2018**).** In Keralaa population based NCD prevalence study reveals that CHWs can play a powerful role in collecting data related to NCD prevalence and other vital information (Menon et al 2014).

Conclusion : The policy guidelines laid down in health documents from time to time have addressed the challenges that India's health system faces yet it lacks significantly in terms of implementation. Neighbouring countries like Bangladesh and Srilanka with similar economies have been able to perform much better than India in terms of several health indicators. These countries have shown that it is possible to achieve good health for the population with lower spending on healthcare but effective spending. Focusing on preventive measures rather on curative measures is an optimal solution to ease down the pressure building on the current healthcare system. Preventive measures like proper sanitation, increasing awareness through health education, vaccination help in curbing the disease burden. The outreach of the Swachh Bharat Mission needs to be maximised. Community participation for delivering health services has to be

supported by community based monitoring as an effective strategy throughout the country. Availability of food and safe drinking water are two areas where community monitoring can help. Ultimately health governance is about optimum utilisation of available resources in health, a mechanism for community empowerment thereby giving the people right to good health.

References :

Balabanova, D. M McKee and A, Mills.ed. 2011. '*Good Health at Low Cost" 25 Years On – What Makes a Successful Health System?'* athttp://ghlc.lshtm.ac.uk/files/2011/10/GHLC-book.pdf accessed on 18.08.19

Baru, R. et al 2010. 'Inequities in access to Health Services in India: Caste, Class and Region' ,*Economic and Political Weekly,* Volume XLV, No.38: 49-58.

Berman, P. and Rajeev Ahuja 2008 'Government spending in India', *Economic and Political Weekly* Vol. 43 No. 26-27: 209-216

Bhutta, Zulfiqar.et al. 2018 'Rethinking Community based strategies to tackle health inequities in South Asia' at https://www.ncbi.nlm.nih.gov/pubmed/30498009accessed on 21.4.2020

CSDH 2008.Closing the gap in a generation: Health equity through action on the social determinants of health.Finalreport of the Commission on social determinants of health.At https://apps.who.int/iris/bitstream/handle/10665/43943/9789241563703_eng.pdf;jsessionid=B8F2C769184302643952 BD0895820C35? sequence =1accessed on 27.5.20

Dash, A. and Sanjay K.Mohanty. 2019. 'Do poor people in poorer states pay more for healthcare in India' *BMC Public Health* available at https://doi.org/10.1186/s12889-019-7342-8 accessed on 27.5.20

Dasgupta, Monica. 2005. 'Public Health in India: Dangerous Neglect', *Economic and Political Weekly,* Volume 40, No.49: 5159-5165.

Deaton, Angus. 2003. 'Health, Inequality and Economic Development' *Journal of Economic Literature* Volume XLI: 113-158.

Drèze, Jean. and Amartya Sen. 2002.*India: Development and Participation*, Oxford:Oxford University Press:200-02.

HLEG 2011.High Level Expert Group Report on Universal Health Coverage for India, PlanningCommission of India, New Delhi, at http://www.planningcommission.nic.in/reports/genrep/rep_uhc2111.pdf accessed on 18.6. 19

Jarvis, D Jordan and IshuKataria and Mellany Murgor and Lilian Mbauz. 2016. 'Community Health Workers:An Underappreciated Asset to Tackle NCD'*Global Heart* at http://dx.doi.org/10.1016/j.gheart.2016.10.004 accessed on 26.5.20

Jayakrishnan, T. et al. 2015. 'Increasing Out- Of - Pocket Health Care Expenditure in India- Due to Supply or Demand' at http://www.omicsonline.org/open-access/increasing-outofpocket-health-care-expenditure-in-indiadue-to-supply-or-demand-pe-1000105.php?aid=68476 accessed on 15.04.2020

Lehman, U and Sanders D. 2007. 'Community Health Workers: What Do We Know About Them? WHO at: http://www.who.int/hrh/documents/community_health_workers.pdf. Accessed on 26.5.20

Mehta, PratapBhanu. 2003.*The Burden of Democracy*, New Delhi: Penguin

Menon J.J Joseph, A Thachil, TVAttacheril and A Banerjee. 2014.'Surveillanceof noncommunicable diseases by community health workers in Kerala: the Epidemiology of Noncommunicable Diseases in Rural Areas (ENDIRA) study' *Global Heart* at http://doi.org/10.1016/j.gheart.2014.07.003 accessed on 27.5.20

Mondal and Van Belle. 2018. India's NCD strategy in the SDG era: are there early signs of a paradigm shift?*Globalization and Health,* at https://doi.org/10.1186/s12992-018-0357-6 accessed on 26.5.20

NCD Policy brief: India 2011. athttp://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1296680097256/7707437-1296680114157/NCD_IN_Policy_Feb_2011.pdf accessed on 26.5.20

National Health Policy. 2015. Draft 2014. Ministry of Health and Family Welfare, Government of India at https://www.nhp.gov.in/sites/default/files/pdf/draft_ national_ health_ policy_2015.pdf accessed on 3.8.16 accessed on 17.4.2020

National Health Profile. 2015. Ministry of Health and Family Welfare, Government of India at http://cbhidghs.nic.in/index2.asp?slid=1311&sublinkid=1167 accessed on 24.4.16

National Health Policy 2017 Ministry of Health and Family Welfare, Government of India at https://www.nhp.gov.in/nhpfiles/national_health_policy_2017.pdf accessed on 5.4.2020

NFHS 4. 2015-16. *National Family Health SurveyIndia Fact sheet* Ministry of Health and Family Welfare, Government of India at http://rchiips.org/NFHS/pdf/NFHS4/India.pdf accessed on 22.3.17

NHA 2013-14.*National Health Accounts 2013-14,* Ministry of Health and Family Welfare, Government of India at http://nhsrcindia.org/sites/default/files NATIONAL%20 HEALTH%20ACCOUNTS-%20Estimates%20for%20India-2013-14%282%29_0.pdfaccessed on 18.4.2020

NSSO 2015a.*Health in India NSS 71st Round January –June 2014*, Report no.574(71/25.0), Ministry of Statistics and Programme Implementation, Government of India at http://mospi.nic.in/Mospi_New/upload/nss_rep574.pdf accessed on 12.8.16

NSSO 2015b.*Key indicators of social consumption in India Health NSS 71st Round January –June 2014*,NSS KI(71/25.0), Ministry of Statistics and Programme Implementation, Government

of India at http://mospi.nic.in/mospi_new/upload/nss_71st_ki_health_30june15.pdf accessed on 30.7.16

Quintussi, M. and Van de Poel and E. Panda, P. & Rutten, F. 2015.'Economic consequences of ill-health for households in northern rural India'.*BMC Health Services Research*, at doi:10.1186/s12913-015-0833-0 accessed on 27.5.20

Report of the Health Survey and Development Committee 1946.Manager of Publications: DelhiVolume 2: 17-18, 37-38

Reubi, D.C Herrick and T Brown. 2016.'The politics of non-communicable diseases in the global south' *Health Place,*at https://doi.org/10.1016/j.healthplace.2015.09.001 accessed on 26.5.20

Rural Health care System in India 2017. at https://nrhm-mis.nic.in/RURAL%20HEALTH%20STATISTICS/(A)RHS%20-%202017/Rural%20Health%20Care%20System%20in%20India.pdf accessed on 8.04.2020

Savedoff, W. (2007): 'What Should a Country Spend on Healthcare?',*Health Affairs*, at https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.26.4.962accessed on 27.5.20

Sen, G. 2012. 'Universal Health Coverage in India': Along and Winding Road',*Economic and Political Weekly* Vol. XLVII No. 8: 45-52

Siddiqi S, et al.2008.'Framework for assessing governance of the health system in developing countries: Gateway to good governance' *Health Policy*, at doi:10.1016/j.healthpol.2008.08.005 accessed on 15.04.2020

Shukla, A. Kerry Scott and DhananjayKakde, 2011. 'Community Monitoring of Rural Health Services in Maharashtra', *Economic and Political Weekly* Vol. XLVI No. 30:78-85

Tuohy, C. H., and Sherry Glied. 2011. 'The Political Economy of Health Care' inSherry Glied and Peter C. Smithed. The Oxford Handbook of Health Economics,Oxford: Oxford University Press

WDI. 2016. World Development Indicators: Health Systems, World Bank at http://wdi.worldbank.org/table/2.12 accessed on 18.4.2020

WHOa: World Health Organization Constitution at http://www.who.int/about/mission/en/ visited on 20.8.17

WHOb: World Health Organization: Health Systems at https://www.who.int/healthsystems/topics/stewardship/en/ accessed on 15.4.2020

Bio-Profile of the Author:
Assistant Professor, Department of Political Science, Hingalganj Mahavidyalay, North 24 Parganas
Email address :chakrabartysanchita@gmail.com

Role of Commercial Banks Awarness in Financial Services - A Study With Special Reference to Mysore District

Manoj .S[1]
M. Prabhu[2]

Abstract : *Financial awareness, on the one hand, is a procedure aiming at providing banking financial services like savings bank account, insurance products and credit facility to weaker sections of the society While on the further, it refers to the objective of ensuring financial services (insurance, banking, and services of capital market) and timely and enough credit to every division of the society as well as of the economy. Access to financial services has been familiar as a significant aspect of growth and more importance is given to extending financial services to below-income households as the low knowledge and education required to make out awareness financial services are accessible to those sectors. Lack of financial access limits the different of services and credit for enterprises and household. Even if there is some proof that access is developing but still there are several factors which have affected the access to Banking financial services.*

Keywords: - deposits; service; insurance; awareness; loans.

Introduction : In India Banking is the Heart of the economy whose strength signifies the prosperity and health of the country. India had its own banking system in early period, even it was not similar to banking in modern times. Under RBI, commercial banks have a wide network to operate in the country Straight from the nationalization of banks of 1969 to the recent application of BASEL III, starting a few banks of an enormous figure of foreign and private sector banks,

from its monotonous and laid back system to the modern advance systems with internet banking, mobile banking, etc. In India banking industry has travelled an extended path to assume its recent status and is constantly undergoing continuously transformation. Indian Banking financial institutions influence development of economic and growth of the country both in terms of Quantity and quality, there by adopting different strategies for developing economic growth. As environmental issues gain greater concentration, pressure is being placed on all industries, including financial institutions to implement Green Initiatives.

Banking financial sector plays an important role in promoting sustainable and socially responsible investments as it increases the cost and lowers loss percentage as upper quality loan portfolio results in higher earnings.therefore, heartening responsible for funds and practical lending should be one of the responsibilities of the banking sector. Banking initiatives taken by related banks or a theory of Green banking namely using all the banks property and resoruces with responsibility and concern, avoiding waste and giving precedence to choices that take sustainability into account And higher expectations by the public on Bank's service environmental responsibilities and emerging regulatory and compliance necessities. This comes in many forms using internet banking instead of visiting banking, Bill payments through online instead of mailing them. It's a sunshade expression referring to practices and guiding principle that makes banks sustainable in environment, economic, and social various dimensions. Which targets to make services of financial banking processes and the use of information modern facilities of technology and physical infrastructure as efficient and effective as feasible? The Banking services skill also assumes the action of using recent superior computer algorithms in raveling the patterns of behaviour of customers by shifting through customer information which is psycho-graphic, demographic, operation data. This movement is also known as Data monitoring which helps bank to obtain their business objectives by solving different marketing troubles such as customer scoring, customer segmentation, target marketing, cross cell, market based analysis, customer maintenance by modelling .E- banking refers to the use of recent technology which allows customer to access e-banking services electronically whether it is to fund to transfer,bill payments,view account or to get information and technology and services. Internet banking or web-based banking is network of banks and financial institutes as well other sealers. It will

provide electronic payments and services to customers. It implies the most realistic use of information modern technology as medium of universal communication with banks.

Review of Literature:

Bauerr, Keelson's (2002) has mentioned consumers and banker are each fascinated among the possible for internet banking industry. During article, the conclusion shows that banks additionally are increasing their connections to deal with what they understand on the increase grasp for online services.

Kasthuri, Rao (2002)**,** "Out the half dozen distress bank zone ,has documented by Verma Committee, the banks are nominative are SBI, Vijay Bank, Indian Overseas Bank and Union Bank of India have gone public sector and currently SBI still has an adverse coverage quantitative relation. The outstanding three banks are in relaxed situation".

Sanyoudha and K. Shiva Kumar (2002), studied on customs embrace "the ratings given by the customer respondents during a sample stifling for variety of range of services are customer responses towards passbook facilities, cheque book, other financial services such as, DD facility, depository services, etc. and also describes customers are much pleased with the services that are provided by the private sector banks when compared through co-operative banks".

Yash Paul Pahuja (2003) this text reviewed on SB account is one amongst the quick growing clusters of actors in the Indian Banking commerce with around thirteen thousand branches (including its seven associate banks) and fifty four foreign offices in 42 countries? This brushwood handles 27million transactions a day. The cost of funds is lowest for SBI at 7.6 percent as compare to others".

Massad, Nelson (2003) has contributed at a hypothetical level by given that deeper accepting of the transactions between customers and service providers.

MaricioSanchez Featerman, (2003) measured that noticeable risk reserved consumer taking up discernment furthermore intention of the usability, helpfulness of on-line payment banking system

V.Raghunathan (2003) "congregation in the banking sector assumes improved consequence since banks today no longer spank about merely through other banks within the fact thrash about with all told special sector".

DonaD Siregar (2004) Has investigate that the relative significance of diverse factors influence bank decision on going public over consolidating with other banking organisations.Many banks experienced consolidation through merger acquisitions (M&A)

Bayles, MichelleEsther (2004) have believed that investigating factor contribute their decision to bank online, commonness of banking activities.

Shekhar Chandra (2004) has thoroughbred that "The second and also the most significant measure of the banking sector reforms was scale back of the non-performing assets (NPAs).throughout info, the total effort to reform All reform the banking sector would dip if the banks weren't able to contain and scale back their NPAs. It would be not possible for a bank with high non performing asset to exist in additionally animated or prepared for action. 'What Are these NPAs? Assets that do not surrender any return or come back

Yakub Shumaila, Yousafzai (2005) has explicit that expand a theoretical model therefore on variety however intentions towards the use of online net banking are formed and on the road to what point they are associated with the particular use of online internet banking.

Sakkthivel M(2006) associate wide-ranging primary analysis in republic of India so as to acknowledge the temperament of net users to bank for totally different completely different services over net banking and provides a particular focus to acknowledge the impact of influencing Indian online users in intense different net services.

Vamalwa, Tom (2006) thought that whether internet banking strategies are associated with the bank's core business based or not recognized.

Manoharan N. (2007) during this article has explained the e-payment system in Republic of India and its performance impact on Indian banking sector. Here author has defines competition in industry had forced the banks to alter the means they operate their business dealing. So, net banking has created it potential to seek out alternate banking practices. This paper, author has separated payment system in to 3 sorts in Republic of India, that's payment system, retail electronic system and retail payment system,

Suresh.P(2008) highlighted internet-banking facility had formed surprising opportunities for the banks to control monetary merchandise, service delivery,

marking, profits, during the article analyzed that internet banking are going to be associate innovation if it preserved each business model and technology information ,and troublesome if it destroys each the model and information

Guillean and Tschoegi (2009), long-established banks accepted the change in their performance in order to be more receptive to the international market stipulate for new monetary product in new competitive market.

Singh shamsher (2011) mentioned the adoption and effect of internet banking facilities, and ATM card services on customer satisfaction and retention by top Indian banks.

Srivastav, P.K. (2013) during this article they observe typical banking is associate art however e-banking is a lot of of science than art because it is a lot of information primarily based and scientific in mistreatment electronic devices.

Kaura and Vilakshan (2014) findings are indicating that service quality shows the proper impact on the level of customer satisfaction and customer loyalty.

Malik, S. (2014) has highlighted that monetary innovation is response to survival of banks in modern banking environment. The significance of financial innovation is extensively familiar. Innovation in product improvement is one of the forms of innovation that has been used by banks.

Singh (2015) explained deliberately on development of quality service will depend on customer connections, interaction. Banks have participated with the study contain ICICI, SBI, HDFC Bank and PNB.

Problem of the statement : All Commercial banks offer their customers the competence of more than certain financial Banking service. From the side of commercial Banks e-Banking and financial service we can hand on out banking activities from the console of our office and home with our mouse itself. By means of our e- Banking classification and undisclosed word, we are able to overlook our all Banks financial records perform via transactions online whole phases without any difficulty. We can transfer funds online to every bank account maintained by way of any bank of the nation. We can also access all our state Bank accounts from all around the world full-time.

Aim of the study :

I. To identify phases of awareness of account holders towards financial banking services to evaluate intensity of awareness of customers in all the commercial banks in mysore district.

II. To know the major customers problem at the same time as using e-banking services.

III. To scrutinize on the factors that affect the customer's opinion an area commercial banking services.

Scope of the study :

I. Mentioned to study area of the customers was taken to consideration.

II. This area of study was enclosed various commercial Banking services.

III. The developing awareness of financial banking services has enabled the banks to suggest an instant banking transactions and incorporate related banking users correlated functions.

IV. This is a primary source data directly collected from the customers of commercial Banks of Mysore district.

Research methodology :

Data collection: I. Primary data **II.**secondary data

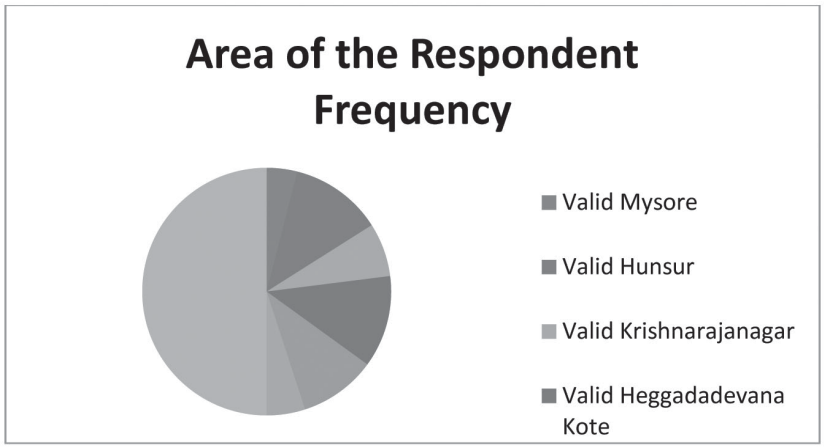
I. Primary data: This Questionnaire is used to get detailed from primary data onto relevant study area respondents. The questionnaire was prepared for written and enclosed questions connecting to various dimensions of banking financial service such as level of handling and usages, damages accruing to the users of banking customers in online e-banking services, troubles encountered. An exertion was also complete to bring out reasons for this non-usage developments history. Factors influencing the live out of awareness of financial banking services the questions incorporated into the questionnaire were open-ended, and presenting different various choices.

