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### **Editorial**

We are feeling pleasure in presenting volume XXIV June 2018 (12th Year) of Research Journal of Social & Life Sciences ISSN 0973-3914, UGC Sl. No. 1962, Journal No.40942, Impact Factor 3.112. This Journal has completed its 12 years journey. The eminent scholars, researchers and professors of various university and colleges of almost all provinces of India have contributed their valuable research papers for publishing in this journal for the last 12 years.

Today there is no such state in the country where its members are not found. Center for Research Studies is in constant touch with the higher education institutions located in all areas of the country. It caters to all standards of this level research journals and provides all related periodic information related to the subscribers. University Grant Commission New Delhi has included it in the list of approved journals.

At this time the need to get the elections at a time schedule of the Lok Sabha and State Legislative bodies in the country. After the implementation of the Constitution, the general elections have been held simultaneously in the country. This system has many benefits and the Government of India and the Election Commission should take constitutional steps in this direction. There are a growing number of inhuman cases and heinous crimes against girls child in Indian society at this time. The victim family and the Indian public are continuously demanding the death penalty for criminals who commit such heinous crimes. There are provisions for such cruel crimes in Indian Penal Code but it is demanded that the minimum punishment be death penalty or the sentence of the prison till last breath.

The discovery of the causes of suicides by farmers is necessary; it is necessary to understand that the government can solve those causes. By the way, many schemes of the farmers' interest are being run by the government at this time.

In the society and politics, many politicians have started using unskilled language at this time, which cannot be called justified. Things that should be discussed and debated within the Parliament and the Legislative Assembly, their discussions have started today in the field or in the rally in the street. The stalemate of parliamentary works is a burning question today. This is the reason that parliamentary sessions are now taking place for less days. The recent session of the Madhya Pradesh Legislative Assembly was only for 2 days, which is remarkable in parliamentary history.

Likewise, the politicians who are discharging their responsibilities in the legislatures are feeling some difficulty with the Judiciary. Proposal of no confidence motion against the Chief Justice of the Supreme Court is a vivid example of this.

So today the requirement is that there should be extensive research on

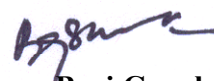
such vivid questions. Center for Research Studies will cooperate fully with researchers in such research works.

The University Grants Commission has recommended the seventh pay scale for teachers, librarians and sports officers. But most state governments have not yet given new pay scale. In fact, it is disgraceful for the teachers to take hold of the movement for the pay scale and to perform the movement. If the teacher is immersed in this concern then how will the quality of teaching and research be maintained, so that the state governments should take a serious meditation on this question. And soon after paying attention to the demands of the teachers, the revised pay scales as recommended by the University Grants Commission be given to them from January 01, 2016.

We are also happy to inform that in the 13th year it has been decided to publish this research journal quarterly. For this, the NISCAIR, Government of India has been requested for acceptance of this proposal. The first quarterly issue of September 2018 will come. In this way, the publication of Journals will now be in the Hindi and English languages in the months of March, June, September and December of each year.



**Professor Akhilesh Shukla**  
Editor



**Professor Braj Gopal**  
Chief Editor

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## **Growing Need for The Care of Elderly People in Society (With reference to Crimes 2014-16)**

**\* Akhilesh Shukla**

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**Abstract-** *Human resource is considered as an asset for a country. It plays an important role in economic development and growth. Greater the proportion of young persons in the population of a country, larger is the workforce, and, thus, more is the economic potential. India, in this sense, has got an advantage at present and is considered as a leading nation in the world in terms of human power. The huge young population is considered as its strength and it enhances its potential for faster growth. The global demographic trend, however, tells us that, with the passage of time, the countries have experienced ageing of population. The proportion of older persons in the population of a country has increased. Due to economic well-being, better health care system, good medicines, etc. there is substantial reduction in mortality in the society. Reduced mortality has led to reduction in fertility too. These factors together have resulted in increasing number of elderly persons in the population. This phenomenon, called population ageing, is a dynamic demographic trend all over the world. The population ageing, started in the last century with developed countries, is now encompassing developing countries too. India, by no means, is an exception to this phenomenon. Over the years, the structure of population has changed and will further change in the time to come. The proportion of older persons in the population will increase.*

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**Key words:** Human resource, Economic Development, Growth, Older persons

The number of the elderly in India is growing. There are an estimated 90 million older persons in India today. Life expectancy has increased from 40 years in 1951 to 64 years. Growth rate of elderly (3.09) is higher than that of the general population (1.9). At 60+, the proportion of widows (54%) is more than widowers (16%). This demographic transition has posed tremendous challenges for healthy ageing. As per 2001 Census, total population of Senior Citizens (60+ years) was 7.7 crore, of which population of males and females was 3.8 crore and 3.9 crore respectively. Senior Citizens

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\* Professor, Department of Sociology & Social Work Government Thakur Ranmat Singh Autonomous College, Rewa (Institute for Excellence in Higher Education) College with Potential for Excellence Accredited "A" Grade with 3.35 CGPA by NAAC



constituted 7.5% of the total population. Himachal Pradesh, Punjab, Uttarakhand, Haryana, Orissa, Maharashtra, Andhra Pradesh, Karnataka, Goa, Kerala, Tamil Nadu and Puducherry have more than the national average (7.5%) of proportion of Senior Citizens population.

As a result of the current ageing scenario, there is growing need for care of the older persons in terms of social, economic, health and shelter. Together with these issues, security of older persons in India is also emerging as an issue. With more old people living longer, the households are getting smaller and congested, causing stress in joint and extended families. Even where they are co-residing, marginalization, isolation and insecurity are felt among the older persons due to the generation gap and change in lifestyles. Increase in lifespan also results in chronic functional disabilities leading for a need for assistance required by the older person to manage simple chores as the activities of daily living. In the Indian context, the cultural values and the traditional practices emphasise that the elderly members of the family be treated with honour and respect. The families of the aged persons are expected to ensure the needed care and support for the aged. However, recent changes in the size and structure of families have caused the rearrangement of the roles and functions of the members in the families. The details of Elderly People in India are given in the following table.

#### **Elderly People- India, at a Glance: 2011**

<b>I Population</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
<b>Total Population (in millions)</b>			
Rural	427.8	406.0	833.8
Urban	195.5	181.6	377.1
<b>Total</b>	<b>623.3</b>	<b>587.6</b>	<b>1210.9</b>
<b>Population Aged 60+ (in millions)</b>			
Rural	36.0	37.3	73.3
Urban	15.1	15.5	30.6
<b>Total</b>	<b>51.1</b>	<b>52.8</b>	<b>103.9</b>
<b>Share of Elderly Population in Total Population (%)</b>			
Rural	8.4	9.2	8.8
Urban	7.7	8.5	8.1
<b>Total</b>	<b>8.2</b>	<b>9.0</b>	<b>8.6</b>
<b>II Economy</b>			
<b>Old-Age Dependency Ratio</b>			
Rural	14.5	15.8	15.1
Urban	11.8	13.1	12.4
<b>Total</b>	<b>13.6</b>	<b>14.9</b>	<b>14.2</b>
<b>Elderly Population Working (%)</b>			
Rural	66.4	28.4	47.1
Urban	46.1	11.3	28.5
<b>Total</b>	<b>60.4</b>	<b>23.4</b>	<b>41.6</b>
<b>III Health</b>			
<b>Life Expectancy 60+ (Years)</b>			
<b>Total</b>	16.9	19.0	17.9
<b>Death Rate (60-64years) (Per Thousand)</b>			
Rural	22.3	17.2	19.7

Urban	16.6	13.4	15.0
<b>Total</b>	<b>20.7</b>	<b>16.1</b>	<b>18.4</b>
<b>Physically Disabled Among 60+(Per Hundred Thousand)</b>			
Rural	5713	5476	5593
Urban	4361	4007	4181
<b>Total</b>	<b>5314</b>	<b>5045</b>	<b>5177</b>
<b>IV Education</b>			
<b>Literacy Rate 60+</b>			
Rural	50.5	18.4	34.2
Urban	79.6	52.7	66.0
<b>Total</b>	<b>59.1</b>	<b>28.5</b>	<b>43.5</b>
<b>Sources : Population Census 2011, SRS Report 2013</b>			

The above table indicates the following facts-

- According to Population Census 2011 there are nearly 104 million elderly persons (aged 60 years or above) in India; 53 million females and 51 million males.
- Both the share and size of elderly population is increasing over time. From 5.6% in 1961 the proportion has increased to 8.6% in 2011. For males it was marginally lower at 8.2%, while for females it was 9.0%. As regards rural and urban areas, 71% of elderly population resides in rural areas while 29 % is in urban areas.
- The sex ratio among elderly people was as high as 1028 in 1951, subsequently dropped and again reached up to 1033 in 2011.
- The life expectancy at birth during 2009-13 was 69.3 for females as against 65.8 years for males. At the age of 60 years average remaining length of life was found to be about 18 years (16.9 for males and 19.0 for females) and that at age 70 was less than 12 years (10.9 for males and 12.3 for females).
- The old-age dependency ratio climbed from 10.9% in 1961 to 14.2% in 2011 for India as a whole. For females and males, the value of the ratio was 14.9% and 13.6% in 2011.
- In rural areas, 66% of elderly men and 28% of elderly women were working, while in urban areas only 46% of elderly men and about 11% of elderly women were working.
- The percent of literates among elderly persons increased from 27% in 1991 to 44% in 2011. The literacy rates among elderly females (28%) is less than half of the literacy rate among elderly males (59%).
- Prevalence of heart diseases among elderly population was much higher in urban areas than in rural parts.
- Most common disability among the aged persons was locomotor disability and visual disability as per Census 2011.
- In the age-group of 60-64 years, 76% persons were married while 22% were widowed. Remaining 2% were either never married or divorced.

**Study Objectives:** Broadly, the specific objectives of the study are:

- To find out existence of elder abuse and crime and reasons for the same
- To assess the extent and nature of crime faced by the elderly
- To find out prevalence of elder abuse in lower socio economic strata and

Present it vis-à-vis 2010 study findings focusing on elder abuse in higher socio Economic strata) the broad information areas covered in the study include socio economic and demographic profile of the elderly, living arrangements, ownership of assets, types of abuse and their various facets, legal and psychological aspects of abuse, crime faced by the elderly and action taken etc Elder abuse (also called “elder mistreatment”, “senior abuse”, “abuse in later life”, “abuse of older adults”, “abuse of older women”, and “abuse of older men”) is “a single, or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person.” This definition has been adopted by the World Health Organization (WHO) from a definition put forward by Action on Elder Abuse in the UK. Laws protecting the elderly from abuse are similar to and related to, laws protecting dependent adults from abuse. It includes harms by people the older person knows, or has a relationship with, such as a spouse, partner or family member, a friend or neighbor, or people that the older person relies on for services. Many forms of elder abuse are recognized as types of domestic violence or family violence since they are committed by family members. Paid caregivers have also been known to prey on their elderly patients.

While there are a variety of circumstances considered as elder abuse, it does not include general criminal activity against older persons, such as home break-ins, “muggings” in the street or “distraction burglary”, where a stranger distracts an older person at the doorstep, while another person enters the property to steal. The abuse of elders by caregivers is a worldwide issue. In 2002, WHO brought international attention to the issue of elder abuse. Over the years, government agencies and community professional groups, worldwide, have specified elder abuse as a social problem. In 2006 the International Network for Prevention of Elder Abuse (INPEA) designated June 15 as World Elder Abuse Awareness Day (WEAAD) and an increasing number of events are held across the globe on this day to raise awareness of elder abuse, and highlight ways to challenge such abuse.

Nearly 40 per cent of crimes against senior citizens in the country between 2014 and 2016 were reported from two states of Maharashtra and Madhya Pradesh, government data shows. According to a home ministry statistics, the national capital was still among the top seven states in such crimes though it recorded a decline in 2016. As many as 7,419 cases of such crimes were registered in Maharashtra and Madhya Pradesh taken together in 2014, which is 39.64 per cent of the total 18,714 cases filed in the country

that year, the statistics show. In 2015, out of 20,532 cases of crimes against senior citizens across India, 39.04 per cent were filed in the two of the geographically largest states, a home ministry official said, quoting the statistics incorporated in the report 'Crimes in India'. The number of such cases further increased in Maharashtra and Madhya Pradesh in 2016 with 40.03 per cent of the total 21,410 cases in the country were registered there. A total of 8,571 cases of crimes against senior citizens were registered in the two states in 2016, an increase of more than 500 compared to 2015 when 8,017 cases were registered, it said. Individually, Maharashtra topped the list with 3,981, 4,561 and 4,694 cases in 2014, 2015 and 2016 respectively. The state accounted for more than one-fifth of the cases of crimes against elderly persons with 21.27 per cent of total cases in 2014, 22.21 per cent in 2015 and 21.92 per cent in 2016. Its neighbour, MP, followed it with 3,438, 3,456 and 3,877 cases in 2014, 2015 and 2016 respectively. Among all such cases in the country in 2014, 18.37 per cent cases were registered in MP, the statistics said. In 2015, 16.83 per cent of all the cases were registered in the central state while 18.10 per cent of all such cases filed the next year were in Madhya Pradesh. Tamil Nadu, Andhra Pradesh and Telangana followed Madhya Pradesh with most number of cases registered against senior citizens. In Delhi, 1,021 such cases were registered in 2014, 1,248 cases in 2015 and 685 cases in 2016. The cases in Delhi were 5.45 per cent of all such cases registered in 2014, 6.07 per cent of the total cases in 2015. The figure drastically decreased in 2016 with just 3.19 per cent of total cases registered being from Delhi. No cases of crime against senior citizens were registered in Jammu and Kashmir between 2014 and 2016, the data show. Uttarakhand and northeastern states of Assam, Arunachal Pradesh and Nagaland reported less than 10 such cases in the said three years.