II. Secondary data: Awareness of commercial banking Financial Banking services articles are taken from journals, RBI, government issues, magazines,

Data Analysis and Interpretation

Table no -1
Area of the Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mysore	12	8.0	8.0	8.0
	Hunsur	36	24.0	24.0	32.0
	Krishnarajanagar	21	14.0	14.0	46.0
	Heggadadevana Kote	36	24.0	24.0	70.0
	Nanjanagudu	30	20.0	20.0	90.0
	T Narasipura	15	10.0	10.0	100.0
	Total	150	100.0	100.0	



Source: - Primary data
Interpretation:- Above table area of respondent indicating that area of heggadadevana kote , hunsur showing majority frequency are both same that is 36 out of 150 respondents and 30 respondents are from nanjanagudu that is 20 percent of total respondents, 21 respondents are from k r Nagar, 14 percent ,15 respondents are from T Narsupura, 10 percent , rest of the other 12 members from Mysore that is 8percent of total respondents.

Table no-2

Gender of the Respondent

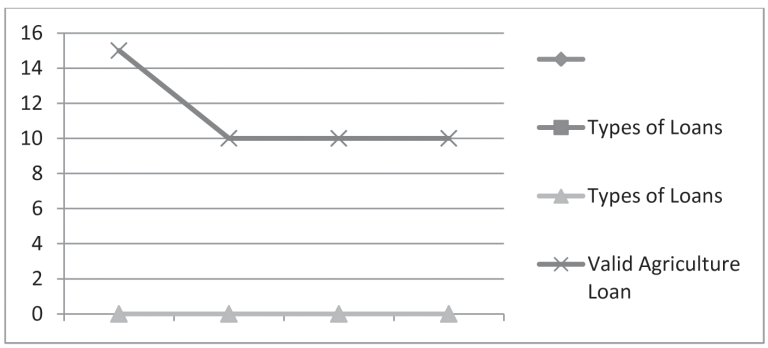
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	84	56.0	56.0	56.0
	Female	66	44.0	44.0	100.0
	Total	150	100.0	100.0	

Source: - Primary data

Interpretation:- From the above mentioned table of gender respondents majority of are male that is 84 frequency 56 percent out of total 150 respondents and rest of the other 66 are Female that is 44 percent out of 150 respondents.

Table no-3
Age of the Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 30 years	45	30.0	30.0	30.0
	30 to 50 years	72	48.0	48.0	78.0
	50 and above years	33	22.0	22.0	100.0
	Total	150	100.0	100.0	



Source: - Primary data

Interpretation:- above mentioned table of age respondents majority of respondents are from the age group between 30 to 50 year of age group that is 72 (48 percent) out of total 150 respondents,45 (30 percent). Of the respondents are from the age group between 30-50 years and rest of the others are from the age group between 50 and above that is 33 (22 percent).

Table no-4
Marital Status of the Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	48	32.0	32.0	32.0
	Unmarried	102	68.0	68.0	100.0
	Total	150	100.0	100.0	

Source: - Primary data

Interpretation: - From the above table it is clear that 102 respondents are unmarried that is 68 percent. And rest of the other 48 are married (32 percent) out of 150 respondents

Table no-5
Religion of the Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hindu	24	16.0	16.0	16.0
	Muslim	9	6.0	6.0	22.0
	Christian and others	117	78.0	78.0	100.0
	Total	150	100.0	100.0	

Source: - Primary data

Interpretation: - From the above religion of respondents table majority of respondents are from Christian and other that is 117 (78 percent) out of total 150 respondents, 24 (16 percent). Of the respondents are from the Hindu religion and rest of the others are from Muslim religion that is 9 (6 percent).

Table no-6

Caste of the Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	General	33	22.0	22.0	22.0
	OBC	42	28.0	28.0	50.0
	SC/ST	75	50.0	50.0	100.0
	Total	150	100.0	100.0	

Source: - Primary data

Interpretation: - From the about table of caste responds Sc/St are memory category that is 75 (50 percent) out of 150, 42 respondents are from OBC and rest of the other 33 belongs to General category (22 percent)

Table no-7
Educational Qualification of the Respondent

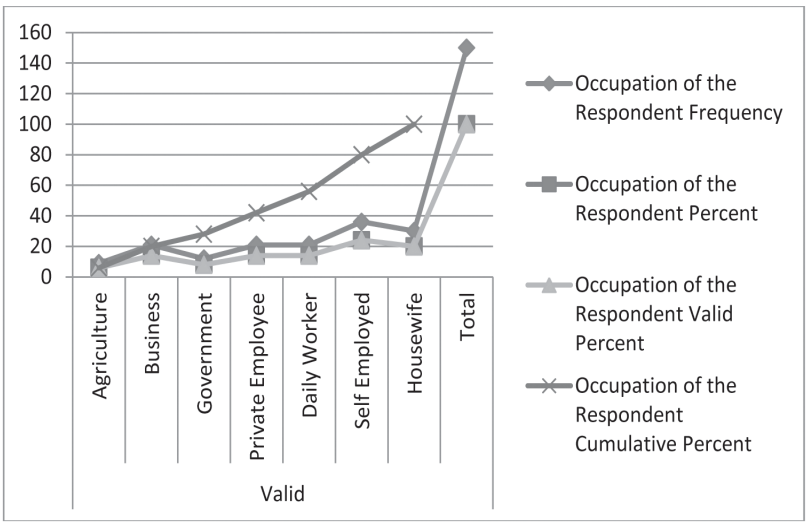
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary	21	14.0	14.0	14.0
	Secondary	36	24.0	24.0	38.0
	Higher Secondary	36	24.0	24.0	62.0
	Degree	18	12.0	12.0	74.0
	Others	39	26.0	26.0	100.0
	Total	150	100.0	100.0	

Source: - Primary data

Interpretation:- From the above table of Educational qualification of 150 respondents 21have completed Primary level of education, 72 have did up to secondary and Higher secondary level of education, 18 respondents have completed their degree and rest of the other 39 completed other forms of education

Table no-8
Occupation of the Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture	9	6.0	6.0	6.0
	Business	21	14.0	14.0	20.0
	Government	12	8.0	8.0	28.0
	Private Employee	21	14.0	14.0	42.0
	Daily Worker	21	14.0	14.0	56.0
	Self Employed	36	24.0	24.0	80.0
	Housewife	30	20.0	20.0	100.0
	Total	150	100.0	100.0	



Source: - Primary data

Interpretation:- From the above table of Occupation of respondents 9 are from Agriculture, 21 are from Business class, 12 are from government sector, 21 are from private sector, 21,36,30 respondents are Daily worked, Self employed and Housewife's respectively

Table no-9
Area of the Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rural	57	38.0	38.0	38.0
	Urban	93	62.0	62.0	100.0
	Total	150	100.0	100.0	

Source: - Primary data

Interpretation: - From the above table majority of the respondents are from urban areas that is 93(62percent) and rest of the respondents are from Rural area that is 57(38percent) out of 150 respondents.

Table no-10
Category of the Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	123	82.0	82.0	82.0
	Private	27	18.0	18.0	100.0
	Total	150	100.0	100.0	

Source: - Primary data

Interpretation:- From the above table majority of the respondents are from Public sector that is 123(82 percent) and rest of the respondents are from Private sector that is 27(18 percent) out of 150 respondents

Table no-11
Types of Deposits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Saving Deposits	51	34.0	34.0	34.0
	Fixed Deposits	27	18.0	18.0	52.0
	Recurring Deposits	36	24.0	24.0	76.0
	Others	36	24.0	24.0	100.0
	Total	150	100.0	100.0	

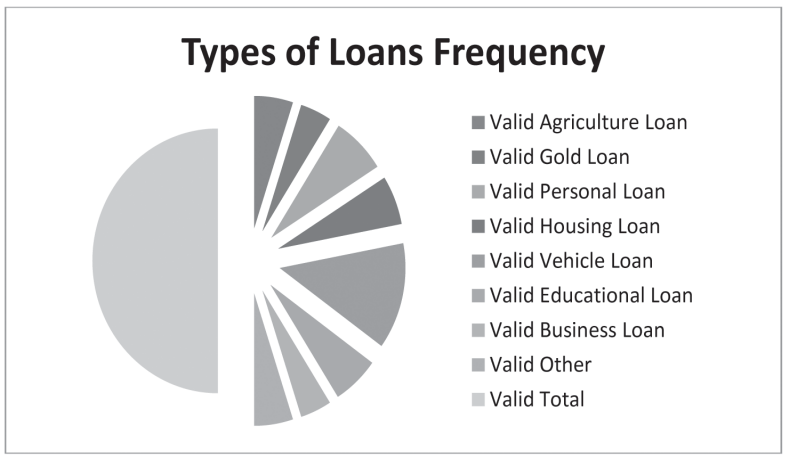
Source: - Primary data

Interpretation: - From the above table of Deposit category Saving Deposit Holders are 51, FD holders are 27, RD holders are 36, again 36 are holding other kind of deposits out of 150 respondent.

Table no-12

Types of Loans

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture Loan	15	10.0	10.0	10.0
	Gold Loan	12	8.0	8.0	18.0
	Personal Loan	21	14.0	14.0	32.0
	Housing Loan	18	12.0	12.0	44.0
	Vehicle Loan	39	26.0	26.0	70.0
	Educational Loan	18	12.0	12.0	82.0
	Business Loan	12	8.0	8.0	90.0
	Other	15	10.0	10.0	100.0
	Total	150	100.0	100.0	

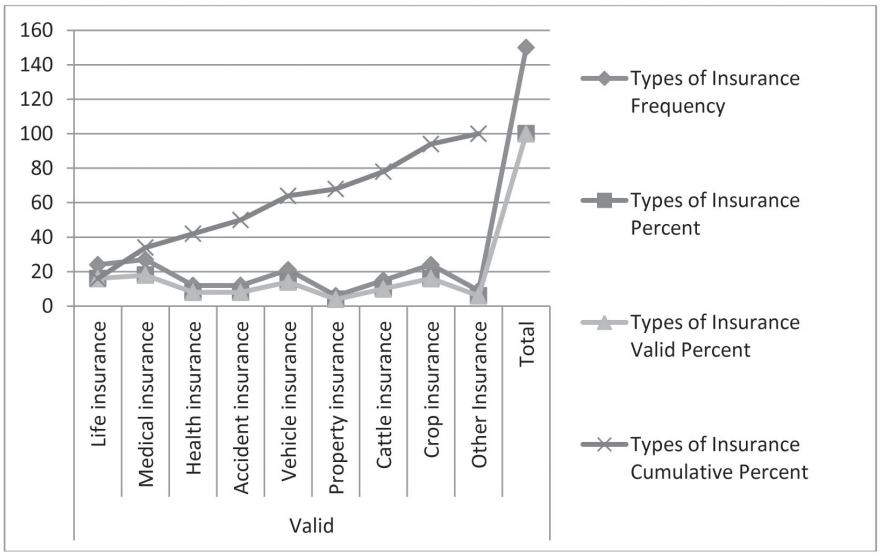


Source: - Primary data

Interpretation:- Considering the above table of Types of loan taken by the respondents, 15 are taken Agriculture Loan, 12 are Gold Loan, 21 are Personal loan, 18 are Housing loan, 39 respondents taken Vehicle Loan, 18,12,15 have taken Educational loan, Business Loan and other kind of loans respectively out of 150 respondents

Table no-13
Types of Insurance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Life insurance	24	16.0	16.0	16.0
	Medical insurance	27	18.0	18.0	34.0
	Health insurance	12	8.0	8.0	42.0
	Accident insurance	12	8.0	8.0	50.0
	Vehicle insurance	21	14.0	14.0	64.0
	Property insurance	6	4.0	4.0	68.0
	Cattle insurance	15	10.0	10.0	78.0
	Crop insurance	24	16.0	16.0	94.0
	Other Insurance	9	6.0	6.0	100.0
	Total	150	100.0	100.0	



Source: - Primary data

Interpretation: - From the above table of insurance made by the respondents out of 150, 24 have taken life insurance, 27 have opted Medical insurance, 24 respondents opted Health and Accident insurance, 21 made vehicle insurance, 6 did property insurance, 15 have taken sheep insurance, 24 did crop insurance and 9 have taken other forms of insurance schemes

Table no-14

Descriptive

		N	Mean	Std. Deviation	Std. Error
Opening Bank account	Rural	57	3.5789	1.19444	.15821
	Urban	93	3.6774	1.38440	.14356
	Total	150	3.6400	1.31220	.10714
Taking Loans.	Rural	57	3.6842	1.50188	.19893
	Urban	93	3.9355	1.24940	.12956
	Total	150	3.8400	1.35151	.11035
Micro-insurance	Rural	57	4.0526	1.10875	.14686
	Urban	93	3.6129	1.43733	.14904
	Total	150	3.7800	1.33547	.10904
Money Transfer facilities	Rural	57	3.7368	1.30283	.17256
	Urban	93	3.7097	1.35599	.14061
	Total	150	3.7200	1.33170	.10873
ATM / Debit cards	Rural	57	4.0000	1.13389	.15019
	Urban	93	3.8065	1.33724	.13867
	Total	150	3.8800	1.26342	.10316
Mobile banking / internet banking	Rural	57	3.8421	1.19208	.15789
	Urban	93	3.9032	1.33567	.13850
	Total	150	3.8800	1.27926	.10445
Credit cards	Rural	57	3.8421	1.43663	.19029
	Urban	93	4.1935	1.03481	.10730
	Total	150	4.0600	1.21086	.09887

Source: - Primary data

Interpretation:- From the above Descriptive table no 14, It can be clear that opening of bank account in Urban its dominates with the mean value of 3.67, and standard deviation of 1.38 in respect of rural opening bank account,where the standard deviation is 1.19 with standard error of 0.15. In case of taking loans again mean value dominates in urban areas, but standard deviations is 1.5 in rural area of which standard error is 0.19 . Micro finance characteristics were analysed with the help of mean of 4.05 but urban standard deviation is high that is 1.43 but standard error is comparatively equal that is 0.14 .By understand money transfer facility standard error is preferred from 0.17 rural , with that of 0.14 in urban , The ATM or debit card facility rural dominates the mean that is 4.0 with standard error of 0.15 . mobile banking and internet banking were dominates in case of rural with the standard error of 0.15 and mean of 3.08 finally credit cards, disctiptive statistics shows urban mean is 4.1 with that of standard error 0.10 .

Table no-15

ANOVA

		Sum of Squares	D f	Mean Square	F	Sig.
Opening Bank account	Between Groups	.343	1	.343	.198	.657
	Within Groups	256.217	148	1.731		
	Total	256.560	149			
Taking Loans.	Between Groups	2.231	1	2.231	1.223	.270
	Within Groups	269.929	148	1.824		
	Total	272.160	149			
Micro-insurance	Between Groups	6.833	1	6.833	3.906	.050
	Within Groups	258.907	148	1.749		
	Total	265.740	149			
Money Transfer facilities	Between Groups	.026	1	.026	.015	.904
	Within Groups	264.214	148	1.785		
	Total	264.240	149			
ATM / Debit cards	Between Groups	1.324	1	1.324	.828	.364
	Within Groups	236.516	148	1.598		
	Total	237.840	149			
Mobile banking / internet banking	Between Groups	.132	1	.132	.080	.777
	Within Groups	243.708	148	1.647		
	Total	243.840	149			
Credit cards	Between Groups	4.365	1	4.365	3.017	.084
	Within Groups	214.095	148	1.447		
	Total	218.460	149			

Source: - Primary data

Interpretation:- From the above table no 15, ANOVA opening of bank account between the groups Some of square is 0.343 with F value of 0.198 at significant level of 0.657 with compare to degree of freedom of 1 with that of 148 respondants. Taking loans is a variable when compare to between the group some of square is 2.231 with the F value of 1.22 with the significant of 0.27 , Micro finance is a variable with the mean value of 6.8 of a F value 3.9 at significant level 0.05 with the sum of sqaure is 265. In money transfer facility degree of freedom between the group is 1 percent , with a mean sqaure of 0.26 of F value 0.015 with significant level of 0.9 , when compare to the sum of sqaure between atm card holders between groups is 1 % at a mean square of 1.598 ,with a significant level of 0.36 increase of mobile banking facility between groups sum of square is 0.13 with a degree of freedom at 1% with a mean square of 1.647 at significant level of 0.7 . in case of credit card holders between group member the sum of sqaure is 4.365 at 1% DF ,with a mean sqaure of 4.365 of 0.084 signigicant level.

Hypotheses of the Study

H_0: Null Hypotheses - There is no statistically significant towards the satisfaction difference between the customers of rural and urban areas with that of the financial services provided by the commercial banks of study area.

H_1: Alternative Hypotheses-There is statistically significant towards the satisfaction difference between the customers of rural and urban areas with that of the financial services provided by the commercial banks of study area.

ANOVA

		Sum of Squares	D f	Mean Square	F	Sig.
Banking financial services	Between Groups	0.456	1	0.456	.198	0.000
	Within Groups	256.217	148	1.84		
	Total	256.560	149			

Source: - Primary data

As per the result P - Value for the Levene's test in this study is smaller than 0.05, it means that there is statistically significant difference between the satisfaction of customers of rural and urban areas with that of the financial services provided by the commercial banks of study area. Therefore accept the alternative hypotheses and reject the null hypotheses.

Findings of the study :

i.Server error technology and quality of service

By avoiding and controlling the server error, all banks can give well-organized customer banking services by improving the quality of the services easily.

ii.Notice and ration of Literacy

Better alertness and promotion requirements to be shaped to formulate the Customer alert of the services, which will make them to access e-Banking services easily

iii.Competitors and quality of service

Present Better financial banking service than the Competitors, to overcome intense competition the bank has to focus more on service quality and give more importance to awareness of banking.

iv.Risk related to modern technology and Issues of Safety measures

Giving efficient and more technical user friendly online banking security protections, bank can control and avoid risk allied with modern technologies, therefore it will helps the customers to bank online usage safely and frequently

Suggestions of the study :

i.Have to provide additional services namely, fund to transfer, FD deposits in banks and caution of loss of customers, ATM debit and credit cards, respectively.

ii.To favour of services includes, bank account statements, Check book issues through post, SMS balance, and account information, tracking down online transactions, e-mail, stop payment, financial and customized information.

iii.Give proper direction to banking customers for using different internet banking services.

iv.The Bank customers have to change their secret pin number (ATM cards) thrice in a year for control fraudulence.

Conclusion : The commercial banks are required to advance as there is reaching, not only within the nations, with in the state but also from foreign banks. In India has lack of transparent pricing, financial awareness and customer safety

measures is not enough till now Merely if the bank customers have access to get source of information on their banking which is trustworthy and intention, all banking customer will have more assurance to purchase financial product and services respectively. It is more useful successful intended measures for banks to stay behind gainful in an impulsive and hostile market place in their related area. Today Banking is an inventive mechanism that is faster becoming a more necessary. In future, the ease of utilize of modern technology to ensure safety and privacy of banking financial online transactions and RBI guiding, intimate via text messages principle on various aspects of online banking transaction will absolutely assist in quick growth and development of online internet banking in India.

Reference :

a. Books:

Rao, Janardhan N. 2002. Banking Strategy Volume II, ICFAI, Hyderabad.

b. Articles in Journals:

S, Daniel. 1999. "An issue Analysis of Customers Preference Attributes in Using internet Banking", The IUP Journal of Bank Management,volume 2,Issue 1,march 1999,pp. 73-79.

N, Shirai and Sayuri . 2002. "Avenue from State to Market—review the continuing shift in the direction of to Banking Sector Reforms in India". Indian Bank's Association Bulletin,Issue 3,march 2002,pp.80-86.

Mobeen and Azmathullah. 2002,"The Developing organizational Competencies for organization successes and hopeful Issues for Indian schedule commercial banks". Indian Economic Panorama, Special Banking Issues, june 2002,pp.112-126.

Shiva and Samyoudha. 2002, "The Banking and Customer Service— in an empirical Study" Indian Express New Delhi, India.

Jamal and Naser. 2002, "Analyzed on bank Customer fulfillment and retail banking: An assessment of some of the key experience of customer satisfaction in retail banking",International journal of bank marketing, issue 3, pp.146-160.

Guangying, Hua. 2009, "An Experimental research of Online Banking acceptance in China" Journal of e-Banking and Commerce,volume 14,no 1, April ,pp1-12.

Rullis & Hermanis. 2011, "internet Quality Banking : marketing possibilities and customers loyalty" Journal of Management theory and studies for rural business for infrastructure, volume 2, pp .193-200.

Sharma and Nishi. 2012, "An Emparical study of Rural Customer's Satisfaction from E-Banking in India" ,Journal of Internet Banking and Commerce,no 17,volume 3,pp.1-17.

Srinivasa and Chilumuri. 2013. "Consumer financial awareness in Rural India with special reference to E-Banking services of SBI" , Indian Journal of Research, volume 3,issue 1,pp.1-07.

Darvish, et al. 2013, "Study on relationship between electronic banking and customer satisfaction banking features: A case Study of Tejarat bank in Iran", Management Science Letters,no 3,volume 4,pp.425-430.

Santosh and Potadar. 2013,"Emergence of online internet banking in Rural Area",I nternational journal of ongoing research in management & IT, volume 5,Issue 1,pp.43-48.

Santhosh et al .(2013, "Emergence of E-Banking in rural area",Journal of inernet banking and commerce, volume17, issue 3,pp.35-41.

Parmar, Bhavesh and Patel. 2014. "Rural banking through internet: A study on use of internet banking among rural consumers in India", Global business and economics research journal, volume 2, issue 3,pp.1-14.

Bio-Profile of the Authors:

1. Doctoral Research Scholar, JSS Research Foundation, Affiliated to the University of Mysore, Mysore, Karnataka India,Under the guidance of Dr.M.Prabhu. **Email**-indiasore@gmail.com

2.Assistant Professor in JSS College for women's Kollegala taluk Chamarajanagar district, Affiliated to the University of Mysore, Mysore, Karnataka. **Email-**prabhumonya@gmail.com

Sacred Plants in India : A Study of Magico-Religious Beliefs and Practices

Snigdhamayee Kundu

Abstract : *Man and plant relationship is a phenomenon, which started with the beginning of human history. Plants provide raw materials for our basic needs of food, clothing and shelter. Gradually they discovered the medicinal values of certain plants. Because of the plants' immense benefits our early ancestors began to worship some plants. Medicinal properties of plants are recorded in ancient texts. A number of rituals are performed in different parts of India which are related to fertility and are symbolic representations of Gods and Goddesses. Besides the use of some plants for the cure of diseases, these are also believed to have the capacity to ward off evil spirits. Worship of plants has taken central place in socio-economic and religious life of the people. Present paper focuses on the magico-religious beliefs and practices associated with some plants in India. Functional aspects of the plant in human society are also discussed.*

Key words: *plants, magic, religion, beliefs, practices, sacred*

Introduction : Man is much dependant on the plant kingdom. Vegetation is largely dependent on soil types and climate. India is a land with diverse climatic zones. Plants vary from one zone to the other. Plants are closely associated with the daily life of people. India has a good number of tribal communities. Since most of them live near or within the forested areas plants have great impact on the tribal communities. In rural areas there are different types of beliefs and practices centering on certain plants. Even in urban areas of the country plant worship is also common. In tribal, rural and urban areas of India use of plants for magical purposes are found.

Worship of plants may be traced back to Indus Valley civilization about c.4500 B.P. Seals were discovered from Mohenjodaro showing worship of pipal tree (Gupta 1960). Pipal leaf motifs are also found on Harappan painted pottery. Evidences for importance of plants are found in different cultural periods in India from protohistoric periods onward.

In Hindu mythology several plants are related to a number of Gods and Goddess. These plants are considered as sacred. Examples may be given as Tulsi (Basil) and Amlaki (Indian gooseberry), related to Lord Vishnu; Bel (wood apple) is associated with lord Siva; and lotus symbolizes Goddess Laxmi. Some flowers also symbolize divine deities. Flowers and leaves of different plants are also offered to the deities. Garlands of flower are also used in ritual and ceremonies, both religious and social. Most of the plants worshipped are known to have medicinal values and considered as sacred. Often there are mythologies and folklores about origin of the plants. Sometimes trees and its parts symbolize the prosperity, well being and fertility. A number of plants are used in religious rituals and social ceremonies. These are known as *pavitra-patra* (sacred leaves). These include mango leaves, pipal leaves, banyan leaves, bel leaves, banana leaves, basil leaves and some others.

A number of studies were carried out about the beliefs and practices in respect to tree worship in India. Crooke (1896) made an elaborate study on religion and popular folklores of Northern India. As a part of study, he mentioned about different types of religious and magical use of different plants and trees. He also critically described some events in relation to such use in the western world. Hopkins (1969) discussed about some divine trees and groves, mentioned in Epics of Ramayana and Mahabharata.

Gupta (1960) studied tree symbol worship and its significance. He highlighted tree and tree cult that are found across cultures and nations. His focus was on beliefs and practices associated with different scared plants and its utilitarian role in rural and urban life. In the same year, Das (1960) deliberated on the importance of trees in the folklore of Odisha. He discussed about the myths and folktales with focus on *tulsi, bel, kadamba* and paddy. Upadhaya (1960) studied folklores related with plants of India. Mahapatra (1960) made a detailed study of tree symbol worship in Bengal. His focus was on *pipal, neem and tulsi* plants.

Randhawa (1964) made a study of cult of trees and tree worship in Buddhist and Hindus Sculpture. Gupta (1971) explained the reasons for the worship of

sacred plants. Gupta (1980) made cross cultural study of sacred plants in India. He discussed tree cults, meaning of the symbols and interrelationship between plant and people. Chandool (1976) discussed the position of Tulsi in Indian Folklore. Warman (1999) wrote a book on Trees of India and its medicinal, commercial, religious and ornamental values.

The focus of the present paper is on four plants, namely, *Tulsi, Neem, Amlaki and* Mango. These plants are chosen because of their wide use in curing of diseases and a number of beliefs and practices associated with them. These are common plants found in different parts of the country and are indigenous. Data is collected from secondary sources like journals, books as well as from web sources. Data also has been collected through telecommunications.

Mango (*Mangifera indica*) : Mango is considered as auspicious and ritually pure in Hinduism as well as in Buddhism. There are different stories related to the mythological origin of mango trees. It is regarded as the daughter of Sun god (Surya). There is a belief that mango was a fruit of Ravana's *Ashokavan*, where Sita Devi was confined. Rama brought the seed of mango fruit when he returned to Ayodhya after defeating Ravana, the demon. From Ayodhya it spread to other parts of India. Another legend says that, it was the tree of Lord Indra's *Nandankanan*, the heavenly garden, and on his wish it was brought down to earth (Gupta 1980).

Various parts of mango tree are used in rituals in almost every parts of India. It is also used in life cycle rituals related to birth, marriage and death. Mostly these are found in rural parts of India. Villagers in India believe that the fresh mango leaves placed near a newborn child brings fortune. A festoon of mango leaves is hung across the doorways of the house where the newborn baby resides. This is also hung at the doorways of the house where the marriage is performed with the hope of birth of a son to the newly married couple. The festoons of mango leaves are hung at the doorways of temples as well as of rooms where any ritual or worship is performed. In tribal marriage, bride and bridegroom have to walk around a mango tree before the marriage ceremony takes place. They also worship mango trees with vermillion before marriage (Gupta 1971).

Mango wood is used in funerals and also in sacrificial fire. Oblation may be offered to the God only in the fire which is made out of mango wood. It is

considered as holy and sacred when mango wood is used as funeral pyre. Among Brahmins at the time of sacred thread ceremony, a seat (*Pirha*) made of mango tree is used to sit upon and also used as slate on which the *Brahmachari* writes the alphabets (Gupta 1960).

In Odisha, Mango tree is also associated with the God who accepts human sacrifice. So it is a preferred to commit suicide by hanging from the branches of a Mango tree (Elwin 1954). Gadaba and Khond tribes of Odisha considered the Mango fruit as a symbol of testicles of men because it resembles the scrotum sac of a man. Among the Bondo and Gadaba tribe of Odisha, there is a ritual of stepping over a bark of mango tree after returning from funerals. The branches of Mango trees are considered as antidote to prevent disease from a village.

There is a taboo of eating mango fruit before mango fruit festivals which is observed all over India. Flowers of Mango are offered to the God *Madan* (the God of love) on the second day of Bengali month *Magha* (January-February). It is also offered to the Goddess *Sarasawti* (The Goddess of knowledge) in *Basant Panchami* which is performed during January- February. There is also belief that the person, who waters the mango tree, leads his ancestors to salvation (Gupta 1980).

Mango tree is considered as a transformed form of God *Prajapati Brahma* (God of procreation). Twigs of mango tree are always placed on top of a water filled pitcher (*purna kalasa*). Placing of a full pitcher with mango leave is an essential thing in worship of Gods and Goddesses. Therefore in religious and sacred days Hindus used its twigs as tooth brushes and its leaf as spoons for pouring libation to the ancestors. Mango fruit symbolizes prosperity and wealth. The devotees are offered mango as *Prasad* after worship.

In eastern India, among tribal groups like Kurmi and Munda, there is a practice of marriage with tree before actual marriage takes place. The bridegroom is married to a mango tree. He is tied to the mango tree with a thread and applies vermillion on the tree. The tree is daubed with vermilion (Nair 1960).

There is a belief in Lucknow city, that a mango grove is abode of 'jak' or 'Sakhiya', a kind of spirit. It is considered as corn spirit. The preservation of patches of the jungle is practiced with the motivation to appease the spirit of the place. This type of practice of leaving patches of groves in a cleared land is also common in Scotland as the 'Gaudeman's Croft' (Crooke 1896).

Mango is considered as auspicious tree and assimilated in the beliefs and practices of people both in rural and urban areas. From the above discussion it is clear that parts of mango tree are essential in the rites of passages. It is used in birth ceremony, marriage ceremony as well as death ceremony. Most of the uses are related with human progeny i.e. fertility cult. Besides these a number of magical beliefs and practices are found in tribal as well as rural societies of India.

Neem (*Azadirachta indica*) : Neem is a common tree in rural as well as urban areas of our country. Various types of beliefs and practices in connection with religion, magic as well as for curing of diseases are there centering on the neem tree in different parts of India. It has immense medicinal values. It is also used for cure of ailments like small pox and skin disease because of its antibacterial properties. Neem oil is extracted from the fruit of Neem tree. It has great medicinal value. Neem oil is applied on the head and planter surface of the feet for lowering down the temperature of a patient suffering from fever. Neem flowers also have blood-purifying properties. The soap made from Neem cures skin diseases. The branches of Neem are used for brushing the teeth. Its antibacterial properties help to protect gum from infection.

In Ancient text (Vedas), Neem is called "*Sarva Roga Nivarini*", which means that Neem can cure all diseases and illness. Mythological story tells that the Sun took shelter in the Neem tree to escape from the overwhelming powers of the demons. Planting three or more Neem trees during one's lifetime was considered virtuous and one who does it his soul is supposed to be rested in the heaven after death. In Indian mythology Neem is considered as "*Kalpavriksha*'', the wish full filling tree (Patil 2008).

Nimbarak is a sect of Vaishnavas who worship the Sun in a neem tree. Legend says that Bhaskaracharya, the founder of this sect, had invited a 'Bairagi' to dine with him and unfortunately delayed in calling his guest for meal till after sunset. He was distressed to learn that the *'Bairagi'* is prohibited from taking food after sunset. Bhaskaracharya pleaded with Sun god and he descended on the neem tree under which the food was consumed. Thereafter the neem tree is regarded as Sun God (Crooke 1896).

In Bengal, the nick name of Chaitnya Mahabrabhu was '*Nemai*'. His mother gave the name because he was born under a Neem tree. This event also implies that the tree was also considered as sacred. Since neem is bitter in taste, it is

believed that it can protect people from evil eye. In Nabadwip, district Nadia, West Bengal, the neem tree under which Sri Chaitnya Mahabrabhu was born is worshipped as holy.

Beliefs and practices associated with neem : There is a belief that The Goddess *Shitala* (Goddess of small pox) and her six sisters resided in Neem trees. When a person suffers from small-pox, neem leaves are used in various ways for curing as well as for prevention of the disease. The patient is fanned with the leafy twigs of neem. As the leaves are seats of the goddess, its leaves are believed to possess a curative value. Neem trees are worshipped from the seventh day of waning moon of the Bengali month *Chaitra* to the same date in the month of *Ashar* (July-August). This time is considered as the epidemic season, when diseases like small and chicken pox, measles and other ailments become endemic. Women take bath, wear new clothes and offer rice, sandal wood, flowers and incense at the bottom of the tree (Crooke 1896).

Neem leaves are hung over the front and back doors of the house of Brahmins in Maharashtra, if there is a pregnant woman in the house. The Doms of Uttar Pradesh believe that The Goddess Kali dwells on this tree. In medieval period neem trees were worshipped as the Goddess Manasa, associated with the snake cult. In South India stone images of snake goddess are placed at the bottom of the trees and worshipped. Women also worship neem trees with offering of flowers, vermillion and other fragrant objects on the days of '*Nav-Ratra*', which is performed in the bright-half of the Bengali month of *Chaitra* (March-April) (Gupta 1960).

In Mumbai, in order to protect the mother and child from an evil spirit, leaves of neem and urine of cow are kept at the entrance of the delivery room. When a child is born in the house of a Govardhan Brahmans in Pune, neem leaves are hung on the front and back doors of the house.

People believe that, a person will never be bitten by a snake if he takes food cooked on fire where neem wood is used as fuel. Neem leaves are also chewed in case of snake bites for repealing of poison. A magical belief in neem leaf as a prevention against snake bite prevailed in rural areas. If the man, bitten by a snake chews neem leaf and finds it as bitter, is considered as freed from poison. There is also a belief that if a branch of neem tree is kept with a person, he will

not be bitten by a snake (Upadhyaya 1960). In Northern Europe, neem is also used for keeping out snakes and harmful worms and insects (Crooke 1896).

Neem leaves are used at the time of death pollution throughout Northern India. It is also used as a mode of driving off the spirit which accompanies people from the cremation ground. Neem leaves are ritually chewed after returning from funeral both in rural and urban areas of the country. In Kutch, particular group of *yogis* (*Kanphatas yogi*) pierce their ears and put neem stick in it (Crooke 1896).

Neem leaves are used driving evil spirits out of persons possessed. Magical use of neem leaves is also prevalent in rural India. If a man experiences bitter smell of the smoke of burnt neem leaves, it is believed that he is possessed by a spirit. The smoke of neem wood can also defend against the entry of evil spirit, devil and demon (Upadhyaya 1960).

On the first day of Bengali New Year, Hindus take neem leaves with black pepper and sugar with the belief that they will not suffer from any disease in the year. Tastes of bitter and sweet things are like joy and sorrow in life. In South India, flowers of neem tree are used to make *Ugadi Pachhadi*, a kind of pickle. The ritual of taking neem leaves in the New Years day is considered as paying homage to mother goddess on her birth day. Neem wood is used to make *Patgoswami* during *Charak* festival at the end of the Bengali month *Chaitra* (Gupta 1980).

Banjara people test chastity of their wives with the help of neem. Husbands suspicious of the wife's fidelity throws a branch of neem tree on the ground and the woman have to lift the branch as a test of her chastity (Crooke 1896).

Neem wood and Lord Jagannath, Balaram and Subhadra of Puri, Odhisa :

Lord Jagannth of Puri, Odisha is known as '*Darubrahma*' because the images of Lord Jagannath, Balaram and Subhadra are curved out of neem tree. It is unknown what kind of log came floating across the sea to the shore of Puri, out of which the first image was made. Nabakalebar, that is new image of the Lord, is made out of specially selected neem tree at intervals of eight or twelve or nineteen years in accordance with *Madala Panji,* special almanac of the temple.

The age-old tradition of *Nabakalebar* is based on philosophical concept of 22nd verse of the second chapter of *Shreemad Bhagavat Gita*, a scripture of the Hindus. It says that the immortal soul accepts new material bodies and gives up on the

old one. Literally, *Nabakalebar* means new body. It is a combination of two words "*naba*" meaning "new" and "*kalebar*" meaning "body". Apart from the philosophical explanation, the deity of Lord Jagannath is made of wood. Wood being perishable needs to be replaced from time to time. Neem is chosen for the image of the Lord because it is resistant to pests, insects, and is strong and durable. Further, the Neem wood is considered as auspicious for worship by all castes higher to lower, which is a primary prerequisite for *Jagannath* as he is God to the entire universe. The elaborate ritual of Nabakalebar is described by Mahapatra (2014), Singh (2015) and Pattanayak (2015). A brief account of the same is given below.

Selection of wood (Daru) : Identification of woods for making the idol is done through a long procedure and elaborate rituals. Neem wood for making each of the idols is identified through separate signs.