#### Crime against Senior citizen (60 Years & above): 2014-16

S. No.	State/UT	2014	2015	2016	Percent-age State Share To All-India (2016)	Rank Based on Incidence/ % share (2016)	Mid-Year Projected Senior Citizen Population (in Lakhs) (2016)+	Rate of Total Cognizable Crimes (2016)++	Rank Based on Crime Rate (2016)
<b>STATES</b>									
1.	Andhra Pradesh	1852	2495	2243	10.5	4	48.3	46.4	4
2.	Arunachal Pradesh	4	7	2	0.0	30	0.6	3.1	25
3.	Assam	0	17	6	0.0	25	20.8	0.3	31
4.	Bihar	496	404	272	1.3	14	77.1	3.5	22
5.	Chhattisgarh	833	1077	902	4.2	6	20.0	45.0	5
6.	Goa	73	59	43	0.2	21	1.6	26.3	10
7.	Gujarat	372	195	496	2.3	12	47.9	10.4	18
8.	Haryana	310	195	496	2.3	12	47.9	10.4	18
9.	Himachal Pradesh	188	159	233	1.1	15	7.0	33.1	9
10.	Jammu & Kashmir	0	0	0	0.0	-	9.2	0.0	-

1.	Jharkhand	12	6	56	0.3	19	23.6	2.4	29
2.	Karnataka	642	742	818	3.8	7	57.9	14.1	14
3.	Kerala	758	551	571	2.7	11	41.9	13.6	15
4.	Madhya Pradesh	3438	3456	3877	18.1	2	57.1	67.9	2
5.	Maharashtra	3981	4561	4694	21.9	1	111.1	42.3	6
6.	Manipur	14	16	6	0.0	26	2.0	3.0	26
7.	Meghalaya	9	6	2	0.0	31	1.4	1.4	30
8.	Mizoram	7	6	15	0.1	23	0.7	21.9	11
9.	Nagaland	0	0	3	0.0	29	1.0	2.9	27
10.	Odisha	383	423	229	1.1	16	39.8	5.7	20
11.	Punjab	158	87	91	0.4	18	28.7	3.2	24
12.	Rajasthan	1034	685	652	3.0	9	51.1	12.8	17
13.	Sikkim	0	3	4	0.0	27	0.4	9.8	19
14.	Tamil Nadu	2121	1947	2895	13.5	3	75.1	38.5	8
15.	Telangana	422	1519	1382	6.5	5	34.4	40.1	7
16.	Tripura	6	12	10	0.0	24	2.9	3.5	23
17.	Uttar Pradesh	420	370	621	2.9	10	154.4	4.0	21
18.	Uttarakhand	1	5	1	0.0	32	9.0	0.1	32
19.	West Bengal	118	125	184	0.9	17	77.4	2.4	28
<b>TOTAL STATE(S)</b>		<b>17652</b>	<b>19239</b>	<b>20657</b>	<b>96.5</b>		<b>1024.6</b>	<b>20.2</b>	
<b>UNION TERRITORIES:</b>									
20.	A & N Islands	12	12	4	0.0	28	0.3	15.7	13
21.	Chandigarh	13	26	48	0.2	20	0.7	71.6	1
22.	D&N Haveli	0	0	0	0.0	-	0.1	0.0	-
23.	Daman & Diu	0	0	0	0.0	-	0.1	0.0	-
24.	Delhi UT	1021	1248	685	3.2	8	11.5	59.7	3
25.	Lakshadweep	0	0	0	0.0	-	0.1	0.0	-
26.	Puducherry	16	7	16	0.1	22	1.2	13.3	16
<b>TOTAL UT(S)</b>		<b>1062</b>	<b>1293</b>	<b>753</b>	<b>3.5</b>		<b>13.9</b>	<b>54.1</b>	
<b>TOTAL ALL INDIA</b>		<b>18714</b>	<b>20532</b>	<b>21410</b>	<b>100.0</b>		<b>1038.5</b>	<b>20.6</b>	
Note : i) + Population Source: Registrar General of India Actual Population Census 2011.									
ii) ++' Crime Rate is calculated as Crime per one lakh of population.									
iii) Rank is based on Incidence (Col.7) as well as on the Crime Rate (Col.10). Both should be considered simultaneously.									
iv) No ranking for States/UTs where figures are '0'.									
<b>Source- Crime in India 2016</b>									

- With 4,694 cases, Maharashtra topped the list of crimes against senior citizens across states in India for 2016, according to the data compiled by the National Crime Records Bureau (NCRB). Among all metropolitan cities, Mumbai saw the highest number of crimes (1,218) against the elderly.
- The statistics highlight the need for stricter measures to ensure safety of senior citizens. Maharashtra stood third in murders of the elderly. Of the 1,055 murders across the country last year, 188 were committed in Uttar Pradesh, 171 in Tamil Nadu and 169 in Maharashtra.
- The elderly in the city remained vulnerable with 108 – the highest number — of robberies in Mumbai.
- Delhi reported 91 robberies in 2016. While the number of murders was low (9) in Mumbai, 51 cases of grievous injuries were reported.
- “Preventing crimes against senior citizen was our top priority. Maintaining their database and of those interacting with them acted as a deterrent and helped in reducing crimes. The one-society one-cop system was unfortunately not institutionalized by the Maharashtra

police,” said Pratap Dighavkar, additional commissioner of police, Thane city.

- Dighavkar, during his tenure as DCP Zone IX in Mumbai, started the one-society one-cop system by assigning one policeman to ensure security of senior citizens of each society.
- He said senior citizens must keep numbers of local police stations and the contact numbers of local beat officers handy.

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#### References :

1. Cook-Daniels, L., (2003b, January/February). “2003 is the year elder abuse hits the international state.” *Victimization of the Elderly and Disabled*. 5, 65-66, 76.
2. Rinkler A.G. (2009). “Recognition and perception of elder abuse by prehospital and hospital-based care providers”. *Archives of Gerontology and Geriatrics*. 48: 110–115.
3. International Network for the Prevention of Elder Abuse[permanent dead link], accessed June 26, 2007.
4. <https://indianexpress.com/article/india/40-of-crimes-against-senior-citizens-in-2014-16-reported-from-maharashtra-madhya-pradesh-5102171/>
5. <https://www.hindustantimes.com>
6. <https://www.helpageindia.org/>
7. Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India, 2016

## Need to Protect the Rights of Forest Dwellers for Social Change- An Indian Paradigm

\* Md. Sultan Haidar Alam

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**Abstract-** *The natural imperativeness on protection of biodiversity and empowerment of customary laws plays a vital role to enrich pristine glory of tribes. As a corollary it is emphasized that extinction of local customs can thwart any attempt to restore sustainability in modern development paradigm. International and national laws and policies should, even though they do not promote, refrain from adversely affecting customary laws and practices. James D. Wolfensohn, former President of World Bank, insisted that "we need to learn from local communities to enrich the development process". From the above discussion following conclusions can be drawn, The gap as to remedy of grievances for constitutional and statutory framework prevalent as on today should be lessened to eliminate contradictory procedural arrangements of TFDs and others to mainstream their aspiration. The bonhomie of social reverberation resurrects with development enjoyed by people. The deprivation of rights by TFDs even in forests makes the society to lose glory of pristine customary principles abysmally. Individual rights against the community/customary rights are seeping the flavor today and people have started avoiding brunt of customary laws due to education, infrastructure etc. Protection is required to increase sex ratio, eliminate malnutrition and promote healthcare, education and concomitant aspects of inclusive growth for social, economic, cultural, educational, technological inclusion perspectives. Customary practices promote conservation of biodiversity thereby provide indirect protection to IK. SCs, STs, TFDs can enjoy their rights if they belabor the bureaucratic shackles and make an interface between so called formal non-formal laws. Customary laws, as discerned, should not be relegated to a position beneath judicial law and any constraint and vices like caste system, superstitions and unreasonable inequalities are to be shunned. Let us try to bridge this gap between suffering of tribal and marginalized people and sustainability since a tear long suppressed can turn their glitzy dreams in nightmares.*

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**Keywords:** Rights, Biodiversity, Empowerment, Customs, Sustainability

**1.1. Introduction:** India is a multicultural society with blended spirit of customary rights and norms stalwartly looking after the smooth social cohesiveness as bulwark to promote heritage protection whether it is in plain,

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forests, hills or rugged terrain. The social protection of people in variegated habitat smacks of specific legal articulation. Traditional forests dwellers (TFDs), pastoral tribes, adibasis etc. also deserve it and accordingly have been brought under legal framework in India being part of original affluent society as hunter-gatherers, aboriginal and indigenous people. The fundamental goal behind promotion of social, customary practices adopted by such community is to strengthen their multifaceted survival avenues. The anthropogenic sinister designs deracinating the entitlements of survival necessitate steep protection ostracizing myriad perilous depravities and tribulations.

Rivers, forests, minerals etc. constitute nation's plentiful elegant natural resources. They should not be frittered away and every entity owes a duty to conserve them in best possible way.

Sustainable use of natural resources is amply reflected in the customs of most local communities. For instance, Khasi community in Meghalaya, own grooves composed of oaks, and rhododendron trees which they venerate as sacred and allow none to feel them down except for cremation purpose. It indicates non-protection make their customary rights more shattered and such aspects are going to be assessed meticulously in this paper delving into the gaps.

### **2.1. Objective:**

The paper hence aims to put forth a logical assessment on the following objectives,

1. The need of enriching survival amenities, development of socio-economic avenues of TFDs diving deep into the frameworks as to rationality and
2. Regenerative strategy germane to customary prevalence and rights of TFDs and other forest dwelling tribes in India including NE.

### **3.1. Research Methodology:**

Research methodology is a process to draw conclusive findings logically, rationally and prudently investigating a subject. In this paper some aspects have been assessed doctrinally and empirically as to deplorable plight of downtrodden TFDs and other tribes residing inside or periphery of forest in India and NE hampering their socio-economic growth and development.

### **4.1. Literature Review:**

Long tenure of residence ensures heritage satisfaction. Literature review on aspects of TFDs on Universal declaration of Human rights, Constitution of India by M.P. Jain have emphasized on welfare of people pillared on effective protection of forest dwellers. So, by review insufficient mechanisms have been criticized for sculpting rational measures.

### **5.1. Contribution and concern of Forest Dwellers to society necessitating their protection:**

Indigenous TFDs and forest dwelling tribes residing in resource-rich



forest habitats maintain a close and interdependent relation with their surrounding environment with residual sanctity. Generally *terra nullius* or 'nobody's land' is conceptualized as to forestland in terms of use and disposition. The consequent symbiosis provides citadel of strong interface of knowledge which, when descends to generations across functions as paraphernalia to subsistence and conservation. This non-static, dynamic and interpenetrating assimilation protects and promotes their rights under statutory surveillance with dire necessity. The gravity of protection furthers serenity of environment, biodiversity, their conservation and hassle free survival.

In India forest department was established in 1864 and still occupying as the greatest landlord with 23% forest cover in India. But no land right has been accorded till 2006 which impeded the TFDs in growth perspectives.

The rights of TFDs etc. are community centric to promote distributed ownership of material resources to sub-serve common good<sup>1</sup> that makes people to repose faith in the theory of knowledge with dissemination/distribution of wealth too. So, both individual and community rights of TFDs are assessed under legal parameter to justify which one are susceptible for their survival. The need is to focus the level of exploitation and roadmap for their entitlement, living within or near to forests areas. The TFDs, different tribes etc. have knowledge on heritage culture, customs that glorified their existence plucking encomium on their distinguished features. Though customary laws/practices *per se* do not protect directly the indigenous knowledge (IK) but some of them tend to conserve biodiversity and in turn indirectly protect IK. It is unwise to assess IK myopically in isolation. Rather we should focus on natural resources, habitat of human beings and other allied factors fostering all-round growth and development sustainably.

The jurisprudence behind the progress and dynamism of society of TFDs and other communities smacks of potential change in forests for inclusive growth. The brunt of inclusive society with unprecedented growth in root amongst them inculcates vehement economic reverberation. The legal development which is not predetermined in a society but runs contemporarily focuses on dynamic jurisprudence rather than static one. People adopting dynamic one design their contents over which they relish the progress in society. The TFDs and other forest dwelling communities also require multifaceted ramification of dynamic jurisprudence so that they can trump over the situation. The doctrine of "trumping feature of rights"<sup>2</sup> as postulated by Ronald Dworkin feature on the development of their societies in forests rather negating economic development such areas for mining, tourism etc. Any mischievous action should be stalwartly protested with steward measure for rights of TFDs and others barring all crude transcendentalism.