The tree for making *Jagannath* idol should have dark coloured bark, four main branches and marked with the signs of *shankha* and *chakra.* There should be an anthill and a snake hole at the bottom of the tree. The tree of God Balabhadra must have seven branches, light brown or white coloured bark and marked with the signs of plough and pestle on it. Neem tree for Subhadra should have five branches, a yellowish bark and marked with lotus sign. Sudarshan is made out of a tree with three branches, reddish bark, and marked with the sign of a chakra with a depression in the centre.

The ritual starts at mid-day according to the lunar calendar of *Shukla-Dashami*, tenth day of bright moon, in the Oriya month of *Chaitra* (March to April) with the worship of Lord Jagannath with a garland measuring 12 feet. This garland (*Agyamala)* is regarded as a token of the Lord's permission. This garland is then given to the person who leads the procession of searching for the '*Daru*' i.e. sacred Neem tree.

Worship of the selected wood (Daru) : After finding the *Neem* tree, the *Daitapati*, priest of lord *Jagannath*, places the *Agyamala* upon the tree. The surrounding area of the tree are then cleansed and sprinkled with perfumed water. A platform is erected at the foot of the tree for the *Vana Joga* ceremony. A temporary hut is built near the tree for the group to live. This is known as *Sabar Palli*.

Felling of trees and transportation : *Yajna* and meditation is carried out for three days. The tree is then touched by the priests of different ranks; first with a golden axe by the *Vidyapati*, then by a silver axe by the *Daitapati* and finally with an iron axe by the *Maharana*. After cutting the tree, it is transported with all its branches intact, to Puri on a newly made four wheeled wooden cart.

Making of idol : The work is executed under strictest confidentiality. The work begins on the auspicious day of *Snan Purnima*. After that, prescribed rituals are performed by 108 Brahmins, three most experienced wood carvers begin to work on the idol of Lord *Jagannath*. Two more groups along with three carvers simultaneously start carving the idols of Balabhadra, Subhadra and Sudarshana.

Establishment of soul in the idol : Once the idols are finished, they are brought to the *Anasarapindi* chamber of the temple after taking three rounds of the temple. Most auspicious ritual of Nabakalebar is known as *Ghata Paribarttana*. This ritual is performed in the dead of the night of *Krishna Chaturdashi,* fourteenth day of dark moon, in the Oriya month of *Ashara* (June-July), by three senior most *Daitapatis*, one each for each of the three deities.

Once the *Ghata Paribarttana* is completed, the old idols are considered dead and are buried, along with the subsidiary deities, beds and chariot into a place within the temple premises, known as *Koili Baikuntha.* This concludes the *Nabakalebar* and the new deities are subsequently celebrated with the *Rath Yatra* (Car festival).

Tulsi (*Ocimum sanctum*) : Tulsi (*Tulasi* in Sanskrit) is known as sacred basil and is considered as the meeting point of the heaven and earth. In Sanskrit text it was considered as "*Tulasi-tulana-ataeva tulasi*", i.e. nothing is equal to the virtues of Tulsi (Dubois 1906). Tulsi is held sacred as it is considered as the symbol of Lord *Vishnu* (The god of preserver). It is also known as '*Haripriya*', dear to Lord *Vishnu*. Hindus, particularly the Vaishnavas and pious women worship it daily. Water is offered to the plant and a lamp is placed near it in every evening. Wealth and happiness prevails in the family. The plucking of leaves is prohibited on Tuesday and Sunday as well as on some special days like *Ekadashi* (the eleventh

day of lunar fortnight), Purnima (the day of full moon) and *Amabasya* (the day of new moon). The *Tulsi* leaves should be gathered carefully so that no branch is broken and Lord *Vishnu* is not hurt. Old leaves fallen from a branch can also be used to worship of Lord *Vishnu*.

Another name of the *Tulsi* is *Vrinda*. In Ancient India, there was a garden of Tulsi in Mathura, which was known as Vrindaban. Lord *Vishnu* played in this garden when he was in love with *Vrinda*. Thus place was named as *Vrindaban Bihari*.

There are legends regarding the origin of *Tulsi*. *Tulsi* came out during the churning of ocean of milk for *amrita* (nectar). Another legend says that, *Tulsi* was married to *Jalandhar* who was born from the sweat of the Lord Shiva that fell in the sea. As he was born in the water (*jala*), he got the name of *Jalandhar*. *Tulsi* is also known as *Vrinda*, the wife of *Jalandhar*. When *Jalandhar* became arrogant and started violence on men. People sent a deputation to Lord Vishnu to kill him. Then Lord Vishnu approached tulsi to be unfaithful to her husband, because this was the only way to kill him. After giving the logical explanation, Lord Vishnu convinced *tulsi* with the assurance that she would never be a widow and women will worship her. Then *tulsi* committed *Sati*, and from the ash *tulsi* plant arose (Gupta 1960).

According to the tribal myth, when Lord Krishna violated the modesty of *Vrinda*, she cursed him and said that he will have to put leaves of tulsi on his head for the wrong he had done. Krishna accepted and granted her desire and *tulsi* is most acceptable offering to him than anything else (Gupta 1971).

According to Hindu belief, the root of the *Tulsi* plant is holiest. Middle part is the abode of all gods and goddess and Vedas stay on the upper part. People gets relief from all sin by looking at *Tulsi* plant and its worship liberates the soul.

Offering of cool and fragrant waters to the plant, covering of the *tulsi* plant during summer with a shed to protect it from heat, and clearing weeds near by cleanses a person of all sins committed. Whoever protects the *tulsi* plant from animals and children shall be protected by lord Vishnu. One who waters the *tulsi* with uninterrupted water, during the month of *Vaisakh* (April-May), gets the reward equivalent to horse sacrifice (*Ashvamedha*). One, who sprinkles milk on *tulsi*, becomes fortunate and good luck always stays in his house. One who rubs cow-dung near the roots of *tulsi*, he enjoys the company of Lord *Brahma* (God of

procreation). Anyone who plants *tulsi* with devotion will attain the highest ecstasy on death. Seeing of *tulsi* plant in the morning is same as seeing of Lord Vishnu. Worship of *tulsi* during one's life time ensures strength, glory, wealth and virtuous children. By taking the name, touching and eating of tulsi leaves removes all the sin and pains. One who wears a *Tulasimala* (a garland of *tulsi* beads), no sin can remain in his body. Bathing in water with *tulsi* leaves soaked in it, gets the reward of bathing in the Ganges River. Anything offered to *tulsi* gains the same result as having made an offering to Lord Vishnu. Sacrifices, vows, worship, prayers and good work done near the *tulsi* plant will remain forever even after the death. One who starts journey after looking at *tulsi* with devotion can complete his journey without a misfortune (Gupta 1971).

God Vishnu will punish them who uprooted *tulsi* plant by taking away their luck, offspring and even life. People who urinate or leave excretions on *tulsi* forests, God Vishnu will take away their wealth and life. There is a belief that, at the time of death of Brahmins keeping of *tulsi* plant in front of his head and chanting of '*Tulsi*' and drinking of Ganga water ensures his journey to heaven after death.

Tulsi prevents entering of evil spirit in homes and also known as '*Bhutagni*' i.e. a killer of demon (*bhut*). According to Gupta (1971), as *tulsi* has a number of medicinal properties it can burn or destroy a number of diseases (*bhuts*). During solar eclipse, tulsi leaves are kept on the cooked foods and waters, so that evil effect of eclipse could not contaminate food and water.

'*Tulsi Vibaha*' is performed in different parts of India on the eleventh day of the bright half of the month of *Kartik* (October-November). On this auspicious day *Tulsi* is married to Vishnu. Among Nairs of Kerala there is a taboo for women for wearing of *tulsi* flowers and leaf. But Nair men would put a twig of the plant on the right ear after his morning bath (Nair 1960).

Amlaki (*Emblica officinalis*) : *Amlaki* (Indian Gooseberry) is known by different names like, *Dhatri, Dhatrika, Amalak, Amlaki* and *Amla*. The tree is considered as sacred as it is associated with lord Shiva, Vishnu, and Goddess Laxmi and Parvati. According to the legend, both the Goddess Laxmi and Parvati went to Prabhas, a sacred place near Gujrat. Goddess Laxmi wished to worship Lord Vishnu and Goddess Parvati wished to worship the God Shiva with some new offerings. *Amlaki* was created from the tears of these two Goddesses.

Amlaki tree is planted on the south side of a temple or home as it is considered as sacred. Tribal people of India believe that it has some magical properties.

Amlaki is considered as one of the most sacred trees in Gujarat. Ninth day of the month of *Kartik* (November-December) is known as *Akshaya navami* and women worship the tree with offerings of fruits, flowers, sandal wood paste and vermillion. It is performed with the help of Brahmins who are fed under the tree. Women worship *Amlaki* tree for a boy child. They tie strings (*mauli*) round the trunk of the tree and walk seven times round the tree.

Amla tree is also worshipped on the festival of *Shivaratri* in the month of February. Red and Yellow thread is wrapped around the tree; prayer, flowers, fruits and incense are offered to it. They pray for fertility of women, animals and crops. Finally they bow to the tree (Crooke 1896).

Conclusion

From the study of the four types of trees certain conclusions are drawn. These are as follows:

- All these trees are held divine. A number of myths and legends are associated with the origin of these plants.
- All the plants have medicinal properties and their use for curing of illness was recorded in ancient texts.
- Different parts of the trees are used in rituals as well as social ceremonies because of sacred value.
- The plants are related to fertility and progeny.
- The trees are related with some magical beliefs and practices for warding off evil spirits.
- In most of the cases there are prohibitions and taboos regarding touching, breaking and cutting of the plants discussed.

All the plants discussed have immense importance in the life ways of human beings. The plants have economic, social and medicinal values. To protect these helpful trees and plants, a number of myths and legends are associated with

them regarding their divine origin. It might have come up for the protection of the plants. The beliefs and practices related with these plants are helpful for survival of these species vice versa the survival of human kind also. Further study may lead to methods of better conservation of our ecological heritage for posterity.

References :

Chandool, S. 1976. 'Tulsi plant in Indian Folklore', *Folklore*, Vol XVII, No 4, April.

Crooke, W. 1896. *The Popular Religion and Folk-Lore of Northern India.* Westminster: Archibald Constable & Company. (Vol I, II).

Dubois, J. A. 1906. *Hindu Manners, Customs and Ceremonies*. Oxford: Clarendon Press.

Elwin, V. 1954. *Tribal Myths of Orissa*. London: Geoffrey Cumberlege, Oxford University Press.

Gupta, S. M. 1971. *Plants Myths and Traditions in India*. Leiden: E. J. Brill.

Gupta, S. S. 1960. *Tree Symbol Worship in India*. Calcutta: Indian Publication.

_____ 1980. *Sacred Trees Across Cultures and Nations*. Calcutta: Indian Publication.

Hopkins, E. W. 1969. *Epic Mythology*. New York: Noble Offset Printers. Inc.

Mahapatra, B. 2014. "Nabakalebar', *Odisha Review*, September-October.

Nair, P. T. 1960. Tree Symbol Worship Among the Nairs of Kerala. In: Sankar Sen Gupta (ed.), *Tree Symbol Worship in India*. Calcutta: Indian Publication.

Nair, P. T. 1960. Tree Marriage in India. In: Sankar Sen Gupta (ed.), *Tree Symbol Worship in India*. Calcutta: Indian Publication.

Pattanayak, A. K. 2015. *Nabakalebara of Lord Jagannath*. New Delhi: Aryan Book International.

Singh, S. 2015. "Nabakalebar', *Odisha Review*, April.

Upadhyaya, K. D. 1960. Indian Botanical Folklore. In: Sankar Sen Gupta (ed.), *Tree Symbol Worship in India*. Calcutta: Indian Publication.

Warman, C. K. 1999. *Trees of India: Medicinal, Commercial, Religious and Ornamental: A Colour Atlas.* New Delhi: CBS publishers and Distributers.

Web source

https://en.wikipedia.org/wiki/Nabakalebara ((Accessed on 30.04.2020 at 12.00 p.m)

http://magazines.odisha.gov.in/Orissareview/2015/Apr/engpdf/1-5.pdf (Accessed on 29.04.2020 at 4.00 p.m)

http://magazines.odisha.gov.in/Orissareview/2014/Sept-Oct/engpdf/1-4.pdf (Accessed on 29.04.2020 at 5.00 p.m)

Bio-Profile of the Author:

Assistant Professor, Department of Philosophy, Sivanath Sastri college, Kolkata.
Email : snigdhamayeekundu86@gmail.com

Tribal Land Alienation and Resistance in Jharkhand : A Case Study of Pathalgadi Movement

Debasree De

***Abstract**: The present article has been planned and documented chiefly on the basis of the perspectives of the tribals, the sons of the soil of our country. Recent sway of development has raised many voices of the tribals which cannot be denied any more. The neo-liberal India is witnessing resistance from all over the country against land grabbing, flawed planning of development and increasing poverty. Displacement and deprivation in the wake of so-called development has taken an ugly turn with the introduction of new LARR Act, mining Act, forest Act, and the like. Resettlement and rehabilitation measures are not upto the mark. The present article has tried to focus on a local tribal movement called Pathalgadi movement by conducting a micro-level study in Khunti district of Jharkhand. It also discusses tribal movement against mining briefly.*

Keywords: pathalgadi, tribal, development, mining, displacement, deprivation, movement.

Introduction: Incoherence of government policies can be regarded as one of the calamitous reasons because of which a country's governance can befall easily. In the last few decades the neoliberal economic policies or neocolonial flat-earthism are imposed on developing countries like India. Even the constitutional provisions of the Fifth Schedule covering 112 Community Development Blocks as Scheduled Areas in Jharkhand could not prevent tribal land alienation. British rule introduced many land settlement acts and revenue reforms in Chotonagpur region, but could not buy peace. Two Acts – the Chotanagpur Tenancy Act (CNT) in 1908 in response to the Munda *Ulghulan*

and the Santhal Parganas Tenancy Act (SPTA) in 1949 – regulate and largely prohibit the transfer of tribal land to non-tribals and protect the community ownership. The Wilkinson's Rule (WR) 1837 for Ho and Kolhan areas was also one of those legislations made to prevent tribal land alienation. Other than development projects land alienation is also occurring due to the land fragmentation following the increase in population. Under Chief Minister Raghubar Das's leadership, the Jharkhand assembly passed amendments to both Acts in late 2016 to acquire tribal land for "development projects", but widespread protests compelled the government to withdraw the Bills (EPW: 2019). As a strategy to break the unity of the tribes, the Jharkhand Freedom of Religion Bill was introduced and passed in 2017. A few months later, an ordinance was passed introducing the amendment to the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Settlement (Jharkhand Amendment) Bill, 2017. The ordinance has been awaiting assent of the Governor and President (Xaxa 2019: 10-12).

After India's independence many changes were added in the existing land laws including Chotanagpur Tenancy Act, 1908. This Act allows the transfer of tribal land through legal means, but there are some provisions which can be manipulated in order to legalize any illegal transfer of tribal land.

Section 43 protects lands known as *sarna, jaher, masna, hargari, sasangdir, desauli, jatratanr, mandatnr, akhra* and other lands related to religious practices and tribal festivals, but they are open to encroachment or occupation by the non-tribals. Meaning of these lands are: sacred grove, place of worship, burial ground, land where the bones of the ancestors are grounded, memorial stones of the ancestors, the residence of the village spirit, village fair, place of the fire worship and the dancing floor.

Section 46 has categorically banned any kinds of transfer of tribal land to non-tribals. Interestingly, this very section allows temporary disposition by a tribal to a non-tribal in two ways: firstly, mortgage or lease for a period of eight years and secondly, *bhugat bandha* mortgage for a period not more than seven years. Transfer of land from a tribal to another tribal is also permitted in 1947 amendment with a prior sanction of Deputy Commissioner within same Police Station area. Even after the expiry of the mortgage or lease period, the tribals do not get back their lands (Sinha 2016: 245-275). Needless to say people can

easily circumvent both the conditions and transfer of tribal land becomes an order of the day. The cash-starved poor tribals are also falling prey to the lure of the non-tribal land giants.

Section 49 of CNTA also permits tribals to transfer land for charitable, religious, educational, industrial, developmental, etc. purposes. Section 49(5) says, no tribal could be able to reclaim their lands after a lapse of 12 years (The Chota Nagpur Tenancy Act, 1938). Tribal land is being taken for religious and charitable purpose is quite common in Odisha. It is learnt that thousands of acres of land is lying with Shri Jagannathji Religious and Charitable Trust spread over all the districts of Odisha. It is a government managed trust (Agarwal 2010: 151-152).

Section 71 A says, if the transferee has constructed a substantial structure on the land the Deputy Commissioner can validate the transfer process by giving him a compensation. Thus by paying compensations the DCs are legalizing the illegal transfer of tribal lands. Many tribals have filed writ petitions at the revenue courts to get their lands restored, but since there are only two Scheduled Area Regulation Courts in Jharkhand (Ranchi and Latehar), tribals could not afford to get their lands back.

Zamindari Hukumnamas are another way to connive the laws. These letters of surrender are all forged. The unlettered tribals are not aware of this. *Chapparbandi* or conversion of agricultural land into homestead land; *sada patta* or a sale deed written on white paper instead of stamp paper; dan patra or badlanama or land given as gift; buying land in some fictitious names of tribals and transfer of land via marriage between a tribal and a non-tribal – are very common in Chotonagpur. By marrying a tribal woman people can have easy access to tribal lands. Apart from this, forceful occupation of lands is another means of land grabbing.

Tribal land can also be acquired under the guise of public purpose associated with the notion of 'eminent domain'. Districts like Dumka, Godda, Latehar, Ranchi, Lohardaga and Sahibganj are some major affected regions of dam building, mining and industrialization where the tribals are the worst victims of development-induced dispossession. The destruction of ecology that was started during the colonial rule aggravated during the postcolonial era of development. In the 1970s, a fierce conflict began between the tribals and the

forest department. According to Areeparampil, the main reasons of this conflict were: encroachment by the forest department on tribal customary rights of forest, harassment of the tribals by the forest department officials, commercialization of forest and destruction of forests by the contractors (Areeparampil 1992). Finally in 2001 the new Jharkhand government brought back the orientalism by introducing Joint Forest Management System. Jharkhand has abundance of natural wealth of mineral and forest resources because of which it has become one of the hotspots of development projects (Table 1). With the introduction of neo-liberal economy in 1990s the scale of displacement doubled rapidly when the Jharkhand government initiated the Jharkhand Vision 2010 and Jharkhand Industrial Policy. Despite the Scheduled Areas Regulation Act of 1969 the government is indulging in rampant tribal land alienation and ensuring a speedy transfer of land to the multinationals at a lower price. As many as 66 MoUs were signed in last couple of years which gave three thousand acres of land to Jindal Steel at Ghatshila and more than twenty-five thousand acres to Tata Steel for Green Field Project at Manoharpur and Chandil in East Singhbhum (Ekka 2011: 65-66). There is going to be a massive land acquisition for the infrastructural development of the Greater Ranchi in the coming years.

Coal occupies a very significant position in the overall "mining boom" of our country as it is one of the major mineral resources according to the Mine and Mineral Development and Regulation Act of 1957 (MMDR was amended first in 1988 and then in 2003). The Coal India Limited (CIL) symbolized "public interest", and Acts such as the Coal Bearing Areas (Acquisition and Development) Act (CBAA) legislated to circumvent the protective legislation for tribals. Undoubtedly, Jharkhand is the richest in coal deposits in pre-colonial era and continues to be a resource-periphery in post-colonial India. Jharkhand accounts for 29% of India's coal reserves and contains the largest number of collieries in the country, accounting for 21% of Indian coal production in 2004-05 (Bhushan and Hazra 2008: 159) which is why it is called as the "museum of mineral resources".

Between 2005 and 2009, 34 companies were allotted coal mining blocks in 210 villages in the Karanpura Valley alone. In 2005 the world's topmost global steel corporation Arcelor Mittal Company signed a MoU with the Jharkhand

Government for setting up a steel plant at an estimated investment of Rs 40,000 crores. The company requires 25,000 acres of land and 20,000 units of water per hour for the steel plant and a township in Khunti and Gumla district. The company expected to start mining operation by 2012. The mega steel project and a power plant were proposed to be situated in the Karra, Torpa and Rania block in Khunti district and Kamdara block in Gumla district. The central government granted the lease of the Karampada iron ore mines located in the reserved forest in Meghataburu Mauja in West Singbhum for the proposed steel plant. The company has also been allotted the Seregarha coal block with an estimated reserve of 160 MT (Basu 2008: 22-23).

At the time of the survey, the government had identified a total of 1,025 acres to meet Arcelor-Mittal's land requirement. Much of this is common land; at Torpa-Kamdara block in Gumla district alone, the commons around 10 villages have been handed over to the company. The tribals under the banner of Tribal Moolvasi Astitava Raksha Manch launched an agitation against industrialization in the region. AMARM claims that this is a blatant contravention of community rights clearly mentioned in Khatiyan Part II of CNTA. Karanpura Bachao Sangharsh Samiti (KBSS) and the Dalit Vikas Sangathan (DVS) workers said that that the police prevent activists from demanding their rights. To lure the tribals the company declared $300 million Corporate Social Responsibility (CSR) programme, which would be spent for Rehabilitation and Resettlement package for the state (Srivastava 2018), but could not win over the minds of the poor tribals. Dayamani Barla, who spearheaded the movement against Arcelor-Mittal wrote a book called *Ek Inch Bhi Zameen Nahi Denge* (We will not part with an inch of our land), which became the bible of the movement. She was threatened for her strong stand.

Another glaring example of gross violation of existing Acts is the Chitarpur Coal and Power owned by the Abhijeet Group of Industries in Balumath block of Latehar district. The company purchased the land through fraudulent means and with the increasing protest the company has withheld the mining operation for the time being and offered some jobs which are unskilled in nature. It is reported that Chakra Opencast Mines project in Latehar is going to displace at least 12,000 people from five villages (Lahiri-Dutt and Ahmad 2012: 39-45). Tribals are also protesting against Neelanchal Ispat in order to protect

their customs of community ownership of land. On July 25, 2017 the entire state came to a standstill in response to a bandh called by the CPI (ML) against land grab. At least 21 organizations including the Tribal Jan Parishad, the Moolnivasi Chhatra-Yuva Sanghatan, the Sarna Prarthana Sabha, Nagdi-Chaura Zameen Bachao Morcha, and Ulgulan Mahila Manch actively participated in the bandh. July 5, 2018 witnessed another *bandh* against forcible land grabbing. Non-violent movement against Netarhat Field Firing Project in 1994 has managed to halt the land acquisition for two decades now (Table 2).

During fieldwork in Gumla, Latehar and Hazaribagh districts in September 2019, I interviewed few tribals who said that there was no land survey conducted before the acquisition took place. Vishnu Murmu from Gumla vividly stated that, "Neither the government nor the company authorities met the affected tribals to discuss their hardships. In spite of having Acts, they do not even bother to inform the *gram sabhas* before acquisition."

Pathalgadi Movement: The Pathalgadi movement is political, ethnic and ecological in nature and questioned the notion of the political rhetoric of development in Jharkhand. It has not only challenged the current model of governance but also asserted tribal identity by proposing an alternative of a powerful *gram sabha* as a village agency at the grass root level. The tribal resistance has gained a momentum in recent years as they have started articulating their indigenity and consciousness in such a manner that could link themselves with the nature and landscape currently under threat of the so-called state-led development paradigm. The Pathalgadi movement in this neo-colonial era is a lesson that revives the memory of the tribal movement during colonial era which claims their authority over their own territory. The movement has fostered the sub-national consciousness among the tribals in the country. The Pathalgadi movement in Jharkhand is strong among the Munda and the Ho tribals, who are of Kolarian origin.

Pathalgadi means erecting stones on a dead person's tomb or just to mark any memorable occasion is a well-known custom of the tribals. Tribals inscribe messages on these large stones' which are locally called as Pathalgadi' that are painted green and measure about 15 ft by 4ft and the messages are written in white, apparently to demonstrate their close association with their green

landscape. *Sasandiri* was the original term the Mundas used to describe this practice. These stone slabs are erected by the *gram sabhas* of the villages, which purport, on the one hand, to assume powers by drawing legitimacy from the constitutional provisions. On the other hand, they draw on the customary practice of *parha* panchayat (traditional panchayats of the Tribals of Chotanagpur) to assign more power to the *mankis* (head of *parha*) and the *mundas* (head of the village) (Roy 1912: 117-121). British exploitation of the past was the central theme of the movement, by which the tribals demanded a complete ban on the free passage of the *dikus* and making *gram sabhas* the chief authority (Sen 2018: 81). This has led to the revival of the native system of village governance and the notion of the golden past where there was no displacement, no poverty (The traditional system of self-governance is called the *patti* system among the Mundas, the *parha* system among the Oraons, the *manjhi parganait* system among the Santals, the *munda manki* system among the Hos and the *doklo sohor maha* samiti among the Kharias). The tribals of Jharkhand are awfully in crisis as the influx of outsiders is increasing at an alarming rate. Besides, the *gram sabhas* have been never consulted before any acquisition of land in spite of having clear provisions in Jharkhand Panchayati Raj Act (JPRA), 2001, amended in 2010 as well as PESA in this regard. Pathalgadi movement is aimed to strengthen the role of the *gram sabhas* through PESA (*Hindustan* 25 February 2018).

In February 2017, the government of Jharkhand organized a global investors' summit titled "Momentum Jharkhand" in Ranchi. A lot of MoUs were signed to make the state one of the richest hubs of mining and industrial investments. Companies like Usha Martin Group, RSB Group, Tata Steel Growth Shop (TGS) and others showed interest (*Times of India* 2017; *Daily Pioneer* 2017). The government declared that it will form a "land bank" in which thousand acres of non-cultivable land will be included to materialize the development programmes (*Indian Express* 2018). This was the background of the Pathalgadi movement. After the declaration made by the Chief Minister tribals got really afraid of being displaced by the development projects. In a small village called Bhandra of Khunti district in Jharkhand, a stone slab was erected on the boundary of the village on 9 March 2017 (*Hindustan* 8 March 2018). Initially, the Khunti district of Jharkhand was the stronghold of the movement which

later spread to neighbouring districts of Latehar and Singhbhum, and the areas of Jashpur in Chhattisgar (*Dainik Bhaskar* 6 March 2018). The movement first came to the news when on 21 February 2018 25 policemen were detained by the villagers of Kanki in Khunti district for entering their locality without prior permission of the *gram sabha* and arresting the gram pradhan. Since then, arrest of leaders of the movement and gram pradhans has resulted in *gherao* of police stations, stopping armed policemen for questioning for trespassing in their area and holding policemen hostage for releasing persons arrested on the charges of Pathalgadi which has become a regular feature. On 23 May 2018, villagers of Baruhatu of Khunti held an anti-landmine vehicle and eight policemen hostage in return for the release of Durga Munda who was associated with the Pathalgadi movement (*Dainik Bhaskar* 24 May 2018). Several villages of the district – Kanki, Kochang, Jilinga, Udburu and others – erected stone slab inscribed with the order given by the *gram sabha* for implementing constitutional provisions, such as Article 13(3)(a), Article 19(5)(6), Article 244(1) Part(b) Para (5)(1) of the Fifth Schedule. Significantly, the slab recorded a similar order by the *gram sabha* imposing restrictions on the entry of outsiders which included police, government officials, medical staff and strangers. This way, the traditional cultural practice of "Pathalgadi" was employed with political motives, first, drawing legitimacy from the Constitution and second, on its facade declaring their landscape as an autonomous zone (Singh 2019: 28-33).

According to Virginius Xaxa, while the state government and mainstream media have tagged the Pathalgadi movement as "anti-national" and "Maoist", it brings to the fore longstanding issues of tribal land alienation. Cases of sedition have been filed against people sympathetic to, and those associated with the movement, as well as villagers supporting the movement. A large number of people have been arrested. Some are on bail while others are still languishing in jails. The Pathalgadis have, on the other hand, very justifiably claimed it to be constitutional (Xaxa 2019: 10-12). The movement is trying to promote indigenous model of education, open indigenous banks, reject the state authority and conveyed their solidarity with other tribal movements of the other parts of our country. The schools that they have started for the poor tribal children are operated by the *gram sabhas* and teach how to resist state oppression (*Dainik Bhaskar* 10 March 2018).

Jharkhand government considered the movement as a mere law and order problem and arrested the leaders without any provocation. The leaders like Krishna Hansda, Vijay Kujur, Jyoti Lal Besera, and Shaktapado Hansda were booked under secession laws. The government was quite clueless of why the movement was? Different versions were coming out on their part; sometimes the government said that the movement was to acquire the economic benefit of the opium cultivation in Khunti district by the leaders of the movement, sometimes it blamed the Christian missionaries for inciting the tribals against Hindus (*Dainik Bhaskar*, 10 April 2018) and sometimes accused that there is an attempt to create a separate state with East Singhbhum, West Singhbhum and Seraikela Kharsawan districts under the camouflage of Pathalgadi movement (*Hindustan* 25 May 2018).

The Pathalgadi movement received a huge response from the tribals of Jharkhand. They used to attend all the meetings addresses by the leaders of Tribal Mahasabha with their traditional weapons like bows and arrows. The turnout was really appreciable because as many as five thousand tribals, including a large number of tribal women, are found attending the rallies. On 3 April 2018, the Governor of Jharkhand, called a special meeting of the gram pradhans, manki munda and parha rajas, felicitate them all to placate the movement (*Hindustan* 3-4 April 2018). Tribal organizations such as Desh Pargana Mahal and Tribal Mahasabha (*Dainik Bhaskar* 25 February 2018) are currently working towards raising awareness of the tribals about their autonomy and complete control over their own landscape called *abua disum, abua raj* (our village, our governance). The movement has spread over Chhattisgarh and Odisha.

Case Study: I visited the Uduburu village of Khunti gram panchayat in Jharkhand in September 2019, which was a hotbed of the Pathalgadi movement. The village is inhabited both by the SCs and STs. All my respondents belong to Munda tribe. I have interviewed 30 people amongst whom 15 were men and 15 women. The fieldwork has revealed many hard realties starting from changing occupational pattern to resistance. Let us look at the changing nature of assets that the local adivasis possessed and occupational distribution before and after displacement (See Chart I and II).

During displacement the land possession pattern shows that all the landholders have lost their land. No major change is visible in the percentage of livestock rearing or forest collection as the company could not generate any alternative source of livelihood. The next chart will focus on the changing nature of occupational distribution in the pre and post displacement periods. As far as the occupational distribution is concerned, the dependence on agriculture was really high before displacement. There were other occupations as well and most importantly there was no unemployment. But with the process of land grabbing almost 80% people lost their jobs especially due to the loss of their land and also because of the lack of any viable employment option. On the other hand people are investing more time in the subsidiary sectors like farm work and other part-time jobs. Some people have opened few shops and started their own business to cope with the negative impact of displacement.

The people of Pathalgadi have been actively taken part in the anti-displacement movement, incarcerated and threatened. The movement was conducted first in a peaceful manner and then after the brutal police repression it got violent. Both men and women equally took part in the protest and spoke about their fear of getting evicted without any information or rehabilitation. Their resistance was finally able to stall the projects.

Conclusion: Tribal resistance to the neo-colonial development projects has lately acquired a new dimension. Their movement has affirmed their right to exercise control over land and other natural resources. This is called the right to earth. Right to earth is not only a shallow defense of indigenous right to land but is a defining factor to develop a local mode of management of land according to the local people's requirement. The movement is also against the existing inequalities and oppression. They have even attracted international attention, like POSCO, Kashipur and Vedanta movement. Therefore, a new internationalism is coming to the fore and strengthening global cooperation among people's movements. NGOs have often played a crucial role in depoliticizing the protest movements of the tribals which can be defined as a neo-colonialism from below. For example, Action Aid and its offshoots called Action Aid Asia on the one hand played an active part in the tribal movement against Vedanta, but on the other received donations from Vedanta's parent

company Sterilite. Action Aid India also has a tie-up with ICICI bank which is a major investor in Vedanta (Kak 2010: 30-34). After getting stripped off their possession, the tribals are forced to move in search of livelihood to some unknown destination. After moving to the new cities they found themselves in a completely distressing situation. They somehow manage to work as unskilled labourers and the transformation from a free peasant to an unorganized worker is no doubt painful and traumatic. Finally, the development makes the rich richer and the poor poorer. The tribals, the poorest of the poor, are taken just as collateral damage along with the climate.

References :

Agarwal, P.K. 2010. *Naxalism: Causes and Cure*. New Delhi: Manas Publications. pp. 151-152.

Areeparampil, M. 1992. 'Forest Andolan in Singhbhum'. In S. Narayan (ed.) *Jharkhand Movement: Origin and Evolution*. Delhi: Inter India.

Basu, Moushumi. Nov. 29 - Dec. 5, 2008. 'Arcelor-Mittal in Jharkhand'. *Economic and Political Weekly*. Vol. 43 (48):22-23.

Bhushan, Chandra and Monali Zeya Hazra. 2008. 'Mining in the Sates: Jharkhand and West Bengal'. In *Rich Lands, Poor People: Is 'Sustainable' Mining Possible? State of India's Environment: Sixth Citizens' Report*. New Delhi: Centre for Science and Environment, p. 159.

Daily Pioneer. 5 October 2017.

Dainik Bhaskar. 2018. Ranchi.

Ekka, Alex. 2011. *A Status of Adivasis/Indigenous Peoples Land Series-4, Jharkhand*. Delhi: Aakar Books. pp. 65-66.

EPW Engage. October 14. 2019. 'Jal, Jangal aur Jameen: the Pathalgadi Movement and Adivasi Rights', downloaded from https://www.epw.in/engage/article/pathalgadi-movement-nation-autonomy-rights-adivasi-jharkhand on 12.12.2019

Hindustan. 2018. Ranchi.

Indian Express. 7 April 2018.

Kak, Sanjay. 2010. 'The Bauxite Mountains of Orissa', *Economic and Political Weekly*. Vol. XLV (38): 30-34

Lahiri-Dutt, Kuntala Radhika Krishnan and Ahmad, Nesar. February 11, 2012. 'Land Acquisition and Dispossession: Private Coal Companies in Jharkhand'. *Economic and Political Weekly*. Vol. 47 (6): 39-45

Roy, S. C. 1912. *The Mundas and Their Country*. Calcutta: Kuntaline Press. pp. 117–121.

Sen, Asoka Kumar. 2018. *Indigenity, Landscape and History: Adivasi Self Fashioning in India*. New York: Routledge. p. 81.

Singh, Anjana. 2019. 'Many Faces of the Pathalgadi Movement in Jharkhand', *Economic & Political Weekly*. Vol. LIV (11): 28-33.

Sinha, B.K. 2016. 'Irrelevance of Land Reforms Policies to the Tribals of Jharkahnd'. In edited by K.B. Saxena and G. Haragopal (eds.) *Marginalization, Development and Resistance*. New Delhi: Aakar. Vol. II. pp. 245-275.

Srivastava, Arun. 28 July 2018. 'Adivasis of Jharkhand on War Path to Protect their Identity'. *Mainstream*. Vol. LVI (32). New Delhi. Downloaded from https://www.mainstreamweekly.net/article8119.html on 23.01.2010.

The Chota Nagpur Tenancy (Amendment) Act. 1938. (Bihar Act 2 of 1938). Bihar Legislative Department, Superintendent. Government Printing. Bihar. 1938.

Times of India. 19 May 2017.

Xaxa, Virginius. 2019. 'Is the Pathalgadi Movement in Tribal Areas Anti-constitutional?' *Economic & Political Weekly*, January 5. Vol. LIV (1): 10-12.

Table 1: Total Land Acquired for Development Schemes in Jharkhand 1951-1995

Category of Project	Private Land and % of the total land acquired		Common Land and % of the total land acquired		Forest Land and % of the total land acquired		Total Land and % of the project type total land acquired	
	Land Acquired	%	Land Acquired	%	Land Acquired	%	Land Acquired	%
Water Resources	364,646.00	71.7	94,808.00	18.7	48,498.00	09.6	507,952.00	34.0
Industries	98,525.59	56.1	63,768.68	36.3	13,435.91	07.6	175,730.18	11.7
Thermal Power	2,598.45	43.1	2,534.38	42.1	894.04	14.8	6,026.87	00.4
Mines	184,169.00	35.7	156,341.19	30.4	174,614.40	33.9	515,124.59	34.4
Defence Estd.	22,543.61	20.1	11,134.93	09.9	78,610.57	70.0	112,289.11	07.5
Misc. Schemes	152,000.65	85.0	8,941.21	05.0	17,882.43	10.0	178,824.29	12.0
Sub Total	824,483.30	55.1	337,528.39	22.6	333,935.35	22.3	1,495,947.04	100.0
Missing Schemes	27,550.00	55.1	11,300.00	22.6	11,150.00	22.3	50,000.00	
Grand total	852,033.30		348,828.39		345,085.35		1,545,947.04	

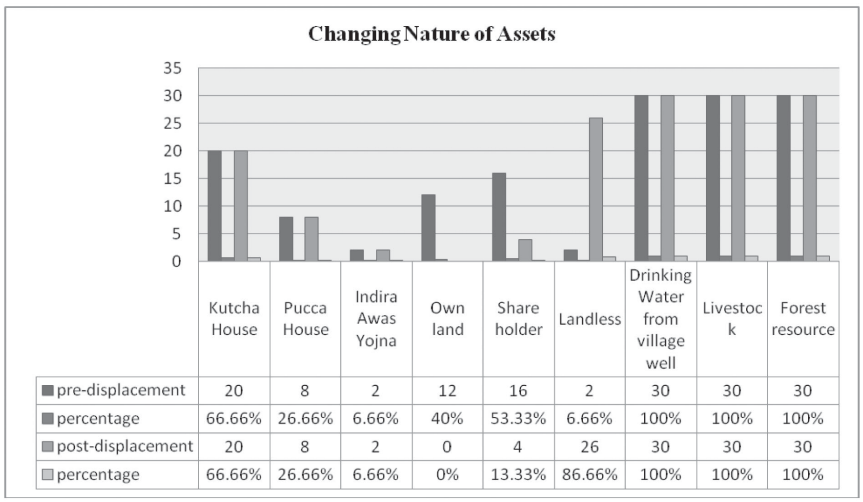
Source: Ekka, A and Asif, M. 2000. *Development-induced Displacement in Rehabilitation in Jharkhand*. New Delhi: Indian Social Institute. pp. 110-111.