So, mining, quarrying in forests areas and their leases inhabited by TFDs and others should be cancelled to safeguard the pristine ecology and human habitat.<sup>3</sup>

Over 80 million tribals, around 12% live in NE<sup>4</sup> region unevenly clustered and distributed in remote, rural and peripheral habitat with wide diversity and commonalities remaining mostly isolated from “mainland” India. Their inhabitation characterized by low agricultural potential and shifting cultivation<sup>5</sup> induces inadequate interactions of core society leading social cleavages that stonewall as hurdles for egalitarian society. This relative isolation from Indian political and cultural fabric breaks out tribal movements ranging from autonomy to independence with constitutional means or armed struggles. To safeguard the ethno-territorial identities such people conglomerate and invigorate unity to mainstream them for self respect. The government of India (GOI) under persistent pressure of the community agitation creates new territorial region in an effort to accommodate tribal aspirations<sup>6</sup> or extend them the 6<sup>th</sup> Schedule status.<sup>7</sup> Traditional unorganized life hardens the issue of marginalization of tribal society necessitating transition to organized way to reinstate identity anchored on the Indian socio-political milieu.

TFDs/Adibasis as aborigines have been suffering ill effects of social heterogeneity from Permanent Settlement Act, 1793 and Zamindari System which alienated their property and impoverished them. The trend continued till independence and some post independent laws brought down their decadent plight but their desire was fossilized due to non-implementation of status honing framework. Ultimately these obstacles aggravated their poverty, unemployment and scuttled coherence of life.

#### **6.1. Forest Rights Act, 2006, a special measure for forest dwellers :**

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, (FRA), is a special legislation to address the long standing insecurity of tenurial and access rights of forest dwelling STs and other TFDs. It remedies those who are forced to relocate their dwelling due to development. It secures inalienable rights of one whose right to life depends on right to forest.<sup>8</sup> It thereby strengthens and recognizes customary rights of forest dependent STs and Non-STs etc. It attempts to undo the “historical injustice” to tribals and TFDs with three generations tenure<sup>9</sup> and they have same rights like flora and fauna being *sine qua non* to forests. It resonates with conservation permanently staking to the dwelling of TFDs and STs in forests for generations symbiotically concerning the entire ecosystem.

Preamble of FRA vests the property of such land to TFDs signifying and playing dual policy of conserving their rights as well as invaluable resources of forests from encroachments and exploitation. FRA protects four kinds of rights viz. land rights or ownership rights,<sup>10</sup> community rights and user rights,<sup>11</sup> management and conservation rights<sup>12</sup> and finally traditional and customary rights.<sup>13</sup>

FRA protects a wide range of their rights to use forest land as a community forest resource and not restricted merely to property rights or to

areas of habitation. The GS with blended spirit of duty and power over forest management can preserve the habitat from any form of destructive practices affecting their cultural and natural concomitance.<sup>14</sup> The legislature intends to protect the customs, usage, practices, ceremonies, which are adopted by pastoralist communities and forest dwellers. Now the central role played by GS<sup>15</sup> under FRA reinforced by PESA is to safeguard and determine the nature of individual and community forest rights<sup>16</sup> as mentioned u/S 3 of FRA read with Section 4(d), PESA as per guidelines of Ministry of Tribal Affairs, GOI.

FRA contemplates that TFDs and forest dwelling STs should involve in sustainable development, conservation of biodiversity and maintenance of ecological balance as they have vast traditional knowledge. TFDs are now considered to be protectors and conservators of the forest and not the encroachers. FRA paves the way of sidelining the atrocities committed to them with horrendous consequences. FRA balanced between livelihood requirement and development harmony democratizing forest governance. Across the States, the TFDs and STs enjoy the rights in forests even in reserved and unclassified forests such as in Arunachal Pradesh.

FRA mandates prior permission of GS for construction of schools, hospitals, canals, electric and telecommunication lines etc.<sup>17</sup> for socio-economic development of TFDs etc. But sometimes withdrawal of consent on them are waived from GS defeats the object of FRA. FRA can achieve in implementation in conjunction with Panchayat (Extension to Scheduled Areas) Act, 1996.<sup>18</sup> Forest rights may be recognized, restored and vested to STs and TFDs for reviving the community livelihood and food security etc.<sup>19</sup>

FRA deals with tribal welfare, planning, policy formulation for socio-economic status of TFDs etc. with forest governance and as such this trendsetting law may eradicate the vices.

### **7.1. Customary rights and their protection under contemporary legal framework in India:**

The rights TFDs and their protection are needed to be focused on the bedrock of survival of themselves in particular and other living creatures in forests in general. The hereditary human abode resonates with forest lives engaging in protecting each other covertly and overtly. If TFDs are unprotected then forests habitats become threatened. Their survival promotes the survival of flora and fauna reciprocally in a jurally correlated way.

Customary rights deriving force under customs are to be analyzed under jurisprudential parameter whether they are source of law or form a constituent of Indian legal system. They are non-State legal system that parallels the substantive and procedural functions of legislations emerging from within the community commanding social acceptance and observance. So, TFDs and STs having such customs in derogation of laws are to be construed strictly<sup>20</sup> because of hierarchical vulnerability though Constitution recognizes them.<sup>21</sup> So, when a law is enacted due importance to customary laws and rights are to

be given to obliterate apprehension of sudden emanation of ruckus and hurdles in their observance.

#### **7.1.1. Protection under different Statutory Framework:**

The Evidence Act, 1872, though recognizes implication of customary laws but then Supreme Court very recently denied the customary right of fishing in Dhimars of Parshioni.<sup>22</sup> Indian Easement Act, 1882 also speaks about certain rights to use land for certain classes of persons or portions of the public based on customs called as customary easements.<sup>23</sup>

The rights over forest were regulated by Forest Act, 1864, by empowering government to declare any land covered with trees or brushwood as government forest and amending in 1878, National Forest Policy, 1894 further restricted the rights of forest dwellers. Indian Forests Act, 1927 (IFA) was enacted to use forest as revenue yielding sector. The free access enjoyed by local communities was suspended bestowing only privileged rights.<sup>24</sup> Using this principle large tracts of forest land were handed over by British to forest department. Customary rights, in short, of the people over forestland and produce were curtailed and transformed into concessions to be enjoyed at the will of the government.

The Forest Policy, 1952 maintained that for conservation of forest it was important to control the exploitation of minor forest produce and according Forest Conservation Act, 1980(FCA) came into force. IFA supplemented by FCA further riddled the status of forest dwelling communities rather protecting forests ignoring rights of TFDs.

The Wildlife Protection Act, 1972 also curtailed their rights which gradually evoked mass voicing against spate of dislocation of TFDs and STs.

The concept of *eminent domain* originating from Land Acquisition Act, 1894 empowered the government to acquire any land for public purpose. This was criticized because of taking away traditional rights of tribal people over land and natural resources. The rights of TFDs if affected by infrastructural development, communication, industries, mining operation, big dams etc. then mere monetary compensation cannot cobble the loss.

Recently enacted law “The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013” (LAA) deals with land acquisition in non-tribal areas with TFDs adequately compensating for land acquisition. Despite prolific compensatory measure the mischief caused to TFDs will not revive as it is difficult to regenerate lost glory of fragile habitat. Moreover, this Act prohibits acquisition of land in scheduled areas without consent of the local institutions of self-governance and GS and seeks to address the contentious issues of land right and livelihood.<sup>25</sup>

Management of a forest area can be assigned to a village community by the State government.<sup>26</sup> Once a forest area is transferred, the customary rights, over grazing, gathering minor forests produce become enjoyable rights

in such legally allotted area. Commutation of rights for much use of the forestland etc. is sanctioned by law.<sup>27</sup> The Forest Policy, 1988 focused on requirements of such communities but due to lack of recognition of customary practices and IK, the need became redundant.

### **7.1.2 Protection under Constitutional parameter:**

Constitution nowhere confers specific rights relating to indigenous TFDs for social and economic development. Their right to life does not merely refer to animal existence but life with human dignity.<sup>28</sup> So, they should not be displaced or disabled by actions robbing them of their customary rights with which they can live with dignity. The State may not by affirmative action be under a compulsion to provide for means of livelihood but any deprivation of such right may be pampered and propped under Article 21.<sup>29</sup> Supreme Court held that tribal people ousted from forestland residing for generations using jungles and collecting materials for livelihood are deprived of from their fundamental right.<sup>30</sup> The adequate endowment of rights to TFDs and STs can immunize them from exploitation and deprivation due to their illiteracy and ignorance.<sup>31</sup> Moreover, Part IVA imposes duty on the citizens to value and preserve the rich heritage of our composite culture,<sup>32</sup> to protect and improve the natural environment including forests, lakes, rivers<sup>33</sup> which are great reservoirs of IK from wealth honing perspectives.

Now, in any habitat of vast virgin valley and hills in NE these people want protection of their hereditary relics of forest dwellings to visualize their pristine culture signifying the ethos. The transition from yore culture to literary society is the urge of time and hence steep rise of demand to protect their rights should be upheld in all outlying spurs and ridges.

When we talk about tribal people, some constitutional provisions deserve mention dealing with administration of tribes, tribal areas etc.

Article 244 speaks for 5<sup>th</sup> and 6<sup>th</sup> Schedule of the Constitution and administration of Scheduled Areas<sup>34</sup> Scheduled Tribes and Tribal areas. Schedule Castes (SCs) and Scheduled Tribes (STs) are being categorically notified by President of India as enshrined in the Constitution.<sup>35</sup>

6<sup>th</sup> Schedule areas bar application of laws made by Parliament of State Legislature where Autonomous Council is authorized to make laws unlike non-6<sup>th</sup> Schedule areas. It is a major difference between such areas.<sup>36</sup>

Article 366(24) defines about Scheduled Castes read with Article 341.

Article 366(25) defines about Scheduled Tribes read with Article 342.

Article 371A speaks about laws enacted by Parliament not to be applied to Nagaland with respect to religious and social practices, customary laws, ownership and transfer of land and its resources, civil and criminal justice system etc. unless the State Assembly resolves to apply them. Article 371B speaks about laws to be made for tribal areas in Assam covered by 6<sup>th</sup> Schedule. Article 371C speaks about laws to be made for hills areas in Manipur covered by 6<sup>th</sup> Schedule. Article 371G speaks about laws enacted by Parliament not

to be applied to Mizoram with respect to religious and social practices, customary laws, ownership and transfer of land and its resources, civil and criminal justice system etc. unless the State Assembly resolves to apply them. Mizoram also falls under 6<sup>th</sup> Schedule area and henceforth protections from non-implementation of laws by Parliament as well as 6<sup>th</sup> Schedule administration are availed to uphold both customary and tribal rights of Naga People.

Article 372 protects pre-Constitution laws including customary, veritable and personal laws and they will continue to remain in force protected under Article 13(3) (a).

The Constitution, with turns and twist, upholds multifaceted social norms applicable to them.<sup>37</sup> After all, the brunt of modernization has marred and mangled the survival of TFDs/adibasis etc. alienating their inalienable rights entitled under Constitution.

Article 46 speaks about economic and educational interests of the SCs, STs, etc. to be protected by legislation. It indicates the TFDs and other tribes residing near to forest must be given cultivating, collecting forest produce rights to live a descent life with stable economic orientation. The GOI should not plan to provide administration with a handy means of suppressing organized public dissent especially by TFDS in establishing their rights.

Despite robust constitutional arrangements, the tribal voices are persistently demanding implementation of provisions of 6<sup>th</sup> Schedule to oust the procedural bottlenecks to strengthen the governance for TFDs.

### **8.1. Governance of the Tribal areas/Scheduled Areas populated by forest dwellers:**

The governance for the people of tribal/ scheduled areas needs a relook for strengthening and empowering them to revive and recognize customary rights. Article 40 of the Constitution speaks for organization of village Panchayats to establish local self governance by decentralizing powers to root level. Constitution also endows Gram Sabha (GS) to exercise powers and perform such functions as State legislature provides for.<sup>38</sup> The Panchayat (Extension to Scheduled Areas) Act, 1996, (PESA) enacted on the recommendation of Dilip Singh Bhuria Committee, acknowledged the competence of GS, the formal manifestation of governance of village community, to safeguard and preserve the traditions and customs of the people, their cultural identity, community resources and customary disputes resolutions.<sup>39</sup> Scheduled areas in mainland India were not covered by 73<sup>rd</sup> Amendment of Constitution, 1992 nor were Panchayati Raj Act extended there. Hence, for de-accession to forest, land, community resources and increased vulnerability, PESA was enacted as panacea in these areas.