Table 2: Displacement Caused by Land Acquisition (as Declared by Mining Companies)

Company	Annual Capacity of Coal (in million tones/year)	Land Requirement (in hectares)	Estimated Displacement in EIA (Number of People/Families)
Essar Power Jharkhand (Chakra Opencast)	4.5	900	211 families
Neelanchal Ispat Nigam	1.3	383	1,737
Chitarpur Coal and Power (Abhijeet Group)	0.68	1,378	149
Eastern Mineral Trading Agency	3	491	1,158
Nico Jaiswal	1	294	Not available

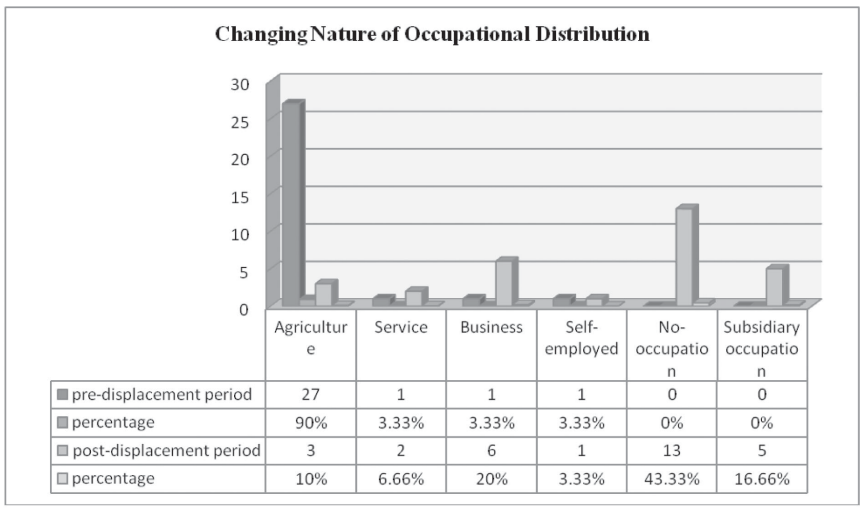
Source: Various Environmental Impact Assessment Reports submitted by the companies to PCB and MoEF, New Delhi: Government of India.

Chart I



	Kutcha House	Pucca House	Indira Awas Yojna	Own land	Share holder	Landless	Drinking Water from village well	Livestock	Forest resource
pre-displacement	20	8	2	12	16	2	30	30	30
percentage	66.66%	26.66%	6.66%	40%	53.33%	6.66%	100%	100%	100%
post-displacement	20	8	2	0	4	26	30	30	30
percentage	66.66%	26.66%	6.66%	0%	13.33%	86.66%	100%	100%	100%

Chart II



	Agriculture	Service	Business	Self-employed	No-occupation	Subsidiary occupation
pre-displacement period	27	1	1	1	0	0
percentage	90%	3.33%	3.33%	3.33%	0%	0%
post-displacement period	3	2	6	1	13	5
percentage	10%	6.66%	20%	3.33%	43.33%	16.66%

Acknowledgement: The article is a part of Minor Research Project funded by Indian Council of Social Science Research (ICSSR) IMPRESS Scheme.

Bio-Profile of the Author:

Assistant Professor, Department of History, Maharaja Srischandra College.
Post-Doctoral Fellow at the Department of History, Jadavpur University.
Email – debasreede16@gmail.com

Comparative Sketches of Suicidal Ideation and Depression of Internet Addicted Male and Female College Students of Kolkata

Sraboni Chatterjee[1]
Sreeparna Majumder[2]

Abstract : *The aim of the present study is to make a comparative analysis of suicidal ideation and depression of internet addicted male and female college students. A sample of 200 college students having moderate levels of internet addiction (100 male and 100 female) was selected. The interacting variables selected for the present study were suicidal ideation and depression. Result indicates that from the viewpoint of significant differences no such remarkable differences were found out in case of suicidal ideation, only depression proves to be an important catalyst in such instances. Magnitudinal differences reveal that male college students possess a lesser depressive tone and utilize the internet as a mode of recreation, but on the other hand, female college students possess higher depressive tone and becomes the easy victims of emotional upheavals. Correlational analysis pinpoints that increment in depressive tone also invite suicidal thoughts in the lives of both males and females. As a whole, internet addiction proves to be an important factor for college students and its adverse effect illuminated the lives of young adults with psychosocial turmoil.*

Key words: internet addiction, suicidal ideation, depression

Introduction : The current world scenario is significantly embedded with significant student population. There are several ways, positive and negative, through which social media made its impact on college students. Due to paucity of time and vistas of activities, college students use social networking sites for their higher education. Researchers have begun to objectively examine impacts

on students' well-being and have found some preface results that call for more research. They find that social media are not the problem—the problem is the specific use and purpose of social media tricks that make the divergence.

Huge numbers of individuals on the web are interested to gather information about others and meet other individuals, to assemble, share data and encounters on many areas and topics. As a result of this, hundreds of social networking sites have been prepared, and they have pulled in a large number of clients in the few short years that interpersonal dealings has turned into a marvel. The key elements of the social media websites are vitally the same, yet each site attracts variety of clients in a wide range of ways. Social site mostly tries to gather huge public, while the aim of others is to draw in individuals based on their race, ethnicity, and nationality. The social media websites are additionally different in the ways in which they appear and join new data and focused devices, similar to transportable access, blogging, photograph and video sharing.

The main purpose of social media is to give admission to its clients and users. They can have conversation with individuals and build social relations on the web. They can equally split their contemplations and individual data on social media including everyday happenings, suppositions, movies, recordings and web-links. This is also another way through which individual's aptitude and business can be developed. The capacity of online networking to extend valuable data quickly has made it the quickest developing method of association. With such a high rate of students using social media networking on daily basis, there is a strong need to scrutinize the extent to which social media is having its impact on students. Individual's interests, characteristics can be shared through the platform of social networking websites. Users can place their personal information and pictures on a profile page, which displays a list of the user's connections, also known as "friends" (Junco and Cole-Avent, 2008; Junco and Mastrodicasa, 2007). Beyond the social networking sites themselves, the fame of mobile technology with cell phones has provided another coating of impact on college students. Literature suggests that face book is one of the popular social networking site (Dahlstrom, deBoor, Grunwald, and Vockley, 2011; Junco, 2011a). People favor to play games online that do not engross any physical activity. The purpose for this is individuals desire to play games online which do not involve any physical action.

Considering the effect of social media, Khan (2010), found out that a large portion of students use social media networking because of the peer pressure and due to the fact that their friends have been using it. Those who achieved 3.0 to 3.5 GPA (Grade Point Average), for the most part utilize person to person communication sites for excitement. Maqableh, Rajab, Quteshat, Ra'ed Moh'd Taisir Masa'deh, Khatib, Karajeh**,** (2015) suggested that the students, who spend most of their time of the week days using social media, also able to maintain their academic grades by giving adequate time to their studies in weekends.

In studying the impact of social media so many variables are found that have high correlation with it. Depression and suicidal ideation are the significant one among them. World Health Organization (2012) defined that at the extreme level suicide is the ultimate result of depression. A new study found that teenagers are increasingly depressed, feel hopeless and are more likely to consider suicide (Twenge, 2012). During the process of excessive stress and depression, some people may undergo with suicidal thoughts.

Considering the above discussion it is clear that internet addiction is one of the prevalent problems of present day and it is highly correlated with depression and suicidal ideation, so the present venture probes to make a comparative analysis between internets addicted male and female college students with respect to their suicidal ideation and depressive tone.

Implementing all the categorical discussions the objectives of the present study are resolute to be: -

- To locate, the difference, if there is any, between male and female college students with respect to their internet addiction.
- To locate the difference, if there is any, between male and female college students with respect to their depression
- To locate the difference, if there is any, between male and female college students with respect to their suicidal ideation
- To locate, if there is any relation, between Internet addiction and depression among male college students
- To locate, if there is any relation, between Internet addiction and suicidal ideation among male college students
- To locate, if there is any relation, between suicidal ideation and depression among male college students

- To locate, if there is any relation, between Internet addiction and depression among female college students
- To locate, if there is any relation, between Internet addiction and suicidal ideation among female college students
- To locate, if there is any relation, between suicidal ideation and depression among female college students

2. METHOD:

2.1 Research Problem:

The present study attempts to make a comparative measurement between male and female college students with respect to their internet addiction, suicidal ideation and depression

2.2 Operational Definitions:

2.2.1 Internet addiction: The internet is a new tool that is used as an essential part of everyday life all over the world and its use increases especially among young people. In spite of the extensively perceived merits of this tool, psychologists have been alert of the negative impacts of its use, especially the over or exploitation and the related physical and psychological problems (Greenfield, 2000). The term "Internet addiction" explained that pathological compulsive internet usage was proposed by Goldberg (1995). Internet addiction is characterized by undue or feebly controlled preoccupations, urges or behaviours regarding computer use and internet access that direct to mutilation or distress (Shaw and Black, 2008).

2.2.2 Depression: Depression is largely seen by the universal public and conventional media as a neuropsychiatric illness (Wingert & Kantrowitz, 2002) with a unpredictable course that is best described in disease-state terms such as *disorder, episodes, reduction, recovery, reversion,* and *recurrence* (Frank et al., 1991). Depression is a state of low mood and loathing to activity that can affect a person's thoughts, behavior, mind-set, and sense of welfare (DSM-V; 2013).

2.2.3 Suicidal Ideation: The interpersonal-psychological theory of suicidal behavior (Joiner, 2005) proposes that it is difficult for an individual to die by suicide unless s/he has both the yearning to die by suicide and the ability to do

so. Suicidal ideation is defined as thoughts, dreams and the desire to commit suicide, being a frequent behavior surrounded by adolescents and characterized as a personality disorder or with the character of emotional blackmail (Ahmad, 2014 & Abasse, 2009)

2.3 Research Hypotheses:

• There is no significant difference between male and female college students in terms of their internet addiction

• There is no significant difference between male and female college students in terms of depression

• There is no significant difference between male and female college students in terms of suicidal ideation.

• There is no significant relation between suicidal ideation and depression among male college students.

• There is no significant relation between suicidal ideation and depression among female college Students

2.4 Sample: Total number of 200 college students (100 male and 100 female) was selected on the basis of following criteria:

2.4.1 Inclusion Criteria:

- Age: 19 – 22 years
- Sex: Female and Male
- Mother Tongue: Bengali
- Socio- economic Status – Middle to Upper socio-economic status
- Locality / Area – Kolkata
- Marital status – Unmarried
- Educational Qualification - H.S passed

2.4.2 Exclusion Criteria:

- Age: Below 19 years and above 22 years
- Mother Tongue: Non - Bengali
- Socio- economic- status: lower middle class
- Locality / Area: Outside Kolkata
- Marital status: Married

- Educational Qualification: High school students
- Those who were not access internet was excluded
- Clinical Status- Presence of psychopathological symptoms

2.5 Tools Used:

2.5.1 Information Blank: Consisting of information like name, age, sex, religion, mother tongue, education, family history, personal hobby, future economic plan, and major illness.

2.5.2 The General Health Questionnaire (GHQ) by Goldberg and Hiller (1979) is used for eliciting psychiatric morbidity among the sub-samples.

Description of the Tools: The test has been developed by Goldberg and Hiller in 1979. It is a self- administered selection test through which psychiatric disorders among the respondents can be detected. The questionnaire was designed in a easy way to administer, acceptable to respondents, reasonably short and objective in the sense that it did not require the person administering it to make biased assessment about respondents. There is no time-limit to complete the test. The instruction to complete it precedes the inventory.

Development of the Test: This test was developed by Goldberg and Hiller (1979) in different version depending upon the nature of items. GHQ-28 containing 28 items is derived from factor analysis of GHQ-60 and consists of four subscales; each subscale assesses separate factors like somatic symptom, anxiety and insomnia, social dysfunction and severe depression. It is used as a case detector and as good as other version of GHQ. At the same time it gives scale sub-scores. Each item has four response alternatives.

Scoring: Scoring was done by GHQ method (0-0-1-1-) as suggested by Goldberg and William (1988). Limits for case- identification was considered as 4/5, i.e. score signifies a non-psychiatric case. Total score ranges from 0-28.

Interpretation: It is based on the responses given and scores assigned to them accordingly. Greater score indicates negative health conditions i.e. lower score indicative of good health condition.

Reliability: In GHQ, correlation co-efficient of each item with total score is significant at 0.01 level. The split-half reliability is 0.97. The sensitivity and specificity of the test are 1 and 0.88 respectively.

Selection of the Tools: In the present study, the General Health Questionnaire (GHQ) is used among the subjects to search out those with a psychiatric disorder.

2.5.3. Internet Addiction Test (Young 1996): It is a reliable and valid measure of addictive use of internet developed by Dr. Kimberly Young in 1996. The scale is consisting of 20 items that measures mild, moderate and severe level of Internet Addiction. In this scale the items rated in a five point Likert Scale.

Internet addiction measured by Internet Addiction Test:

20-49 points: Mild (one is a standard online uses. One may surf the web a bit too long at time, but have control over once usage.)

50-79 Points: Moderate (one is experiencing occasional or frequent problems because of the internet. One should consider their full impact on once life.

80-100 Points: Severe (One's internet usage is causing significant problem in once life and address the problem directly caused by one's internet usage). The higher score indicates greater level of addiction.

Reliability and Validity: Factor analysis through principal component and various rotations exposed five factors of social problems, effect on presentation, lack of control, pathological use of chat rooms and neglecting educational and occupational duties. Content and convergent validity, internet consistency (á= 0.88), test-retest reliability (r= 0.88) and bisection (r= 0.72) was determine and all were acceptable, regarding results.

2.5.4 Beck Depression Inventory-II (Beck, 1996): This inventory is a extensively used instrument that provides in sequence about the occurrence and rigorousness of depressive symptoms. It was developed by Beck and available in the year 1996. It is a 21 question multiple choice self-report inventories scored from 0-3. Now after completion of the questionnaire, add up the score for each of the twenty-one questions by counting the number to the right of each question one has marked. The uppermost possible total score for the whole test would be sixty-three. This would mean one can circled number three on all twenty-one questions. Since the lowest potential score for each question is zero, the lowest achievable score for the test would be zero.

Levels of depression measure by Beck's Depression Inventory- 0-10: These ups and downs are considered normal, 11-16: Mild mood disturbances, 17-20: Borderline Clinical Depression, 21-30: Moderate Depression, 31-40: Severe Depression and Over 40 Extreme depression

Reliability and Validity: Reliability estimates ranges from .72 to .91 for the BDI-II total and for the scale scores. Concurrent convergent and discriminant validity were established were established for BDI-II

2.5.5 Suicidal Ideation Scale (Reynolds, 1991): Suicidal ideation, which means, the judgment and cognitions one has about suicidal behaviors and intent, may be considered a chief marker for the risk of more serious suicidal behaviors.

Adult Suicidal Ideation Questionnaire (ASIQ; Reynolds, in press-a), is a self report questionnaire and consisting of 25 questions. The summation of its items represents the total score. The range of score is from 0 to 150, where a high score indicates greater suicide ideation (Reynolds, 1991).

Reliability and validity: Results indicated that test-retest (r [sub tt] = .86) reliability of the ASIQ with college students was satisfactory and internal consistency was (rá = .97). Depression, hopelessness, anxiety, and self-esteem have significant correlations (rs= .38 to .60) with depression. Validity of the instrument was assessed with quite a few methods. The correlation with the Beck Depression Inventory (BDI) of ASIQ was r = 0.60; in case of Beck Hopelessness Scale, r = 0.53; by means of Beck Anxiety Inventory, r = 0.38; and with the Rosenberg Self-Esteem Scale (RSES), r = 0.48; and with an pointer for previous suicide attempt, r = 0.33, which is to some extent attenuated by the low commonness of past suicide attempt in the sample and the dichotomous character of the indicator. All the findings of correlations in this validity analysis were significant at $p < 0.001$. The author further assesses the validity of the ASIQ with multiple regressions and also with covariates for each of the five measures used to make lawful the ASIQ above. Coefficient for the BDI across the total sample was 0.301; .279 for BHS; .190 for suicide attempt;-.127 for RSES. All coefficients were also significant at $p < 0.001$, except RSES, which was significant only at $p < 0.01$. BAS was not found to be significant. These coefficients suggest that a relationship exist with depression, hopelessness, and suicide attempts with the ASIQ score.

There is a growing concern for identifying individuals at risk for suicidal behaviors. Suicidal ideation, that is, the thoughts and cognitions one has about suicidal behaviors and intent, may be considered a primary marker for the risk of more serious suicidal behaviors.

2.6 Sampling Technique: The present research endeavor has employed purposive sampling as the technique of selection of subjects. Here on the basis of inclusion and exclusion criteria the researcher on the basis of her own judgement selects the member from the population to the sample. After outlining the methodological plan adopted during the present study, it is necessary to describe the procedural steps in some details. At this juncture, it is also needed to shed light to some preparatory work that was done prior to the final administration of the tests.

2.7 Procedure:

Step 1: Rapport was established with the candidates.

Step 2: At first, considering the inclusion and exclusion criteria male and female students belonging to the age group of 19-22 years, having Higher Secondary passed educational qualification and mother tongue Bengali were selected. The students were selected from Kolkata and their per capita family income was above Rs: 20,000 (assessed through the Information Blank). General Health Questionnaire by Goldberg and Hiller (1979) was administered to the college students in order to assess the presence of psychopathological symptoms within them. As the study aims to assess the level of depression among the internet addicted college students, so here, by administering GHQ, students who have scored 4/5 were eliminated from this present venture because presence of any psychiatric morbidity can produce a buffer in the pathway of completion the aim of this study. At this point, 400 students were taken into consideration for the further proceedings.