Under PESA, GS enjoys superior position in the hierarchy of self-governance. PESA does not absolve States and their organs from the obligations towards TFDs rather they stand empowered, who were earlier

not recognized, in the form of GS to meet the challenges from within and without. PESA warrants that State shall ensure *inter alia* the endowment of Panchayats and GS for ownership of minor forest produce, power to prevent alienation of land in Scheduled Areas and to take action to restore any unlawfully alienated land of STs, power to manage village markets, control local plans and resources etc.<sup>40</sup> Under PESA if land is to be acquired for development purpose, it is mandatory to obtain consent from GS, who can prevent alienation of land. Decision of GS is sacrosanct and cannot be questioned in court.

The point of discussion is that how far GS as machinery of local self government (LSG) will be able to promote the welfare of forests dwellers and tribals as they fall in non-justiciable part of Constitution under Article 40 of Constitution. If PESA does not approve separate institutionalized administration then GS will become farcical. The inhabitants in forest areas or near to forest must be protected. Supreme Court categorically held in the light of Constituent Assembly Debate that framers of the Constitution intended, while drafting the 5<sup>th</sup> Schedule during 5<sup>th</sup>-7<sup>th</sup> September, 1949, the Adibasis should be protected from dispossession of their land and the President/Governor “may” act for their benefit should be read as “shall” to effectively prevent transfer of Adibasi land to non-Adibasis in Scheduled areas.<sup>41</sup>

For these reasons, it is self explanatory that PESA and 5<sup>th</sup> Schedule, which has not been applied till date, create counterproductive results that inconsistently prevents addressing issues of tribal rights. These propensities of failures justify serious debates on the existing endeavors. So, for social and political impacts of 5<sup>th</sup> Schedule, a closer examination is required to see whether the tribal people governed in forests areas virtually need protection or not. PESA, exclusively for 5<sup>th</sup> Schedule areas, intended to promote tribal self government both for majority tribal and minority non-tribal community. But its non-implementation denied the progress and self government of tribal and TFDs and protection of natural resources feeding them.

Prominent outcome of PESA is to remove dissonance between tribal self governance and modern legal institutions but till date it was unachieved with optimum potential. The decentralized governance suitable for legally pluralist India and NE region smacks of promoting indigenous folk laws governing different aspects of social avenues. Hemmed under the administration of 6<sup>th</sup> Schedule, a vital part of the Constitution, the scheduled areas and NE regions are comprehensively being protected against ethnic disturbances in tribal areas and exotic forces. President and incumbent Governor are immensely empowered to preserve, protect and defend the Constitution including above-stated special features, laws including the customs and usages of tribal people and TFDs.<sup>42</sup>

Whether community ownership of land rights are sustainable and provide more security to tribal/TFDs in place of individual pattadar is also to be seen

as there is a smooth transition to patriarchal society. The rights of TFDs and STs were in stake due to militating implementation of bunch of laws. Though FRA and PESA aimed ostensibly to recognize the rights of TFDs, STs and other tribal community but then many of them have already been evicted, displaced ignoring their rights without channelizing rehabilitation measures. Their survival was set on the mercy and lap of lower level forest officials who used to grill and exploit them.

### **9.1. Bottlenecks obstructing implementation of Legislative objectives:**

FRA applies to STs and TFDs only. STs in one State may not be recognized so in other State. Moreover, establishment of uninterrupted stay of 75 years of three generations (each generation for 25 years) may stand as bulwark to sustain right by forest dwelling communities. These anomalies erect hurdles to crystallize the rights of TFDs etc.

If FRA favours ST tribal over non-ST tribal then it will be a bolt from the blue to the latter violating Article 14 of Indian Constitution and its implementation shall encounter stumbling block. Rights under FRA are inheritable but not alienable which reflects *eminent domain* power of State diluting essence of TFDs rights.<sup>43</sup> FRA can still be effective legislation once supplemented by LAA to douse the simmering impacts of historical injustices caused to TFDs and others.

PESA prefers Panchayati Raj system which may be disliked by TFDs as they stick to traditional more often decentralized system. The GS under PESA may include non-tribal members who may likely to interfere with tribal communities overlooking the objects of FRA.

FRA coordinates with MoTA, Ministry of Environment, Forest and Climate Change and Department of Land Revenue, GOI, to work which also impedes the effective implementation of its objects. Because the interdepartmental conflicts, bureaucratic lethargy and communication gap stagnates its operation.

It is an irony that, still the unfettered rights of tribal as enjoying across generations, is under scanner and needs to be legally instrumented. The dichotomy of their development and protection of rights evokes conflicting argons. So, disentitlement, divestment and discrimination to their rights must be assessed to address the gap negotiating with procedural hurdles.

### **10.1. Conclusion:**

The natural imperativeness on protection of biodiversity and empowerment of customary laws plays a vital role to enrich pristine glory of tribes. As a corollary it is emphasized that extinction of local customs can thwart any attempt to restore sustainability in modern development paradigm. International and national laws and policies should, even though they do not promote, refrain from adversely affecting customary laws and practices. James D. Wolfensohn, former President of World Bank, insisted that “we need to learn from local communities to enrich the development process”. From the



above discussion following conclusions can be drawn,

1. The gap as to remedy of grievances for constitutional and statutory framework prevalent as on today should be lessened to eliminate contradictory procedural arrangements of TFDs and others to mainstream their aspiration.
2. The bonhomie of social reverberation resurrects with development enjoyed by people. The deprivation of rights by TFDs even in forests makes the society to lose glory of pristine customary principles abysmally. Individual rights against the community/customary rights are seeping the flavor today and people have started avoiding brunt of customary laws due to education, infrastructure etc.
3. Protection is required to increase sex ratio, eliminate malnutrition and promote healthcare, education and concomitant aspects of inclusive growth for social, economic, cultural, educational, technological inclusion perspectives.
4. Customary practices promote conservation of biodiversity thereby provide indirect protection to IK. SCs, STs, TFDs can enjoy their rights if they belabor the bureaucratic shackles and make an interface between so called formal non-formal laws.
5. Customary laws, as discerned, should not be relegated to a position beneath judicial law and any constraint and vices like caste system, superstitions and unreasonable inequalities are to be shunned.
6. Let us try to bridge this gap between suffering of tribal and marginalized people and sustainability since a tear long suppressed can turn their glitzy dreams in nightmares.

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**Footnote:**

1. Article 39(b) of the Constitution of India
2. West, Robin. L.(2010). *Rights, Harms and Duties: A Response to Justice for Hedgehogs*, 90, Washington: Georgetown University Law Center: B.U.L.Rev. Pp.819-837
3. *Kamal Singh vs. State*, AIR 1998 All 220; Shah, Justice M.B. &Dr. U.V. Singh. (2016). *Commentary on Law of Mines and Minerals Along with State Rules as Amended*, New Delhi: Whytes &Co., Vol-1, p.8
4. North East Frontier, the term first coined by Alexander Mackenzie denotes the then socio-cultural and economic status still flowing with rippling effervescence in the lap of nature; Alexander Mackenzie, 'History of the Government with the Hill Tribes of North-east Frontier of Bengal', Calcutta: Home Department Press, 1844, pp.1
5. 6th Schedule, Clause 3 (1)(d) of Indian Constitution
6. The West Bengal government granted the land rights to forest dwellers in the Gorkhaland Territorial Administration (GTA) under FRA vide Gazette notification on October 17, 2014; In *V. Sambasivam vs. Government of India*, AIR 2015 SC 39, Apex court vacated the stay order of Madras High Court barring the issue of certificate to TFDs and others.

7. Sixth Schedule status was granted to Assam, Meghalaya, Tripura, Mizoram
8. Under Section 3 of FRA the TFDs, STs can hold land in forest under community or individual ownership.
9. Section 2(o) of FRA
10. Land rights are acquired if the person cultivates the land as on December, 2005 having three generation cultivation by forest dwelling communities where each generation comprises of 25 years for ownership rights
11. It includes the rights of drinking water, collection of minor forest produce, grazing grounds, medicinal plants etc.
12. Conserving and managing the forest resources is primary duty of TFDs in conformity with Section 3 (1) (i) & (j) of FRA and Schedule 5 of Constitution of India
13. Rights of communities as access to bio-diversity and rights of intellectual property and traditional knowledge etc. are enjoyed by them.
14. Section 5 of FRA
15. Section 2(g) of FRA and 4© of PESA; Article 243A ; Preamble to Land Acquisition Act, 2013
16. Under Section 6 of PESA
17. Section 3(2) of FRA
18. Regional Consultations: The Ministry of Tribal Affairs (MoTA) organized a series of nationwide regional workshop under the MoTA- UNDP Joint Activity Plan from Sep-Nov, 2012, whereby representatives from department of Tribal Welfare, Forest, Revenue, Panchyati Raj, civil society, participated to develop a common understanding of FRA and its scope and objectives.
19. Section 4(1) (a) &(b) respectively of FRA
20. *Surajmani Stella Kujur vs. Durgacharan Hansdah*, AIR 2001 SC 938
21. Articles 372 & 13 (3)(a) of the Constitution of India
22. *Ramchandra Wahiwatdar vs. Narayan and others*, 2003 (7) SCALE 7; if fishing rights are considered to be customary rights then a “*wajib ul arz*” can be taken into account under the Evidence Act, 1872 by production of village administration paper or settlement records
23. Section 18 of the Easement Act, 1882
24. The 1927 Act conceptualized the appropriation of property by government
25. Preamble of Land Acquisition Act, 2013
26. Section 28, Indian Forest Act, 1927
27. Section 16, Indian Forest Act, 1927
28. Article 21 of the Constitution of India; *Francis Corallie vs. Union of India*, AIR 1981 SC 746
29. *Olga Tellis vs. Union of India*, AIR 1986 SC 180
30. In *Banwasi Sewa Ashram vs. State of Uttar Pradesh*, AIR 1987 SC 374, Supreme Court upheld the tribal rights and stopped the Rihand Thermal Project of NTPC from ousting them depriving right to livelihood etc.
31. Article 46 of the Constitution of India in Part IV as Directive Principles of State Policy (DPSP)
32. Article 51A(f) of the Constitution of India as Fundamental Duty
33. Article 51A (g) of the Constitution of India; *State of Tamil Nadu vs. Hind Stone & Others*, AIR 1981 SC 711
34. Part C of 5th Schedule of Indian Constitution
35. Article 366(24) speaks about SCs read with Article 341 and Article 366(25)

- says about STs read with Article 342
36. Indian Forest Act, 1927, Forest (Conservation) Act, 1980, and Wildlife Protection Act, 1972 applies only to reserved forests only in 6th Schedule areas but applied in *toto* to other non-6th Schedule areas
  37. Article 371A *inter alia* provides for religious and social practices, Naga customary laws, ownership and transfer of land and resources etc; moreover, Article 371G also provides ditto aspects to promote tribal social affairs covering those who live in forests
  38. Article 243A of the Constitution of India
  39. Section 4 (d) of PESA
  40. Section 4 (m)(vii) of PESA
  41. *Samatha s. State of Andhra Pradesh*, 1997 (8) SCC 191
  42. Para 2 & 3 of 5th Schedule and Articles 60 & 159 of the Constitution of India respectively; Jain, Prof. M.P. (2007). *Indian Constitutional Law*, Nagpur: Wadhwa and Company, 5th Ed., p. 1395
  43. Section 4 (4) of FRA

#### References :

1. Banwasi Sewa Ashram vs. State of Uttar Pradesh, AIR 1987 SC 374
2. Francis Corallie vs. Union of India, AIR 1981 SC 746
3. Jain, Prof. M.P. (2007). *Indian Constitutional Law*, Nagpur: Wadhwa and Company, 5<sup>th</sup> Ed.
4. Kamal Singh vs. State, AIR 1998 All 220
5. Olga Tellis vs. Union of India, AIR 1986 SC 180
6. Ramchandra Wahiwardar vs. Narayan and others, 2003 (7) SCALE 7
7. *Samatha s. State of Andhra Pradesh*, 1997 (8) SCC 191
8. Shah, Justice M.B. and Drr. U.V. Singh. (2016). *Commentary on Law of Mines and Minerals Along with State Rules, As Amended*. New Delhi: Whytes & Co., Vol-1
9. State of Tamil Nadu vs. Hind Stone & Others, AIR 1981 SC 711
10. Surajmani Stella Kujur vs. Durgacharan Hansdah, AIR 2001 SC 938
11. V. Sambasivam vs. Government of India, AIR 2015 SC 39
12. West, Robin. L. (2010). *Rights, Harms and Duties: A Response to Justice for Hedgehogs*, 90, Washington: Georgetown University Law Center, B.U.L.Rev.

## Preferential Treatment with a Reference to Social Justice

\* Biswajit Barman

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**Abstract-** *Men are the seekers of justice. The term 'justice' means what is just. Since men are social animals, men do need social justice. Justice is ensured with regard to equality. Equality is the hallmark of social justice. If it would be the case, then in what sense preferential treatment would be regarded as a means of social justice? The term 'preferential treatment' is a very sensitive concept. Many would say that preferential treatment appears as discrimination of justice. The strategy of this paper is to show in what sense preferential treatment would be treated not as means of discrimination of social justice, rather as viable means of social justice. The reservation system in India is a kind of preferential treatment. Besides reservation, there are various social schemes through which preference is given to a particular community, to a section of people so that their basic and fundamental human rights would be protected.*

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**Key words:** Justice, equality, preferential treatment, discrimination, human rights.