Step 3: In the next step, Internet addiction Test by (Young, 1996) was administered to all of them. As this study purports to examine the comparative parameter of depression and suicidal ideation between internet addicted male and female college students, so those college students who have scored 50 and above (moderate and severe addiction) in this test were taken for further processing of the study. From the total sample of 400 students only 200 students (100 were male and 100 were female) were used for the final study.

Step 4: After that, Adult Suicidal Ideation Scale (Reynolds, 1991) and Beck Depression Inventory (Beck, 1996) were applied to them randomly to avoid the order effect. As GHQ was applied beforehand and psychiatric morbidity was already ruled out so the level of depression carried out by these individuals may

be contributed due to internet addiction. Moreover, the administrator provided some crucial points to the informant of the students regarding the further treatment of those students who were belonging to the category of moderate level of depression (score range 21-30). Beck Depression Inventory was a clinical scale and Adult Suicidal Ideation Questionnaire was not but in the literature it was found that the correlation between these two scales were (r = 0.60) quite satisfactory, so these two scales were taken in the present venture.

2.8 Statistic Used:

Descriptive Statistics: Mean, Standard deviation and coefficient of correlation was applied to find out the relation between the variables for both sexes.

Inferential Statistics: t-test was also used for finding out the significance of mean differences between the groups.

3. RESULTS:

The data obtained from the subjects were systematically organized and properly tabulated with respect to each of the variables considered in the present study. The presentation of the data has reflected the measures of the obtained selected study variables and their statistical distributions on the basis of which suitable statistical techniques were applied to analyze and to find out essential information to serve the objectives of the study. The processed data have been represented in different sections as follows-

As the study deals with the comparative parameter of male and female college students addicted to internet with respect to suicidal ideation and depression, so, the basic criteria for screening must be considered at this preliminary level. It was already mentioned that from 400 students, only 100 males and 100 females who have scored 50 and above (moderate addiction) were selected.

In the following two table descriptive statistics and t-test for mean difference was calculated to see that whether the addicted group was significantly different from the non-addicted group or not.

Table 1 shows the mean and standard deviations of internet addicted and non-addicted males and females

Males (N=200)				Females (N=200)			
Addicted (N=100)		Non-Addicted (N=100)		Addicted (N=100)		Non-Addicted (N=100)	
Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
84.18	8.85	28.24	11.15	85.47	5.25	20.98	8.80

Table 2 shows the significant mean difference between internet addicted and non-addicted individuals of male and female groups

Males (N=200)					Females (N=200)				
Addicted (N=100)		Non-Addicted (N=100)		t-value (df=398)	Addicted (N=100)		Non-Addicted (N=100)		t-value (df=398)
Mean	S.D	Mean	S.D	39.20**	Mean	S.D	Mean	S.D	62.88**
84.18	8.85	28.24	11.15		85.47	5.25	20.98	8.80	

***p<0.05 level of significance **p<0.01 level of significance**

The above table indicates that in case of gender; addicted and non-addicted both groups are significantly different with each other.

Table 3 represents mean, standard deviations and significant mean difference of internet addicted male and female groups with respect to the selected variables

Variables	Males (N=100)		Females (N=100)		t-values df=198
	Mean	S.D	Mean	S.D	
Internet Addiction	84.18	8.85	85.47	5.25	1.27
Suicidal Ideation	62.08	19.31	62.80	19.14	.265
Depression	27.80	7.07	29.19	6.29	1.46*

***p<0.05 level of significance; **p<0.01 level of significance**

The findings of the above table reveal the fact that significant mean difference was found only in case of depression but in case of other interacting variables namely, internet addiction and suicidal ideation no such differences were found out. In case of internet addiction female group possess higher magnitudinal trend than male ones but considering suicidal ideation it can be commented that both groups are positioned at the same point.

Table 4 represents the Co-efficient of correlation between Internet Addiction and Depression in case of male group

	N=100 df=98
Co-efficient of correlation Internet addiction and Depression	.099

***p<0.05 level of significance; **p<0.01 level of significance**

The above table represents that in case of male group no significant correlation was found out between Internet addiction and Depression

Table 5 represents the Co-efficient of correlation between Internet Addiction and Suicidal Ideation in case of male group

	N=100 df=98
Co-efficient of correlation Internet addiction and Suicidal Ideation	.057

***p<0.05 level of significance; **p<0.01 level of significance**

The above table represents that in case of male group no significant correlation was found out between Internet addiction and Suicidal Ideation

Table 6 represents the Co-efficient of correlation between depression and suicidal ideation in case of male group

	N=100 df=98
Co-efficient of correlation depression and suicidal ideation	.764**

***p<0.05 level of significance **p<0.01 level of significance**

The above table represents that in case of male group significant high positive correlation was found in case of depression, and suicidal ideation which indicates with increased rate of depression, suicidal thoughts also increases

Table 7 Co-efficient of correlation between Internet Addiction and Depression in case of female group

	N=100 df=98
Co-efficient of correlation between Internet Addiction and Depression	.363**

***p<0.05 level of significance **p<0.01 level of significance**

The above table represents that in case of female group a significant low positive correlation was found out between Internet Addiction and Depression. Increment in the use of internet addiction also results in increased amount of depression

Table 8 Co-efficient of correlation between Internet Addiction and Suicidal Ideation in case of female group

	N=100 df=98
Co-efficient of correlation between Internet Addiction and Suicidal Ideation	.117

***p<0.05 level of significance **p<0.01 level of significance**

The above table represents that in case of female group no significant correlation was found between Internet Addiction and Suicidal Ideation

Table 9 Co-efficient of correlation between depression and suicidal ideation in case of female group

	N=100 df=98
Co-efficient of correlation between depression and suicidal ideation	.764**

***p<0.05 level of significance **p<0.01 level of significance**

The above table represents that in case of female group significant high positive correlation was found in case of depression and suicidal ideation which indicates that the increment in the amount of both variables are in same direction.

4. DISCUSSION:

The total set of data was explained considering descriptive statistics of mean and standard deviations of all the selected groups of samples. The significant differences and the relationship between the variables were obtained from t-test and co-efficient of correlation in many instances of the selected variables of the present study.

4.1 Internet Addiction:

Analysis of result indicates slight magnitudinal difference with respect to internet addiction between male (Mean=84.18; S.D=8.85) and female (Mean=85.48; S.D=5.25) college students. Inferential statistics pinpoints the fact that no significant mean difference was found between the two groups.

Different literature reveals diversified findings regarding this issue. Ono and Zavodny (2003) have analyzed that women involved more in online activities than men. This may happen due to several factors. Not only that, some differences between genders in certain areas of cognition may occur due to internet use (Halpern, 1996). In another study Weiser (2000) commented that that men use the internet basically for entertainment and leisure related purposes, whereas

for women use it mostly for interpersonal communication and educational support. Frangos, Frangos (2009) in their study found that men were more involved in usage of internet than women. Zeynep (2012) informed totally reversed findings from his study. He said that, the rate of internet addiction usage among women is higher than men.

In the present study magnitudinal data implies that the differences between the genders are not a remarkable one, so both of them are positioned mostly at similar point and whatever the difference may be contributed to their individual nature of usage.

4.2 Suicidal Ideation:

Analysis of result of mean difference indicates that from the view point of suicidal ideation male (Mean=62.08 and S.D=19.31) and female (Mean=62.80 and S.D=19.14) both groups are positioned at the similar point.

Literature suggests that addiction was found as important threat factor for suicidal behavior (Sue, Sue, Sue, & Sue, 2013), allied with hopelessness and depression (Arria et al., 2009). Internet addiction can be seen as an important danger area as it has been reported repeatedly among college students in current scenario. Suicidal ideation is found to be more prevalent in internet addicted persons (Kim et al., 2006). Similarly, a well-built positive connection was found out between suicidal ideation, depression and internet addiction (Ryu, Choi, Seo, & Nam, 2004). Some studies have also exposed that depression and suicidal ideation are not only associated but also through their symptoms too (Fu, Chan, Wong, & Yip, 2010). Studies by Ibrahim, Amit, Che Din, and Ong (2017) revealed that suicidal ideation was elevated among male participants compared with female one. Age was the forecaster of suicidal ideation for males, while depression and loss of motivation, as components of hopelessness, were the leading factors of suicidal ideation among females. Delfabbro et. al. (2013) and Canetto & Sakinofsky (1998) have reported gender differences in suicide behaviors with an overrepresentation of females reporting suicidal ideation and exhibiting nonfatal suicidal behavior than males.

In this present scenario both male and female college students are positioned at similar point from the perspective of suicidal ideation. Considering the scoring pattern it was found that the cut of point of the ASIQ was 75 and the mean

values for both genders are below from that level. So, for the present sample suicidal ideation was not found to be a significant factor that can make a difference between the two genders. The minute difference may be attributable to their individual pattern of thought process.

4.3 Depression:

Result analysis pinpoints the fact that significant mean difference was found out between both groups with respect to the above mentioned interacting variable, namely depression. Magnitudinal trend indicates that female group (Mean=29.19 and S.D=6.29) possesses higher scores than male subsamples (Mean=27.80 and S.D=7.07).

Several studies have surveyed the relationship among the Internet addiction and psychological characteristics of the adolescents' including depression. According to them some emotional factors may be related to college students' internet addiction (Kandell, 1998), among which depression is the remarkable one. Internet addiction and depression are bi-directionally related, as opposed to a directive one. Young students suffering from depression showing more proneness towards internet (Morrison and Goore, 2010 & Cotton, 2004) and vice versa, those involved in unwarranted use of the internet are more liable to be depressed (Akin and Iskender, 2011; Rabadi, et. al, 2017 & Sharma, Bharati, De Sousa, Shah, 2016).

In this present venture, female students acquired the highest position in this respective dimension. Literature suggests that gender differences exist in the causal root of development of depression, and these differences are especially profound during adolescence. The development of depressive emotions occur more for female students than in male students, and the magnitude of depressive emotions tends to be more severe in females than in males (Hankin and Abramson, 2001). The high degree of depressive emotions has been exposed to have a strong connection with Internet addiction, may sometimes contributing to negative or dysfunctional social behaviors (Whang, Lee, and Chang, 2003). In search of the reasons of such findings researchers have argued that individuals use internet as a mode to escape from the reality and higher depressive tone results in aloof and distant social interaction, which ultimately leads pursue satisfying interpersonal interactions online (Kardefelt-Winther, 2014).

Co-efficient of correlation for Male Students:

4.4 Relation between Internet addiction and Depression for Male Group:

The coefficient of correlation between internet addiction and depression for male group is .099. The findings indicate a positive correlation though not significant was revealed between the two interacting variables. Literature suggests that college students show an association between Internet addiction and depression (Ko, et. al.2014). Another study by Tsitsika, Critselis, Louizou, et al (2011) has also reported the similar findings. People addicted to the internet reinstate real world, compassionate relationships with virtual, online interaction and this impacts their mental well-being and mental health.

4.5 Relation between Internet addiction and Suicidal Ideation for Male Group:

Here also positive correlation was found out between the two interacting variables and the value is .057. Internet-addicted persons are found to have more suicide ideation (Kim et al., 2006). Literature also suggests similar findings that a positive correlation was found between internet addiction and suicidal ideation (Ryu, Choi, Seo, & Nam, 2004). Here, similar line of findings though not significant was revealed. Suicide risk equally higher in the college students addicted to internet (Kurt, 2015).

4.6 Relation between Suicidal ideation and Depression for Male Group:

The coefficient of correlation between suicidal ideation and depression in case of male group is .764. The findings indicate that a significantly high positive correlation was found out between the two interacting variables. Rationale pinpoints the fact that due to the adverse effect of social media if depression increases then the other interacting variable will also increase in positive direction. Young (1998) reported that the vast majority of Internet addicts have a tendency of suicidal thoughts and suffers from depression. The time they spent in internet eventually increase their level of depression and sometimes invite suicidal thought (Young, 1998). Here also similar findings have been pointed out.

Co-efficient of correlation for Female Students:

4.7 Relation between Internet addiction and Depression for Female Group:

Statistical analysis indicates a low positive significant correlation between these two interacting variables (.363). Survey of literature indicates that females with

internet addiction have proneness towards developing depressive tone (Lodha, 2018). The outcome of the current study also show similar pattern with the mentioned literature.

4.8 Relation between Internet addiction and Suicidal Ideation for Female Group

Similar statistical findings though not significant were also found in case of correlation between internet addiction and suicidal ideation (.117). Same rationale that was already mentioned in the male section (4.6) was responsible for such findings.

4.9 Relation between Suicidal ideation and Depression in case of Female Group:

The coefficient of correlation between suicidal ideation and depression is .764. As similar significant magnitudinal relationship was found out so, it can be commented that same analytical explanations (that have already been mentioned in the section of male group) are also responsible for such findings.

5. CONCLUSION:

The present study depicts that college students have a strong craving for internet, sometimes they use it for escaping from the real world. Gender wise no difference was found in case of internet addiction and suicidal ideation but relationship pattern depicts that internet addiction and suicidal ideation have a association with each other. Strong positive relation was found in case of suicidal ideation and depression and also gender differences were found in case of depression also. The sample used here was a small one and on the basis of such sample such comments cannot be applied to a larger population so further studies needs to be done in this arena

6. LIMITATIONS:

There can be no study without any limitation. The present study is also not an exceptional. The limitations of present study are:

- The sample size is very small.
- Data was collected only from Kolkata area, which is not representative of all male and female college population

• More variable such as stress, adjustment, Psychological well-being, personality, happiness, if added with the present study then the result will be discussed with more strong evidence.

• A number of questionnaires were used in this study. However, questionnaires may invite falsification and faking behaviour on the part of the subject.

7. SUGGESTIONS FOR FURTHER RESEARCH:

• Large sample size would yield a better data and would be representative of the male and female college population.

• Similar study of college student can be compared with the school students to see if level of maturity has any effect on Internet Addiction

REFERENCES:

Abasse, M. L. F. et al. 2009. Análise epidemiológica da morbimortalidade por suicídio entre adolescentes em Minas Gerais, Brasil. Ciência & Saúde Coletiva, *Rio de Janeiro*, 14(2)

Ahmad, N. and S.M. Cheong and N. Ibrahim and A. Rosman. 2014. 'Suicidal ideation among Malaysian adolescents', *Asia Pacific Journal of Public Health*. 26:635–695

Akin, A. and M. Iskender. 2011. 'Internet addiction and depression, anxiety and stress', *International Online Journal of Educational Sciences*; 3(1):138-48.

American Psychiatric Association 1994. *Diagnostic and statistical manual of mental disorders*. 4. Washington, DC: Author

Amiel, T. and S.L Sargent. 2004. 'Individual differences in Internet usage motives'. *Computer in Human Behaviour*; (20): 711-726. doi : 10.1016/ j.chb.2004.09.002

Arria, A. M. and K. E. O'Grady and K. M. Caldeira and K. B. Vincent and H. C. Wilcox and E. D. Wish. 2009. Suicide ideation among college students: A multivariate analysis. Archives of Suicide Research, 13(3): 230–246. doi:10.1080/13811110903044351

Beck, A. T. and R. Steer. 1987. *Manual for the Beck Depression Inventory*. San Antonio, Tex: Psychological Corporation.

Beck, A. T. 1996: *Psychometric Properties of the Beck Depression Inventory-II in Low-Income*, African American Suicide Attempters

Beck, AT. and RA. Steer and GK. Brown. 1996: *BDI-II: Beck Depression Inventory Manual. 2nd edition*. San Antonio, TX: Psychological Corporation

Canetto, SS. and I. Sakinofsky. 1998. The gender paradox in suicide. *Suicide Life Threat Behaviour* 28:1–23

Cao, X.-L. and B.-L. Zhong and Y.-T. Xiang and G.S. Ungvari and K.Y. Lai and H.F. Chiu, and E.D. Caine. 2015. 'Prevalence of suicidal ideation and suicide attempts in the general population of China: A meta-analysis'. *International Journal of Psychiatry Medicine*, 49: 296–308

Christakis, N. A. and J. H. Fowler. 2010. 'Social Network Sensors for Early Detection of Contagious Outbreaks'. *Journal of PLOS ONE*, 5(9): e12948.

Cotton AH. 2004. Ensnaring webs and nets: ethical issues in Internet-based research. *Contemporary Nurse* ;16(1- 2):114-23

Dahlstrom, E. and T. Boor De and P. Grunwald &

M. Vockley. 2011. '*ECAR national study of students and information technology in higher education, 2011 (ECAR report)*'. Retrieved from the EDUCUASE Center for Applied Research web site: https://net.educause.edu/ir/ library/pdf/ERS1103/ERS1103W.pdf

Delfabbro PH and HR. Winefield and AH. Winefield 2013. 'Life-time and current suicide-ideation in Australian secondary school students: Socio-demographic, health and psychological predictors'. *Journal of Affective Disorder*; 151:514–24.

Diagnostic and Statistical Manual of Mental Disorders 2013. *Diagnostic and Statistical Manual of Mental Disorders.* Arlington: American Psychiatric Association, 5th edition.

Fish R. A. and M. J. Hogan and T. G. Morrison and I. Stewart and B. E. McGuire. 2013. 'Willing and able: a closer look at pain willingness and activity engagement on the chronic pain acceptance questionnaire (CPAQ-8)'. *Journal of Pain and symptom management*, 14: 233–245. 10.1016/j.jpain.2012.11.004

Frangos, C.C. and C.C. Frangos. 2009. 'Internet Dependence in College Students from Greece', *European Psychiatry*, 24: S419

Frank E. and RF Prien and RB. Jarrett, et al. 1991. Conceptualization and rationale for consensus definitions of terms in major depressive disorder: remission, recovery, relapse, and recurrence. *Archives of General Psychiatry*, 48: 851–855

Fu, K. W. and W. S. Chan and P. W. Wong and P. S. Yip. 2010. 'Internet addiction: Prevalence, Discriminant validity and correlates among adolescents in Hong Kong'. *The British Journal of Psychiatry,* 196(6): 486–492

Gierveld, J. 1998. 'The De Jong Gierveld short scales for emotional and social loneliness: tested on data from 7 countries in the UN generations and gender surveys'. *European Journal of Aging,* 7(2): 121-130

Goldberg, D. P. and V. E. Hiller. 1979. 'A scaled version of general health questionnaire'. *Psychological Medicine,* 9:139-146.