**Introduction:** The main objective of my paper is to examine arguments for and against preferential treatment as a means of social justice or as a justifiable means for promotional social justice. In fact, in recent times, the issue of preferential treatment (affirmative action) aroused many controversies in many countries all over the world. Indian is not an exception from this. In the past there we witnessed many social conflicts in India regarding the implementation of preferential treatment in terms of reservation.

But what then is preferential treatment? In what sense preferential treatment is supposed to be a form of social justice? The basic objective of preferential treatment is to compensate the victimized groups of the past for the injustices done to them. Accordingly, the policies and programs of preferential treatment are intended to neutralize the ongoing efforts resulting from the past discrimination. Thus, preferential treatment aims at to rectify disparities in the social, political, economic and cultural aspects of social life. What is social justice? Justice is a concept of moral rightness based on ethics, rationality, law, natural law, religion, equality or fairness, as well as the administration of the law, taking into account the inalienable and inborn rights

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of all human beings and citizens. Just thus ensures the right of all people and individuals. It provides equal protection before the law of their civil rights, without discrimination on the basis of race, gender, social orientation, gender identity, national origin, colour, ethnicity, religion, disability, age, or other characteristics, and is further regarded as being inclusive of social justice. Thus, it seems clear that the concept of justice is a complex one. Social justice in the form of preferential treatment implicates sacrificing certain rights of individuals for the sake of attaining social good or common good. Preferential treatment as an integral part of welfarism actually foresees promoting the welfare of the citizens, especially the poor, the needy, the neglected, the downtrodden and the victimized sections of the people in the society. Thus, it can be said that preferential treatment as a means of social justice actually hinges on the basis of two principles, such as, the principle of distributive justice and the principle of compensatory justice.

### **What is social discrimination?**

Social discrimination is a form of injustice which refers to an act of differentiating people on the basis of certain irrelevant factors in question, such as, caste, colour, or sex and accordingly treating them differently or unequally in the matters of social functions or treating them unjustly in the distribution of benefits and burdens of social life. India was a hub of social discrimination particularly on the basis of caste and sex. According to Ambedkar, the caste based concept actually gave rise to social maladies like untouchability. Indeed untouchability as a social curse actually poses a serious threat to the mankind in general. Instead of uniting the people of India, it actually creates divisions among Indians. Vivekananda says, "There is no chance for the welfare of the world unless the condition of women is improved. It is not possible for a bird to fly on only one wing."<sup>1</sup> According to Vivekananda no country in the world has attained greatness without paying proper respect to women. That country and that nation which do not respect women have never become great. The problem in India is that it does not respect the living images of Sakti. Even Manu says, "Where women are respected, there the gods delight." "There is no hope for that family or country where there is no estimation of women, where they live in sadness."<sup>2</sup>

The problem with social discrimination is that it has no rational and scientific grounds. Even social discrimination cannot be modified by implementing laws. Discrimination related to caste is purely a kind of religious dogmas and it cannot be modified by implementing constitutional laws. The division of caste is the outcome of the religious dogma of Hinduism. Sexual discrimination has no scientific ground. Even Vivekananda says that in the highest level, i.e. in *Atman* or *Parabrahman*, there is no sex discrimination. A soul is neither a male nor a female. Accordingly, it can be said that discrimination of people on the consideration of irreverent factors in question such as, caste, colour, creed, race or sex and accordingly treating different

people differently is morally wrong. It actually violates moral rules and principles.

### **Nature and Scope of Preferential Treatment:**

The practice of favoring or compensating the victimized groups of the past is described in different phrases as – preferential treatment or affirmative action or what is called reverse discrimination. It has been criticized by saying that preferential treatment is a form of reverse discrimination that has been paid in terms of compensation. However, such reverse discrimination against certain groups in the past and its ongoing effects in the present can be addressed in two different ways:

- (i) The first course of action is to stop discrimination against these groups and then treat them equally with other members of the society.
- (ii) The second course of action is to go further and offer preferential treatment to the victimized groups, for a fixed period, in order to resolve the fragmentary effects resulting from past discrimination.

We think that preferential treatment is particularly relevant to the second course of action. If preferential treatment is understood as a reverse discrimination or a compensatory measure, then of course, it asserts special preference to those victims which had been victimized in the past. It is true to say that those who had been victimized in the past are presently occupying the disadvantageous position and it would be very difficult for them to compete with others who have not been victimized. Therefore, any attempt to stop discrimination and then treat them equally with other would not be a prudent justifiable means.

What then would happen if preferential treatment will not offer to those who had been victimized in the past? Because of social discrimination in terms of caste, creed over the years there created a social and economic disparity among the people. If preferential treatment in terms of reverse discrimination is not implemented, then the disparity as has been created on the basis of past discrimination will remain in the society. If this so happens and on the basis of theory of justice if everyone treats equally, then those who had been discriminated would fail to compete to those who had not been discriminated. Nagal says, “Compensatory measures in admissions or appointment can be defended on grounds of justice only to the extent that they compensate for specific disadvantages which have themselves been unjustly caused. Compensatory discrimination need not be seriously unjust, and it may be warranted not by justice but by consideration of social utility.”<sup>3</sup>

### **Arguments for and against of preferential treatment :**

There are various parameters or positions on the basis of which preferential treatment as witnessing in India at present can be evaluated. These are:

- (i) It is unconstitutional because it violates rights protected in Indian Constitution.

- (ii) It is legally recognized by Indian Constitution but it violates a person's moral rights.
- (iii) It is legally recognised by Indian Constitution but it is a morally appalling idea because **the costs outweigh the benefits**.
- (iv) It is legally permitted by Indian Constitution and it is morally a good idea because **the benefits outweigh the costs**.
- (v) It is legally permitted by Indian Constitution and it is morally obligatory because **social justice requires it**.

Out of these five positions, there involves a serious dichotomy in (i). Of course, the preferential treatment, I think, has been implemented according to the provisions of Indian Constitution (already pre-existed or modified in course of time). Now, it is a general perception that the relevance of Constitution of any government or state whatsoever is to ensure the rights of the people. India as **a secular democratic country** has emphasised a lot on the Constitutional Provisions for securing the fundamental rights of the people of India. Thus, prima-facially there seems a dilemma in adopting (i). I think (ii) is very relevant in the context of this paper. Preferential treatment is an affirmative compensation arising from the initiatives of the Government of the state. The same happens in India as well. However, those who disagree with preferential treatment would like to say that it would violate persons' moral rights. (ii) Leads to (iii), because it cannot be supported even from consequential perspective where the outcome of a moral action is judged in terms of its consequence. (iv) is a reverse interpretation of (iii) as it has been accorded with the constitution and also stands at par with the consequential approach where the outcome of a moral action is judged in terms of consequence. (IV) leads to (v) because it stands with the entwinement of Constitutional provisions, moral rights and social justice. Thus, out of these five positions, (i), (ii) and (iii) stand, to me, in favour of anti-preferential treatment and (iv) and (v) actually stand in favour of preferential treatment.

I think those who favour preferential treatment abundantly rely on (v). Why is it so? Because it relies on social justice or social justice requires it. According to this position, preferential treatment is morally and ethically obligatory owing to rectify past discrimination or unfairness. However, those who deny preferential treatment would like to say that preferential treatment in terms of compensation is undeniably still to pay to those who were discriminated against in the past by those who did discriminate. However, in India the ground reality is somehow different because the settlement of preferential treatment actually benefits those who themselves have not been victims of discrimination. It does not even promote those who have, in fact, suffered from discrimination in the past as has been suggested. In fact, it is a general perception of the young generation of India that compensation in terms of preferential treatment actually troubles those who have not been and are not at present, perpetrators of discrimination. In brief, it has been claimed by

saying that preferential treatment in terms of compensation actually fails to harm those who did discriminate in the past in India. Moreover, it has been criticised by saying that the programs associating with preferential treatment are both *over-inclusive* and *under-inclusive*. It has been criticised as **over-inclusive** because it incorporates those people who perhaps should not be included under preferential treatment. It has equally been criticised as **under-inclusive** as it has been failed to include those who should be included. Therefore, if preferential treatment is at all relevance in India, then definitely the objective of such treatment has not yet been fulfilled since independence as due to some reasons the benefits and burdens are not well distributed as it ought to be the case.

Preferential treatment is the way to restore fair competition, a 'level playing field' by giving minorities a head-start. It is a kind constitutional block before the privileged so that they cannot rob the minimum opportunities available for the unprivileged. In India, preferential treatment is being given to Scheduled castes, scheduled tribes, other backward classes, physically handicapped persons and women in different forms. Take for example, in case of National Eligibility Test (NET) conducted by UGC, preferential treatment has been given to the candidates belonging to SC, ST, and OBC by fixing lesser percentage of marks as qualifying marks. The same happens in other entrances as well. What then will happen if such preferential treatment has been ruled out to those sections of people? Definitely, hardly a few candidates would be qualified and in most cases it would be nil. Even after more than 70 years of independence of India where preferential treatment has been the course of action, the representative of many backward communities in India is almost nil in many prestigious jobs. At least, statistic suggests that in most of the prestigious jobs, the representatives of the majority of people of India are very low in terms of percentage. If preferential treatment would not be implementing over the years then it would be nil in most prestigious jobs. Therefore, preferential treatment is a must as it will bring economic success to groups who need them most. Even at times the benefits of preferential treatment outweigh the costs. Preferential treatment is also needed for other practices, such as, vigorous recruitment, inducements, and improvements in welfare. Thus, the proponents of preferential treatment would consider it as '**affirmative action**' in the form of social justice.

The opponents of preferential treatment, however, suggest that the cost of preferential treatment *actually overshadowed the benefits or consequences*. Preferential treatment, they suggest, has harmful consequences as well. It increases tension between groups in society. In India we witnessed so many social conflicts in the past arising out of preferential treatment.

**Concluding Remarks:** I can draw the following observations

- (i) Preferential treatment was there in the past and it is being implemented at present and it should be there in the future as well.



- (ii) Preferential treatment can be defended from the principles of justice. The second part of Rawls second principle of justice actually favours preferential treatment.
- (iii) Preferential treatment in fact does not rob the basic needs of the affluent, rather it protect the basic needs of the downtrodden people.
- (iv) I do not think that preferential treatment is a form of compensation; rather to me preferential treatment is a means of welfarism on the basis of which people who have nothing to lose can be benefited out of this.
- (v) Preferential treatment must be flexible, relative and in course of time it should be re-examined.
- (vi) Preferential treatment is not a right; rather it is a form of justice, social justice so to speak, on the basis of which one can protect their human rights.

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### Footnotes

1. Swami Vivekananda, (1993). *My India, The India Eternal*, Ramakrishna Mission Institute of Culture, Kolkatta, p.69
2. .Ibid.p. 71.
3. James Rechels, (1981). "What People Deserve", in John Arthur (ed.) *Morality and Moral Controversies*, New Jersey, Prentice-Hall, p. 348.

## **Married women in teaching profession and their problems relating to professional life: a case study of Greater Guwahati**

**\* Moni Monjuri Phukan**

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**Abstract-** *The status of women has undergone a tremendous change from mere helpers to men folks as wives to men's partners and co- workers in different walks of life. This is because their education and employment has led to a social change of their roles in their family as potential earners when the need arises. Nowadays there is hardly any occupation which is not practiced by women in the employment field. With the advent of mechanization in the industry, the hard physical labor is not required for every job and so women can compete with men in every job. In our country, teaching is found to be best profession for married women. In this profession they can adjust themselves with their house hold work and professional work so that the two don't conflict with each other. Moreover, women as teachers can contribute a great deal in the development of child's behavior. Women by birth acquire certain qualities which are not found in case of men. For moulding the character of children during the most impressionable years of infancy the contribution of women is of greater importance than that of men. But there are so many problems of married women teachers because teaching isn't only confined with imparting daily lessons to children. Besides this, teachers have to perform many duties. It is therefore very difficult for married women to make harmonious relationship with her school work and house hold chores.*

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**Keywords:**Co-workers, potential, mechanization ,moulding ,infancy, harmonious, chores.

**Introduction:** The participation of women in labor force has been increased since independence. This increasing trend of women's labor force participation is considered as economic indicators since it helps to reduce the unemployment rate, poverty and increases the overall standard of living. Similarly, as part of women's labor force participation, women's involvement in teaching profession is beneficial to the country as both male and female teachers have the positive impact of the diversity of the nation. In India, a large number of educated women are working as teachers in both primary, secondary and Higher education sectors. The current statistics for India in 2017 showed that the number of women in teaching profession imbalance the number of males.

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Indeed to say that a huge numbers of women teachers are playing an important role in the educational development of the country. However, although women's participation in the teaching profession is contributing to economic and social development of the country, they are facing a number of difficulties in managing family as well as their professional life. Since the occupation of teaching demands a high level of performance, the teachers must accept personal responsibility for their own performance, growth and development. Therefore teaching is considered one of the highest stress occupations, especially for the women who need to deal with both work and family. Moreover the increasing trend of women's participation in teaching profession poses challenges in families. One of these challenges concerns in balancing their role between family and job responsibility that is faced by many women teachers. Women are more naturally disposed towards nurture than men, based on the traditional gender roles found in Indian societies that place women within the domestic domain as caregivers. From this belief, women teachers like to give priority family over career would interpret as a lack of commitment that will hinder their personal career goals. Instead, when women teachers are unable to minimize the balance of the commitment between work and family, it may contribute to Imbalance in personal as well as professional life.

**Statement of the problem:**

Married teachers had to sacrifice a lot for their profession besides looking after house hold chores, rearing up children, attending guests. Besides this, they also have to prepare their lesson for their daily class and attend schools. There are some teachers who come from an orthodox family and her husband and in laws don't like her working. In order to satisfy them she has to face a lot of problems hearing harsh words, which is a great mental torture for her. She can't leave her job because financially she is not well off and if she sacrifices her job the family might not run properly. Similar, the teachers coming from a joint family had to face a lot of difficulties in maintaining a large family and keeping abreast with her profession as a teacher. Moreover, there are mothers who have to leave their young children in the hands of the care taker (servants) and couldn't concentrate in her lessons since she has a tension of safe keeping of her ward. Similarly, some women do not have servants at home and therefore turn up late for school and has to give explanation to the principal. Besides this there are some women who couldn't attend to their children's need and as a result the children become indisciplined and she is blamed for everything. Dissatisfaction among teachers also arises from the heavy pressure of work upon them both in school and at home. The principal and the school authority hardly gives suggestion but expects high degree of efficiency from maladjustment of teachers. Keeping in view all the difficulties faced by a married women teacher the investigator felt a vital need to conduct a study and examine the existing issues and problems faced by a married women teacher in her family conditions and circumstances. .

The investigator would also try to know whether at present there is any mood of discontent and frustration among teachers. The study has therefore been entitled “*Married women in teaching profession and their problems relating to professional life: A case study of Greater Guwahati*”

### **Objectives of the study:**

1. To find out the major problems faced by women teachers regarding (a) Family (b) Child Rearing (c) Time.
2. To study the attitudes of the family members towards her profession as a teacher.
3. To study the level of personal satisfaction of married women teacher regarding their job.

### **Hypothesis:**

- H<sup>1</sup>** The attitudes of the family members towards her profession as a teacher is not satisfactory
- H<sup>2</sup>** The level of personal satisfaction of the married women teacher regarding their job is not satisfactory.

**Significance of the study:** Women’s increased participation in teaching profession influences them to play multiple roles in balancing work, housework and child care responsibilities. As a result they are facing a number of difficulties in managing family as well as their profession. There are a number of factors that influence women teachers challenges such as increased duties, demand on time, working more the normal working hours, family obligation, gender norms etc.

### **Terminology Used:**

- \* **Married women:** Home maker, woman of the house, a wife who manages a household looking after her children, her husband and her family members. A Married woman ,legally is the partner to a man whom she marries. She signifies having a husband and united in marriage.
- \* **Greater Guwahati:** Guwahati , the ancient city of pragjyotishpur is located at 20.16 North Latitude and 91.35 East Longitudes The city Guwahati is located on the southern bank of river Brahmaputra. The eastern boundary is demarcated by the vast plain lands with villages like Birkuchi NC, Kalitakuchi NC, Satgaon.
- \* **Professional Life:** A career in industrial or commercial or professional activities, business life, calling, career, vocation – the occupation for which one is trained.
- \* **Teaching Profession:** Teaching is a profession that is a mother of all other occupation. It is the noblest of all profession. A teacher is like a potter who delicately shapes our impressionable minds and molds it into a vessel that defines our perception and ambitions. Teachers have always been respected in all societies.

**Delimitation of the study:** The present study is delimited to the problems

faced by married women teachers of secondary schools in their professional life in Greater Guwahati

**Method used by the Researcher :**

The investigator has adopted survey method or more specifically normative survey method for the present study

**Sampling Design:** The investigator has used random sampling method for the present study.

**Tools:** For the present study, the investigator has used questionnaire and interview schedule as a data gathering tool.

**Analysis and interpretation of data:** The data collected for the present study have been analyzed and interpreted according to the objective in the following way.

**1. Objective No .1 :**

To find out the major problems faced by married women teachers regarding (a) Family (b) Child Rearing (c) Time

**Table -1(a): Problems faced by married women teachers in family.**

**N=100**

Problems	Percentage
1. Too much Authoritative Husband	9%
2. Difficulties in Child rearing	41%
3. Heavy pressure of house hold chores	33%
4. Indifferent attitudes of the family members	6%
5. Frequent visit of guests	4%
6. Lack of help from family members in house hold chores	3%
7. Other Reasons	4%
<b>Total</b>	<b>100%</b>

The above table reveals that 33% of the married women teachers faced problem in family due to heavy pressure of house hold chores; 41% of married women teacher faced difficulties in child rearing; 6% of women faced problems due to indifferent attitudes of the family members; 9% of the women faced problem due authoritative husband; 4% due to frequent visits of guests; 3% of women faces problems due to lack of help from family members in house hold chores.

**Table-1(b): Percentage of respondents that get help in their household activities from other members of the family**

Responses	Percentage of Respondent
1. Help them by other members of the family	89 %
2. Do not get help from other members of the family	11%
<b>Total</b>	<b>=100 %</b>

The above table reveals that 89% of the married women teachers get help from their family members in their household activities, whereas 11% of married women teachers receive no help from their family members.

**Table-1(c): Leisure time per day of a married working teacher.**

Number of hours	Percentage of Respondent
1. 1 Hour	54%
2. 2 Hour	33%
3. 3 Hour	13%
4. 5 Hour	0%
<b>Total</b>	<b>=100%</b>

The above table reveals that the maximum leisure times enjoyed by married women teachers are only 1 Hours.

**Table- 1(d): Opinion of the married working teachers towards leaving their children in the hands of servants.**

Responses	Percentage of Respondent
1. Learn bad words from servants	8%
2. Learn to behave in a bad manner before guests	16%
3. Children do not get proper attention	42%
4. Children become more reclusive & aggressive	25%
5. Children imbibe the qualities of the servants	9%
<b>Total</b>	<b>= 100 %</b>

The above table reveals that 42% of the children of the married women teachers do not get proper attention; 25% of children become more reclusive & aggressive; 8% of children imbibe the qualities of the servants; 16% of children learn to behave in a bad manner before guests and 8% of children learn bad words from servants when kept under the responsibility of the servants.

**Objective No .2 :** To study the attitudes of the family members towards her profession as a teacher

**Hypothesis :** The attitudes of the family members towards her profession as a teacher is not satisfactory

**Table- 2(a) : Family members attitude towards married working women profession as a teacher**

Responses	Percentage of respondent
1. Family members have positive attitude	47%
2. Family members have negative attitude	53%
<b>Total</b>	<b>=100%</b>

The above table reveals that 53% of married working women family members have positive attitude towards her working as a teacher whereas 47% of married working women family members have negative attitude towards her working as a teacher.

**Objective No.3:** To study the level personal satisfaction of married women teacher regarding their job.

**Hypothesis:** The level of personal satisfaction of the married women teacher regarding their job is not satisfactory

**Table 3(a): Personal satisfaction of the married women teacher regarding their job**

Level of Personal Satisfaction	Percentage of satisfaction
1. Extremely satisfied	0%
2. Highly Satisfied	5%
3. Above Average Satisfied	18%
4. Average/Moderate satisfied	42%
5. Below Average Satisfied	29%
6. Dissatisfaction	4%
7. Extremely Dissatisfaction	2%
<b>Total</b>	<b>= 100%</b>

The above table reveals that 5% of the married women teacher are highly satisfied in their job ;18% are Above Average Satisfied; 42% are Average/Moderate satisfied ;29% are Below Average Satisfied and lastly 4% of the married women teacher are found to be dissatisfied regarding their job.

**Table 3(b): Reason for not satisfied in job by the married working teachers.**

Reason for not satisfied in job	Percentage
1. Poor Salary	17%
2. Lack of support from family	20%
3. Child rearing problems	35%
4. Heavy Work Pressure	24%
5. Other reasons	4%
<b>Total</b>	<b>= 100%</b>

The above table reveals that 35% of the married women teachers are not satisfied with their job because of child rearing problems ; 17% due to poor salary; 24% due to heavy work pressure at school ;20% due to lack of family support and 4% due to some other reasons.

**Major Findings of the Study :**

1. The study reveals that 33% of the married women teachers faced problem in family due to heavy pressure of house hold chores; 41% of married women teacher faced difficulties in child rearing; 6% of women faced problems due to indifferent attitudes of the family members; 9% of the women faced problem due authoritative husband; 4% due to frequent visits of guests; 3% of women faces problems due to lack of help from family members in house hold chores.
2. The study reveals that 89% of the married women teachers get help from their family members in their household activities, whereas 11% of married women teachers receive no help from their family members.
3. The study reveals that the maximum leisure times enjoyed by married women teachers are only 1 Hours.
4. The study reveals that 42% of the children of the married women teachers do not get proper attention; 25% of children become more reclusive & aggressive; 8% of children imbibe the qualities of the

servants; 16% of children learn to behave in a bad manner before guests and 8% of children learn bad words from servants when kept under the responsibility of the servants.

5. The study reveals that 53% of married working women family members have positive attitude towards her working as a teacher whereas 47% of married working women family members have negative attitude towards her working as a teacher.
6. The study reveals 5% of the married women teacher are highly satisfied in their job ;18% are Above Average Satisfied; 42% are Average/Moderate satisfied; 29% are Below Average Satisfied and lastly 4% of the married women teacher are found to be dissatisfied regarding their job.
7. The study reveals that 35% of the married women teachers are not satisfied with their job because of child rearing problems ; 17% due to poor salary; 24% due to heavy work pressure at school ;20% due to lack of family support and 4% due to some other reasons.
8. It is also found that due to unavailability of leisure time, imbalance of work, family and social life, 47% women teachers are suffering from psychological stress.
9. It is also found that 46% of the married women teachers are blamed for her children's indiscipline due to her inability to attend to the need of the child.

#### **Suggestion:**

1. There should be provision for off periods for teachers in the school time table.
2. There should be provision for providing a day off to the teachers in the school time table.
3. The school should have separate room for crèche so that the married women teachers can keep their wards there during her duty hours at school and look after them.
4. Like men, women should be given opportunity to join in the school so that they can utilize their education profitably
5. The school authority should reduce the burden of the married women teachers so that women career does not conflict with house hold duties.
6. The school authority should increase the number of teachers and classes should be distributed among them properly .if it is done then every teacher will get some relief from the class work activity.
7. The inequality in relation between the wife and the husband is the root cause of family tensions where both the husband and wife are equally educated and employed. The solution of this would be that husbands should treat wives with equality and then they would find considerable happiness in the family life.
8. Many married women teachers have the guilt that they could not devote



enough time to their small children. Part time jobs in schools will be great solution in this respect.

9. The family members should be very supportive towards the working women and should always extend their help in the house hold activities.
10. The finding faults in the work of the daughter- in -law by mother- in -law is the expected behavior in the joint families. Therefore the mother-in- law should be amiable and loving towards the daughter-in-law and should treat her with love.
11. Married women who belong from a traditional joint family find greater difficulty in maintaining their family well. In order to reduce family tensions of employed women the joint family system must be changed to nuclear family pattern.

**Conclusions:** The purpose of the study was to discover how married women teachers impact on family happiness and the challenges faced by them in balancing their role between family and job responsibility. The study found that employment of women in economic activity has several beneficial impacts of improving the economic condition of the family. The results also indicated that majority of married women teachers encounter a number of difficulties in balancing their role between family and job responsibility especially when they need to work more than the normal working time. The amount of time they spend away from their young children and family can be considered as one factor that influences family conflicts. Moreover, it is common for majority of women teachers suffering from psychological stress when they are unable to complete a task at a fixed time. Given the importance and demands of women's participation in the teaching profession, the study suggest the implication of family friendly policy and its practice that supports the involvement of the teaching profession as well as the overall development of the community.