Goldberg, H. and P. William. 1988. The User's Guide to the General Health Questionnaire. *Psychological Medicine.* Winsor: NFER-Nelson Publishing Co.

Goldberg, I. 1995. *IAD, in Cinti M. E. (a cura di) Internet Addiction Disorder un fenomeno sociale in espansione* (pp.6-7).

Greenfield, D.N. 2000. Psychological characteristics of compulsive internet use: a preliminary analysis. *Cyber Psychology & Behavior*; 5:403–412

Grusser, S.M. and R. Thalemann and MD. Griffiths. 2007. 'Excessive computer game playing: evidence for addiction and aggression.' *Cyber-psychology Behaviour*,10(2):290-292

Halpern DF. 1996. 'Changing data, changing minds: What the data on cognitive sex differences tell us and what we hear'. *Learning and Individual Differences*. 8(1):73-82.

Hamade, S.N. 2013. 'Perception and use of social networking sites among university students', *Library Review*, 62 (6/7): 388-397

Hankin, B. L. and L. Y. Abramson. 2001. Development of gender differences in depression: An elaborated cognitive vulnerability–transactional stress theory. *Psychological Bulletin, 127*(6): 773–796.

Ibrahim, N. and N, Amit and MWY. Suen. 2014. Psychological factors as predictors of suicidal ideation among adolescents in Malaysia. *PLoS One*; 9(10):e110670.

Joiner TE. 2005. *Why people die by suicide*. Cambridge, MA: Harvard University Press

Junco, R. and J. Mastrodicasa, 2007. '*Connecting to the next generation: What higher education professionals need to know about today's students*'. Washington, DC, NASPA

Junco, R. and G. A. Cole-Avent 2008. 'An Introduction to Technologies Commonly Used by College Students'. *New Directions for Student Services*, (124): 3-17

Junco, R. 2011. 'The relationship between frequency of Face book use, participation in Face book activities and student engagement'. *Computers & Education*, 58(1): 162–171

Kandell, J. J. 1998. Internet addiction on campus: The vulnerability of college students. *Cyber Psychology & Behavior*, 1: 11–17.

Kardefelt-Winther, D. 2014. A conceptual and methodological critique of internet addiction research: towards a model of compensatory internet use. *Computers in Human Behavior*, 31:351-354. ISSN 0747-5632

Khan, M. 2010. '*Political Settlements and the Governance of Growth-Enhancing Institutions*', SOAS, London: Unpublished Manuscripts,

Kim, K. and E. Ryu and M. Y. Chon. 2005. 'Internet addiction in Korean adolescents and it's relation to depression and suicidal ideation: A questionnaire survey'. *International journal of Nursing Studies*; 34(2): 185-19

Kim, K. and E. Ryu, and M. Y. Chon. and E. J. Yeun. and S. Y. Choi and J. S. Seo and B. W. Nam. 2006. Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: A questionnaire survey. *International Journal of Nursing Studies,* 43(2): 185–192.

Ko, CH. and TL. Liu and PW. Wang and CS. Chen and CF Yen and JY. Yen. 2014. The exacerbation of depression, hostility, and social anxiety in the course of Internet addiction among adolescents: a prospective study. *Comparative Psychiatry*. 55: 1377-84

Kurt, DG. 2015. Suicide risk in college students: The effects of internet addiction and drug use. *Kuram Ve Uygulamada Egitim Bilimleri*, 15: 841-848

Lodha, P. 2018. Internet Addiction, Depression, Anxiety and Stress among Indian Youth. *Indian Journal of Mental Health*; 5(4):427-442

Maqableh, M. and L. Rajab and W. Quteshat and R. Masa'deh and T. Khatib and H. Karajeh. 2015. The Impact of Social Media Networks Websites Usage on Students' Academic Performance. Communications and Network, 7:158-171. doi: 10.4236/cn.2015.74015

Matthew, P. 2016. 'Social media and loneliness: Why an Instagram picture may be worth more than a thousand Twitter words'. *Computers in Human Behavior,* 62:155-167

Michael, G. 1999. Evaluation and Treatment of Patients with Suicidal Ideation. *American Family Physician*, 59(6): 1500-1506

https://www.aafp.org/afp/1999/0315/p1500.html retrieved 15 March1999

Morrison CM, and H. Gore. 2010. The relationship between excessive Internet use and depression: a questionnaire-based study of 1,319 young people and adults. *Psychopathology,* 2; 43(2):121-126.

Nie, N. and L. Erbring. 2008. 'Debating the social effects of the internet: Connecting with the world'. *Public Perspective*; 11(3): 42-43

Ono, H. and M. Zavodny. 2003. Gender and the internet. *Social Science Quarterly*, 84(1): 111-121

Pontes, H. M. and D. J. Kuss and M.D. Griffiths. *2015*. 'The *impact* of *Internet-based specific activities* on the perceptions of Internet *addiction*, *quality* of *life*, and *excessive usage*: A *cross-sectional study*'. *Addictive Behaviors Reports*, 1: 19–25.

Rabadi, L. and M. Ajlouni, and S. Masannat and S. Bataineh and G. Batarseh, and A. Yessin. 2017. The Relationship between Depression and Internet Addiction among University Students in Jordan. *Journal of Addiction Research and Therapy*; 8:6-11-18.

Reynolds, W. M. 1991. *Adult Suicidal Ideation Questionnaire. Professional Manual*. Odessa, FL: Psychological Assessment Resources Inc.

Russell, D. and L. A. Peplau, and M. L. Ferguson. 1978. 'Developing a measure of loneliness'. *Journal of Personality Assessment*, 42: 290-294

Ryu, E. J. and K. S. Choi and J. S. Seo. and B. W. Nam. 2004. The relationships of Internet addiction, depression, and suicidal ideation in adolescents. *Taehan Kanho Hakhoe Chi,* 34(1): 102–110

Sharma, P. and A. Bharati, and A. De Sousa, and N. Shah. 2016. 'Internet addiction and its association with psychopathology: a study in school children from Mumbai, India'. *Natural Journal Community Medicine*; 7(1):2-5.

Shaw, M. and D. W. Black. 2008. 'Internet Addiction: Definition, Assessment', *Epidemiology and Clinical Management*. CNS Drugs, 22: 353-365

Sue, D. and D. W. Sue and D. Sue and S. Sue. 2013. *Understanding abnormal behavior (10th edition.)*. Belmont, CA: Wadsworth/ Cengage Learning.

Tsitsika, A. and E. Critselis, and A. Louizou. et al. 2011. Determinants of Internet addiction among adolescents: a case-control study. *Science World Journal*; 11: 866-74.

Twenge, J. M. 2012. The Evidence for Generation Me and Against Generation We. *Emerging Adulthood*, 1(1): 11-16

Valkenburg, P. M. and J. Peter. 2007. 'Preadolescents' and adolescents' online communication and their closeness to friends'. *Developmental Psychology*, 43(2)

Weiser, E.B. 2000. 'Gender Differences in Internet Use Patterns and Internet Application Preferences: A Two-Sample Comparison', *Cyber Psychology & Behavior*, 3: 167-178.

Whang, LS. and S. Lee, and G. Chang. 2003. Internet over-users' psychological profiles: a behavior sampling analysis on Internet addiction. *Cyber psychology Behavoiur.*6(2):143–50

Wingert, P. and B. Kantrowitz, 2002 Oct. *Young and depressed*. Newsweek. 7:53–61

World Health Organization [WHO]. 2012. World suicide prevention day 2012. http://www.who.int/mediacentre/events/annual/world_suicide_prevention_day/en/ Accessed 16.6.2012

Yadav, P. and G. Banwari, and C. Parmar, and R. Maniar, 2013. Internet addiction and its correlates among high school students: A preliminary study from Ahmadabad, India. *Asian journal of Psychiatry*, 6(6):500–505

Yellowlees, P. M. and S. Marks. 2005. Problematic Internet use or internet addiction? *Computer in Human Behaviour*, 23 (2):1447-1453

Young, K.S. 1996. Psychology of computer use: XL. Addictive use of the internet. A case that breaks the stereotype. *Psychological Reports* 79:899–902

Young, K. S. and C. R. Rogers. 1998. The relationship between depression and internet addiction. *Cyber Psychology and Behavior,* 1(1): 25-28.

Zeynep, O. 2012. Gender differences in Internet Addiction and Tendency to Express Emotions, *Online Journal of Counseling & Education*, 1(4): 39-45

Cited from:

Majumder, S. 2018. *Impact of social media in relation with loneliness, suicidal ideation and depression among male and female college students*, Dissertation submitted to the Indira Gandhi National Open University (IGNOU), http://www.ignou.ac.in retrieved on 22nd August, 2018

Acknowledgement:

I express my gratitude to my student Smt. Sreeparna Majumder for her tireless effort and also I would like to thank to all the college students and college authority for giving their valuable time for data collection.

Bio-Profile of the Authors:

1. Assistant Professor, Department of Psychology, Bijoy Krishna Girls' College, Howrah
E-mail: srabonichatterjee2107@gmail.com, Mobile No: 91+ 9830454283
2. MA in Psychology

Mobile No: 91+7044973764, E-mail: sreeparnamajumder.sonta@gmail.com

Acknowledgement :

Kumkum Bhattacharya
Professor and Head, Department of Social Work
Visva-Bharati, Sriniketan
West Bengal 731236

R. Siva Prasad,
(Formerly Professor of Anthropology)
Presently,
Honorary Professor,
e-Learning Centre,
Aryabhatta Wing, C.R. Rao Building,
University of Hyderabad

Arunima Mukherjee
Former Head of the Department of Sanskrit and Teacher in Charge
Bijoy Krishna Goswami Girl's College, Howrah,
Guest lecturer in Sanskrit, Rabindra Bharati University

Pinak Tarafdar
Associate Professor
Department of Anthropology
University of North Bengal

Bishnupada Datta
Advocate, High Court, Calcutta,
Bar Association, Room No.2

Ranjana Banerjee
Associate Professor, Department of Education
Loretto College, Kolkata

Arabinda Chowdhury
Consultant Psychiatrist, Forward Thinking,
Birmingham, UK

Ishita Chatterjee
Head of the Department
Assistant Professor (Reader)
Department of Psychology,
Calcutta University

Asmita Basu
Assistant Professor
Army Institute of Management, Kolkata, India.

Moumita Dasgupta
Associate Professor, Department of Anthropology,
Dr. A. P. J. Abdul Kalam Government College,
New Town, Kolkata

Oindrila De
IES Unit, Institute of Economic Growth
University of Delhi (North Campus)

Maitrayee Chaudhuri
Professor
Centre for the Study of Social Systems
School of Social Sciences,
Jawaharlal Nehru University,
NewDelhi-110067, India

Sudeshna Lahiri
Associate Professor, Dept. of Education
Calcutta University
Educational Measurement & Evaluation

Chandramalli Sengupta
Associate Professor in Bengali
EIC Post Graduate Studies
Asutosh College
Kolkata :7000026

Pallab Sengupta
Former Vidyasagar Professor Rabindra Bharati University
Former President The Asiatic Society, Kolkata

Swati Sen Mandi
Former Senior Professor of Plant Biology, Bose Institute, Kolkata
Emeritus Medical Scientist, ICMER

Sanghamitra Lahiri
Associate Professor and Head (Retired),
Department of Political Science,
Lady Brabourne College, Kolkata.

Sutapa Mukhopadhyay
Associate Professor
Department of Anthropology, Calcutta University

Samir Kumar Das
Professor of Political Science
& Director
Institute of Foreign Policy Studies
University of Calcutta
Kolkata - 700 027

Siuli Jana
Associate Professor and Head (Retired)
Department of Economics,
Lady Brabourne College, Kolkata

Arup Mitra
Professor & Dean
Faculty of Economics (FE)
South Asian University,
Chankyapuri, New Delhi- 110021

Rupendra Kumar Chattopadhyay
Paresh Chandra Chatterjee Professor of History
Department of History, Presidency University
And Professor on lien department of Archaeology,
Calcutta University

Kankana Sengupta
Research Officer
Gender and History
University of Calcutta

Notes for Contributors

Contributions are invited for the Journal of Kolkata Society For Asian Studies. The papers submitted for consideration should not exceed 7000 words. It includes figures, charts, tables and references and excludes the abstract, key words and the bio-note of the author/s. Papers based on scientific study, review articles written in correct English and Bangla will be considered for publication.

Style Sheet

1. Manuscripts should be submitted in duplicate (hard copy) along with a soft copy. All correspondences regarding manuscripts should be submitted to:
The Editor, Kolkata Society for Asian Studies.
Postal Address: 3/25/1 R.K. Chatterjee Road, Kolkata-700042 Phone +91 9432490361
Email: kspublication1@gmail.com
Copy to: ksasianstudies@gmail.com
2. Manuscripts should be typed using a word-processing program like MS. Word with .doc/.rtf extension and also in pdf. format. Type the manuscript on one side of the paper. Leave double space between the lines, extra space between the sections and keep 1 inch (2.54 cm.) margins on all four sides of the paper.
3. Abstract should be provided before the article.
4. The number of Key Words should be up to 10.
5. The contributor's affiliations and his/her complete mailing address must be given at the end of the manuscript.
6. Endnotes should follow numerical order. Try to avoid footnotes.
7. As the journal will be mainly printed in Black, the authors are requested to make the charts, graphs and tables using Black and White combination only.
8. The references should be like:
i. Embedded references (Phillipson 1992: 144)
ii. Multiple references placed in alphabetical order '(Ellis 1994:10; Lenneberg 1967: 7; Pinker 1994:54)'
iii. Multiple references of the same author published in the same year arranged serially '(Pattanayak 2000a, 2000b)'

The detailed style of referencing follows:

a. Books:

Wirsing, G. 1972. Indian Experiment: Key to Asia's Future. Calcutta: Orient Longman. Liu, J. and H. A. Ross and D.P. Kelly. 2000. The Ethnographic Eye: An Interpretative Study of Education in China. New York : Falmer Press.

b. Articles in Edited Volumes:

Atkinson, J. M. 1987. Religions in Dialogue: The Construction of an Indonesian Minority Religion. In: R.S. Kipp and S. Rodgers (eds.), Indonesian Religions in Transition. pp. 171-86. Tucson:University of Arizona Press.

c. Articles in Journals:

Sonntag, S. K. 1996. 'The Political Saliency of Language in Bihar and Uttar Pradesh', Journal of Commonwealth & Comparative Politics, 34 (2): 1-18.

d. Edited and Translated Volumes: Zakaria, H. A. and H. A. Crouch (eds.). 1985. Military-Civilian Relations in South-East Asia. Singapore: Oxford University Press. Becker, C. 1923. Early History of the Catholic Missions in Northeast India (1598-1890), edited and translated by F. Leicht and S Karotemprel. 1989. Shillong: Vendrame.

e. Unpublished Works:

Kurasawa, A. I. 1988. 'Mobilization and Control: A Study of Social Change in Rural Java, 1942-1945.' (2 vols.) Unpublished Ph.D. dissertation. Ithaca: Cornell University.

Mullins, D. 2001. 'Land reform, poverty reduction and HIV/AIDS'. Paper presented at the Southern African Regional Poverty Network conference on Land Reform and Poverty Alleviation in the Region, Pretoria, 12-14, March.

f. Primary Source Citations:

The location of the archive (the name of the town/village/city) and the country must be mentioned. Materials from personal archive should contain the name and location of the collector. If an audio/ audiovisual material is being used, the date/time and location of the recordings should be specified.

g. Website Citation

http://en.mastersinleiden.nl/programmes/history-arts-and-culture-of-asia/en/introduction

(accessed/retrieved/updated on 5th May 2014)

8. Other specifications

i. Use double quotation marks where necessary. Single quotation marks should be used only for a quotation within a quotation.

ii. In the text, the words from a regional language other than English which appear in a commonly used dictionary must be italicized. Proper names from all the countries and terms like 'et al.', 'ibid.', 'vis-a-vis' etc. should be written in Roman alphabet.

iii. A stop should be used after abbreviations ('ed.','vol.' etc.), contractions ('Dr.', 'Prof.' etc.) and between initials (as in 'J.S. Karan'). Do not use a stop in a contraction in capital ('UNESCO', 'USA' etc.).

iv. In the text, the numbers from one to nine should be in words rather than figures. However, 10 and above can remain in figures. Use 'thousands' and 'millions', avoid 'crores' and 'lakhs'. Dates and page numbers should be in full forms (like '2002-2007' and 'pp.125-127').

v. Attach each figure and table on a separate sheet of paper at the end of the article and arrange them serially. The titles should be short and crisp.

vi. Figures, tables, charts, graphs or photographs reproduced from any other source must obtain Copyright permission before reproduction.

vi. Diacritical marks should be consistent.

9. Glosses and Translations of Examples:

1. Language specific examples must be provided in International Phonetic Alphabet (IPA) or in Roman alphabet.

2. Examples from various languages other than English should be translated. Some examples may require a translation along with a word-for-word or morpheme-by-morpheme gloss.

3. The translation and the gloss should be placed under the example with proper indentation and alignment (in case of word-for-word or morpheme-by-morpheme gloss).

4. The grammatical categories in a gloss must be abbreviated

For example,

a) adʒ ɔnek brʃiʈi hoyeʈʃhe.
today lot rain be-pr.pf.3rd
'Today there was heavy shower.'

b) boneder ʈʃhobi.

'Sisters' picture.'

5. The abbreviations must be given in a separate list.

The paper/s submitted for consideration should not have been published before or under consideration for publication, anywhere in any language. The work must be approved by its author and the co-authors and also by the authorities of the place where the research was done. If the paper is accepted for publication in the present journal, it must not be published anywhere in any language without the proper written consent of the copyright holder.

FOR PAPERS IN BANGLA:

The same style sheet should be followed for papers written in the Bangla language. Bangla font 'Abhra' is preferred.

Offprints: The first author of each paper will receive 10 offprints free of cost.

ALSO PUBLISHED

Suniti Kumar Chatterji Revisited
(With a Foreword from Dilip Coomer Ghose) 2015
Pub: Kolkata Society for Asian Studies and Gangchil.
ISBN: 978-93-84002-56-5

Sub-Regionalism And Connectivity : The BCIM Corridor
Editors : Anindya Jyoti Majumdar & Sudarshana Banerjee
November 2018
Pub : Kolkata Society for Asian Studies and Setu Publication
ISBN : 978-81-933898-9-8

Published by Kolkata Society for Asian Studies, Postal Address: 3/25/1 R.K. Chatterjee Road, Kolkata-700042,
Phone +91- 9432490361
Email:ksasianstudies@gmail.com
Kspublication1@gmail.com
Printed at : Som Publishing, 21, Kanai Dhar Lane, Kolkata 700012, Ph - 8697267510