#### References :

1. Acker. S., *Teachers, Gender and Careers*, New York: The Flamer Press, 1989
2. Bhatt, D.J., *Job Stress, Job involvement and job satisfaction of teachers : A correlation study Indian journal of Psychometry and Education* .Vol. 28(2), 87-94 (IEA Vol. 1, January 2001) 1997
3. Devi, M.T., *Women status in Assam*. Journal of Business Management and Social Science Research (Vol2, no1), 2013.
4. Hota, Sujata., *Working women's perception of their self and environment in relation to their self and environment in relation to job and life situation*. Ph.d., Edu: Kurukshetra University, 1990
5. Kaul, Lokesh., *Methodology of Educational Research*, New Delhi :Vikash Publishing House Pvt Ltd, 1997
6. Katamma, K., *Status of Women in relation to Education, Employment and Marriage*, Mphil. Adult Education: Sri Venkateswara University, 1990
7. S. P. Naik, "*Education for the twenty first century*". New Delhi: Anmol publications, 2008

8. Sultana. A. M., Norhirdawati., Zahir., M., Yaacob.H. Norzalan., *Women in Teaching Profession: Impacts and Challenges*, World Academy of Science, Engineering and Technology International Journal of Humanities and Social Sciences .Vol:8, No:6 Pp.1695-1696. 2014

## **The Contributions of American Baptist Missionaries to Garo Society: Some insights**

**\* Amellina G. Momin**

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**Abstract-** *The Christian Missionaries in Garo Hill in particular and North East India in general represented not only a new religion but also a new way of life. Their methods of propagation through institutional works in the fields of education, health and charity were far more pragmatic, efficient and better organized than those of the existing religious institutions of the tribes. The advent of Christian Missionaries to Garo Hills of the erstwhile parts of Assam was one of new forces which gave a powerful push to the wheel of social change in North East India as whole.*

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**Keywords:** Christian Missionaries, Religion, Education, Charity

**Introduction:** It was a known fact that the British Officials were unable to administered Garo Hills due to the savage nature of the people. They were convinced that no better solution would be possible except calling for help from Christian Missionaries to deal and civilize them. On their invitation, the first Christian Mission centre was set up in 1826 at Singimari. The missionaries also set up a school to educate the Garo children. Again after twenty years ie in 1847, another School was established for Garos in Goalpara by Capt. Jenkins. Captain Jenkins was known as a pioneer of that institution, where future leaders like Omed, Ramke, Gongaram and Rangku were groomed for their Christian ministry. However, the process of spreading the gospel was very much slow. It was till April 14, 1867, that twenty six Garo men and women were converted and were baptized by Dr. Miles Bronson in the Rongkil Stream in Rajasimla, a Church was born. Incidentally it was the starting point of the activities of the missionaries among the Garos.

The major contributions of the American Baptist Missionaries towards the Garos of Meghalaya are discussed below:

**1. Roman Script:** Christian missions were made an instrument of change by the British authority. It is a fact that the Christian missions also benefitted in many ways due to their linkage with the British authority. The effort of the Missionaries to introduce education was recognized by the British as a policy of civilizing the hill tribes who were savage and very backward. The Christian Missionaries besides propagating their region, they also supported the cause of providing written scripts for the tribal communities in North East India.

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They were the pioneers in introducing modern education as well as ministering to the health of the tribes.

The American Baptist Missionaries were known as the pioneers in propagating Christianity to the nook and corner of Garo Hills. Education as well health care was also introduced by them side by side with religious activities. The arrival of American Baptist Missionaries like Rev. Philips and Mason in Tura, the District Headquarters of Garo Hills in 1874 was a turning point in the history of the Christian mission. These two missionaries brought a type writer and with this machine they began to publicize the use of the Roman script for the Garo language. In the beginning they printed a few primers and found visible interest in reading among the Garos. Nevertheless they realized that twenty one Roman letters were sufficient to represent the needed sound in the Garo language. Finally the American Baptist Missionaries introduced Roman alphabet to the Garo in 1893. This step had a far reaching benefit. First the Garos learned the art of reading and writing in a very easy way. No doubt the missionary had the intension that their people should be able to read the Holy Scripture. Through language and literature it had also enabled the people in breaking up isolation. It also opened up new perspectives of cross cultural communication and enabled the people to cope up with their new socio-economic and political situation.

**2. Education:** Another significant contribution made by the American Baptist Missionaries was in the field of education. The Missions set up educational institutions in various parts of Garo Hills including those villages which are predominantly inhabited by the Garos in the part of Assam adjoining Garo Hills. No doubt education goes side by side with religious activities. According to census of 1901, the literacy percentage was only 0.8% of the total population e.g. 1.5 males and 0.2 females. Primary Education is in the hands of Mission, had made considerable progress. There were no Secondary Schools, but in 1902-03, there were 3 Upper Primary and 86 lower Primary Schools. In 1934, High School was started in Garo Hills.

At the time when the missionaries came to Garo Hills, the people were not aware of any form of formal education. The missionaries took initiative by themselves and even visited villages and brought girls and boys to learn and study in mission schools and contributed all their expenses. Free- education was offered by the missionaries. The number of schools increased and scattered to almost all parts of Garo Hills. It is important to mention here that many schools set up by the missionaries often faced dearth of teachers and affected when the missionaries returned home. Though education in Garo Hills spread slowly but had been an instrument of change. It had brought awareness among the people that there should be an adjustment between modernity and tradition. Moreover education brought about political consciousness. For instance, the Garos under the leadership of Sonaram Sangma were fighting for the lost territories in Goalpara District.

**3. Written Literature:** As has been discussed above that prior to the coming of Missionaries, there was no formal education in Garo Hills. There was neither script nor any written books. In the beginning the missionaries could not provide any specific curriculum for teaching in their schools. However the first job that the missionaries did and practice was to learn the Garo language. After they were well verse with the language they started to introduce books for Garos in Roman scripts. At that juncture, books were mainly written and published by the Missionaries. The missionaries followed its own educational policy, decided to introduce religious instructions in all Schools. The Missionaries also introduced sewing and knitting for girls and crafts for boys. During the year 1849- 1874, a number of books for the lower primary schools as well as few religious literatures both in Roman and Bengali were published. Among the pioneers in Education and literature on the Garos include Dr. & Mrs. Keith (January 1872), Rev. & Mrs. E.G. Phillips (December 1974), Miss M. Russel (January 1879), Rev. C.E. Burdette (December, 1883), Miss E.G. Bond (January 1886), Miss Stella Mason (January 1886), Rev. & Mrs. Dring (December, 1890), Rev. & Mrs. S.A. D Boggs (February 1892), Miss A.J. Rood (December, 1894), Rev. & Mrs. L.E. Munger (November, 1896), Last Missionaries were Miss F.E. Wormser (March 1949) Miss L.L. Bate (May, 1965). She left in the year 1970.

From year 1867 to 1970, the American Baptist Missionaries have involved in Education and Literary works. As many as 29 missionaries were assigned to work not only in Garo Hills but they took some Garo Young men to be trained and educated in U.S. A. e.g. Rev. Tangkhan K. Sangma.

**4. Missionaries in the Medical and Health Services:** Like most tribes of North East India, the Garos too were very much ignorant and practically unacquainted with hygiene ways of living, proper dietary habits and medical care. They were superstitious and in case of any sickness they sacrificed birds or animals to god or goddess so that they will be cured. Sometimes they used plants and herbs as well. Most of the time, they attribute all sickness to evil spirit. With regard to health services, missionaries did not take upon as the primary function of the missionary cause but as an auxiliary in the propagation of faith. But with the passage of time it was felt the necessity to be involved in this great cause of giving medical service to the people. Some medical Missionaries like Dr. & Mrs. G.G. Crozier (1899), Dr. & Mrs. Ahlquish (1918) and Dr. & Mrs. E.S. Downs (1927) were deputed to start the medical mission in Garo Hills. They built the first Christian Hospital at Tura and a Dispensary at Nishangram. Some of the Lady Missionaries were trained Nurses. The Missionaries did not confined in one place only but moved throughout Garo Hills to extend their helping hands. They also opened the orphanage in Tura Christian Hospital to help the needy and poor.

**5. Change the Traditional Economic life of Garos:** Some of the Missionaries who really understood the economic problems faced but the

Garos, they pioneered horticulture. They brought seeds from America, Philippine, and Ceylon (Sri Lanka) tried in their gardens and distributed seeds to the local people. Among these were Mangoes, Guavas, Pomeloes, Peaches, Plums, Litchis, Pine-apples, Bananas, Oranges, Cotton and Papayas. They started printing press and trained Garos as typists. Dr. Mason dreamt of flourishing economy of Garos by setting up small scale industries like carpentry, blacksmith and Canning centres. The Missionaries tried to change the economic condition of the Garos in whatever possible means.

**6. Contribution for Spiritual Growth:** The growth of Churches with the establishment of a Church in Rajasimla (on 14<sup>th</sup> April, 1867) with 37 members is significant. When the Church in Tura celebrated its centenary in 1982, the position of the convention stands as 12 Association inclusive of 81 Mother Churches and over 81,000 baptized members (Centennial Souvenir, 1982). Today even in one Krima No. I, Headquarter Nishangram has 75,347 adherents, Christian families: 21,475, Mother Churches: 49 Churches, Baptist Churches: 517, Small Churches: 320 churches. With the growth of the Church, the spiritual life of the Garo adherents increased from strength to strength.

In conclusion it may be observed that the American Baptist Missionaries had done a commendable service for the Garo indigenous tribe of Meghalaya. Though the basic objective is to evangelize and propagate Christian religion. From that perspective they had succeeded in their mission. It is also a fact that when the Garos converted into Christianity their own Garo traditional religion is almost vanishing away from the scene. Christianity had also negative effect on the culture and custom as a well. However the contribution of the American Baptist missionaries towards the Garos is significant whether in the fields of education, health, literature etc. Had the missionaries not entering into Garo Hills, life style, education, literature, hygiene, etc will not be achieved at this level.

#### References :

1. *Centennial Souvenir*: Tura Baptist Church 1882-1982, Tura.
2. O.M. Rao, *Baptist Distinctive*, Christian Literature Centre, Guwahati, 2001.
3. William Carey, *The Garo Jungle Book*, New Delhi, 1993.
4. M.S. Sangma, *History of Garo Literature*, NEHU, Shillong, 1992.
5. F.W. Harding, *Baptist Manual*, Guwahati, 2001.
6. A. Playfair, *The Garos*, London, 1909.
7. Garnet William: *History of American Baptist Mission*, Breston, 1849.

## Traditional Institutions of A·kingNokmas of Garo Hills of Meghalaya: It's Past and Present

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**Abstract-** *Under no circumstances, Garo women marrying a non-tribal husband are selected to succeed and inherit the A·kingNokmaship even though one may not have female issue to succeed. Garo society, culture, traditions, customs and laws need to be continued and flourished amongst the Garo community and maintain their own identity in the midst of present challenges. A·chikwomen must unite and come up to defend their rights and the rights of their sons and the daughters. A·chik women need support and help by the government and cooperation from the society by making necessary legislation in the matter of marriage, divorce, succession, inheritance and so on. The necessary backups are to be given to the Garo Hills Autonomous District Council as protector and guardian of customary laws and traditions under the sixth Scheduled of the Constitution of India*

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**Keywords:** Traditional Institutions, Nokma, Motherhood

**Introduction:** The word, ‘*Nokma*’ means a ‘Mother of a house’ or a ‘motherhood’ (noknima·dot or ma·bikrom) whereas the position of a husband is that of a guardian and a manager of his wife’s property. According to the Laws and practices of the indigenous Garo tribe of Meghalaya, the *A·kingland* belongs to the *ma·chong*(motherhood) in which a mother of a house (Nokkrom) belongs to her and not the husband. The *A·kingNokmas* both the husband and the wife are merely the guardian and the custodian of the *A·king* land on behalf of the particular motherhood. Any decision pertaining to affairs relating to the *A·king* Land must be consulted with her *chra* (male members of the family). She can exercise her power and authority, and even carry on responsibilities bestowed on her by her *chras* and the *mahari* through her husband and protect the unity and integrity of her *ma·chong’s A·king* Land. Traditionally she has to perform all social and religious functions of her clan. However, *A·kingNokmas* has to take a lead in all the social, religious, political, administration of justice and the welfare of their own people.

**Pre-British Era:** Prior to the advent of the British into Garo Hills, every *A·king* Lands were Independents of each other. People living within the *A·king* land were governed by a simple system of administration in both civil and criminal cases. Nevertheless the administration of justice was carried on

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by the *A·kingNokmas* and his Council. The procedure for administration of justice was through an act of “Bobildinga” or ‘*Grodinga*’ and *be·enmalua*. With passage of time this system was modified to be more refine as an administration of justice through a Council known as “Melaa or Bichal” by the village elders and the *mahari* headed by a *Nokma*. The decisions taken in such a *Melaa* or *bichal* is very strict and have to be executed by all means. Any unlawful acts are considered wrongs because they violate and obstruct moral precepts as well as hamper an individual reputation or feelings. In order to appease the feelings of an offended person or to compensate for any loss or death penalty through an act of ‘*be·enmalua* or *Grodinga*’ was awarded to the guilty. *A·kingNokmas* play important role in managing the village affairs and the administration of justice within their own respective jurisdictions.

### **British Era:**

When the British occupied Garo Hills in the early part of 1824, they recognized that the *Ak·ingNokmas* were Independent of each other and subject to none of the outside power. They even refused to co-operate with neighboring rulers. And so, British Government appointed *Laskers* and *Mouzadars* to look over them to help in collecting revenues, taxes and administration. The *Laskers* and *Mouzadars* were appointed in place of the *Aki·ngNokmas* to rule and serve for their own interests. They snatched away all the political, administrative and judicial powers from the *A·kingNokmas*. In this way they have reduced the position and status of *A·kingNokmas*. Apparently the *Nokmas* became mere titular heads of their own respective *ma·chongs* (motherhood). They continued to be the custodian and guardian of *A·king* lands without any revenue, administrative and judicial powers even though the traditional customs, laws and practices were left untouched.

Under this new acts of arrangements the administration of justice as per the existing Customary Laws and practices were conferred to the newly appointed *Laskers* and *Sardars*. British administration then introduced the system of payment of ‘*dai*’ (Compensation) in lieu of death penalty imposed by the people by practicing “*Grodinga*” or ‘*B·eenmalua*’ with motive of killing others. The *Laskers* so appointed were given a *Sanad* by the Deputy Commissioner and were empowered a third class magisterial power to try cases and offences of certain categories. *Laskers* were empowered to try offences of theft, injury to property and persons, house trespass, gambling and drunkenness and enforce fines up to Rs. 50 to the guilty.

### **Post Independent Era:**

After India got an Independent in 1947, Garo Hills Districts was administered under the Provision of Para – 1 (1) of the Sixth Scheduled to the Constitution of India. Under these Provisions of Law, the Garo Hills District Council was constituted in 1952. With the establishment of Garo Hills District Autonomous Council a number of Acts were passed to assist and manage the administration, protecting and preserving the Customs and traditions of the



people as well. After the formation of Garo Hills Autonomous Council, in 1952 under the Sixth Scheduled to the Constitution of India, which is meant for self-governance protecting the indigenous Tribal cultures, customs and law, continued to follow the policy of British colonial rulers by sidetracking and neglecting the indigenous tribal institutional chiefs, i.e the *Nokmas*. Garo Hills Autonomous Council, which is the authorized body under the new Constitution of India, to protect, promote and preserve the traditional institutions, custom, cultures and Laws failed to restore the powers and functions of the *A·kingNokmas* in social, political, administrative and judicial which were usurped by the British colonial ruler to suit their own interests.

The traditional institutional chiefs of *A·kingNokmaship* became mere figurehead and custodian of the properties of the *m·achong* (Motherhood). The powers and functions of these *A·kingNokmas* so long exercised by them were disturbed amongst the newly created office of *Laskers* and *Mouzadars*.

#### **Some Observations:**

The indigenous institution of *Nokmaship* that has existed since time immemorial has continued till this present generation. Therefore, it is necessary to protect and preserve these institutions by reviving and improving them. The selection, appointment and disqualification of *Nokmas* must continue as it is in the past i.e. to leave in the hands of the *Chras* and the *mahari* as per existing customary laws. Moreover, the existing structure under the Garo Hills Autonomous District Council particularly 'The Village Council Act, No. I of the 1958' may be amended making the *A·kingNokma*, to be selected, as the chairman in the place of *Laskers*.

There is a need to involve the *A·kingNokmas* and his Council making them more responsible in checking the Land alienation by issuing documents, sale mortgage and transfer to the people other than the indigenous tribe. The empowerment of traditional institutions and making them more responsible towards the society and their *ma·chong* by involving and participating in social, political, maintenance of peace in their localities. By doing so, it will even help them to revive their status and position as they used to enjoy in the society in the past. As it has been discussed above that the real *A·kingNokmas* are wife or the mother and their husbands are the guardian and managers on behalf of their wives, the responsibilities of the mother in shaping their own destiny is essential. Garo society, although, it is a matrilineal society, every decision has been taken by their husbands. *Nokmas* or *noknima·dot* should be allowed to voice their grievances in shaping their own future destiny.

Today we find that most of the *A·kingnokmas*, no longer care taker of their *A·kinglands*, as they are being neglected and sidetracked by the *Chras*, *mahari* and the State Government. And if this trend continues, the systems of the *A·king* land will disappear in future. There may be some merits and demerits in empowering and involving these traditional institutions by policy and decision making body as most of the *A·kingNokmas* both wife (*Nokma*)

and her husband (manager and guardian) are illiterate especially in some remote villages.

But, the time has come to empower and involve these traditional institutions in the developmental processes of rural areas. The judicial powers to try petty cases both in civil and criminal cases needs to be restored to the *Nokmas* and his Council which was once taken away by the British rulers.

Under no circumstances, Garo women marrying a non-tribal husband are selected to succeed and inherit the *A·kingNokmaship* even though one may not have female issue to succeed. Garo society, culture, traditions, customs and laws need to be continued and flourished amongst the Garo community and maintain their own identity in the midst of present challenges. *A·chik* women must unite and come up to defend their rights and the rights of their sons and the daughters. *A·chik* women need support and help by the government and cooperation from the society by making necessary legislation in the matter of marriage, divorce, succession, inheritance and so on. The necessary backups are to be given to the Garo Hills Autonomous District Council as protector and guardian of customary laws and traditions under the sixth Scheduled of the Constitution of India.

#### References :

1. Burling, Robbins, (1963), *Rengsangiri: Family and Kinship in a Garo village*, University of Pynsylvania Press, Philadelphia.
2. Chattopadhaya, S.K., (ed.), 1985, *Tribal Institutions of Meghalaya*, Spectrum Publications, Guwahati.
3. Chocko, Pariyaran. M., (1998), *Matriliny in Meghalaya*, Regency Publications, New Delhi.
4. Goswami M.C. & D. N. Majumdar (1972), *Social Institutions of the Garo of Meghalaya* ,
5. Kar, P.C., (1982), *Glimpses of the Garos*, Garo Hills Book Emporium, Tura.
6. Mackenzie, Alexander, (1981), *The North East Frontier of India*, Mittal Publications, Delhi.
7. Marak, Julius L. R., (1999), *The Garo Customary laws and Practices*, Firma Publications, Calcutta.
8. Marak K.R. (1964), *The Garos and their Customary Laws and Usages*, Tura.
9. Marak, Kumie, R., (1997), *Traditions and Modernity in Matrilineal Tribal Society*, Inter-India Publications, New Delhi.
10. Momin, Mignonette., (2003), *Readings in History and Culture of the Garos*, Regency Publications, New Delhi.
11. Playfair, A., (1975), *The Garos*, Spectrum Publications, Guwahati.
12. Sangma M.S. (1981), *History and Culture of the Garos*, Books Today, New Delhi.

## Religion: Empowering or Oppression to women

\* Kaizar Rahaman

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**Abstract-** Religion plays an important role in every society and it is considered as an integral part of the society. But historically speaking, women have been placed in unequal positions in all societies and religions. In every religions society, Women have been either exploited or deprived from the main stream of society. The intensity of their subjugation and exploitation as well as oppression varies from society to society and from time to time but in no society, it has been completely eliminated. In feudal society, women were treated as commodity like land, animals etc. Even today the situation has not changed much. In every religion, the duty of women has been specified and violation of religious sanction is almost impossible even in the era of science and technology. In my paper I am trying to search what role does play religion with regards to women empowerment. Present paper also explores what are the religious obstacles for empowerment of women in society.

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**Keywords: Religion, Women empowerment, Inequality, Society.**

It would not be an exaggeration if we adhere to the view that religion is all about to determine the meaning of life. Primitive men were survived with religion when science was not developed. However, there we notice contrary opinions regarding the issue whether religion empowers or oppresses women nor not. Women empowerment is a very debatable issue in modern times. In this regard the theory of feminism has been developed. The main contention of this theory is that women are being exploited by men in some sense or other. Therefore, the demand of women's empowerment is colossal. Contemporary writers including Ramchandra Guha claim that religion is the stumbling block of women empowerment. In every religion, the duty of women has been specified and to violate religious sanction is almost impossible even in the age of science and technology. In Manusmriti, women's duty and functions have been specified. In Koran, women's duties and functions are specifically mentioned. In other religions it has been specified almost in equal manner. Therefore, women cannot violate religious sanctions. Therefore, when the question of women's empowerment is raised, the first set back would come from religion. Thus, in a sense, it may be claimed that religion actually denies women empowerment at large. In Indian religion and culture unlike men, women have largely remained passive receivers of religious teachings

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and ardent practitioners of religious rituals. Cultural practices and social attitudes developed around patriarchal interpretations of religious belief have defined and shaped the social and cultural contexts of Indian women resulting in their disempowerment and second class status. Besides in India where politics uses religion as a tool to manipulate the masses, women bear the brunt of the consequences of the cultural attitudes and the impact of religion and politics in their particular milieu. The question of women's empowerment in religion is locked in women's bodies inscribed by taboos, dictates on what they wear, whom they speak to, and their marital status. Even though all these are extraneous to the fact of their belief they form part of cultural practice in all religions. The exercise of power by women is at the pleasure of the man in control whether in the family or in the religious sphere.

Religion is a way of life, a form of an activity, according to Wittgenstein. Across religions women are prohibited from religious spaces. Women have the biggest stake in religion as dissenters. Women have internalized patriarchal Christianity. Women found comfortable within a little space that is given to them. Therefore, a lot of awareness is needed for both men and women to come together with a feminist consciousness that is essential to clarify the essence of Christianity. Women were disempowered and alienated by language, symbols and practice. Language can liberate or oppress people to give power to a few. Biblical or theological language is patriarchal. Though God is beyond gender, traditional male symbols and languages is used for God. Very sadly, language and symbols have been used as if they are true expressions of God and applied to deny women leadership in Church.

Not only in Christianity, even in Islam is disempowerment of women vividly expressed. Dr. Lubna Sarwath<sup>1</sup> pointed out that Islam has moved away from God and the teachings of the Quran. Chapter 7, verse.31 of Quran invites all the children of Adam to enter the Masjid and prostrate before God, yet today women are barred from Masjids in India and Pakistan. Surah 30 Rum: Verse 21 refers to mutuality in the marriage relationship. It states, "Women are a garment to men, men are a garment to the wife"<sup>2</sup>. He put love and mercy between you. She said that the triple talak as it is practiced today, where the man says 'talak' three times to divorce his wife. It is not mentioned in the Quran. There have to be three cycles or periods wherein arbitration and reconciliation is attempted, after which the last talak is effective. The Quran allows polygamy only in certain circumstances and caps the number of wives at four. In fact, polygamy comes with tough critical riders. Only one to two percent of Muslim men are polygamous, the figure being higher for men in other religious traditions including Christianity.

We think that Manusmriti has been most glaring religious scripture of Hinduism where women were disempowered from religious perspectives. Some of the remarks of Manu were detrimental to women. There are almost thirty three shocking verses in Manusmriti about women. In one verse it is

stated: “It is the duty of all husbands to extent total control over their wives. Even physically weak husband must strive to control their wives”.<sup>3</sup> In face value such remarks of Manu certainly goes against the empowerment of women. According to Hindu tradition, Manusmriti is a text which includes Lord Brahma’s wisdom. However, some verses of this text conflict with today’s contemporary society. Manusmriti says, “One should not marry women with reddish hair, redundant body parts (such as six fingers), one who is often sick, one without hair or excessive hair and one with red eyes”.<sup>4</sup> This clearly suggests that women were disempowered even social marriage system. In Verse 5 of Manusmriti again says, “ One should not marry women whose names are similar to constellations, trees, rivers, those from a low caste, mountains, birds, snakes, slaves or those whose names inspires terror.” It is further said that ‘wise men should not marry women who do not have a brother and whose parents are not well known in society’. All these remarks actually disempowered women in some sense or other. There are many more such remarks available in *Manusmriti* through which women were degenerated, neglected and disempowered and oppressed. Having said this, there are other religions where women were treated equal with men from religious perspective. Sikhism is a case in point. Dr. Raminder Kaur, a Sikh preacher, declared that ‘all are Sikhs here’, as the Sacred book of the Sikhs is a universal scripture incorporating saints from other religious traditions. Guru Nanak endeavoured to write for the understanding of all people. The Holy book was not meant to be an article or worship as it is today, but a book of learning. Men are instructed to be like females to realize God. She claimed that there is no gender discrimination in Sikhism. There are no priests only teachers called Jatedars and women can also be Jatedars.

### **Concluding Remarks:**

On the basis of above observation we may conclude by saying that in most religions, women in some sense or other had been disempowered or oppressed through formulating religious theories. Manusmriti is a case in point. Thus, when we talk of women empowerment, we cannot ignore or set aside religious influence. Simplistically, religion is the main hurdle of giving empowerment to women in the real sense of the term. Even in the 21<sup>st</sup> century, we cannot ignore religious sanctions when we are deeply engaged with the debate of women empowerment. Simplistically, I conclude by saying that religion still be a reckoning stumbling block to women’s empowerment.

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### **Footnotes :**

1. See Sarwath , L. “The Impact of Religion and Culture on Women’s Empowerment-An Indian Perspective”
2. Quran, Surah 30 Rum: Verse 21.
3. See *Manusmriti*
4. Ibid., Verse 4.

## Contribution of Sankaradeva Towards Socio-Cultural Development of Assam

\* Anjana Goswami

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**Abstract-** *Srimanta Sankaradeva (1449-1568 A.D.) the vaishnavite leader of Bhakti Movement who act as social reformer and educationist to strengthening the socio-cultural development through his philosophy of life and various innovations. He was born at Bardowa in present Nagaon District. The social and political situation of Assam was not systematically organized at that time. There were many dynastics and had no unity among them. There prevailed all sorts of evil practices, superstitions and social disintegration in Assam. Sankaradeva took these problems as serious issue and various steps were taken to improve these situation. This paper has an effort to analyse the contribution of Sankaradeva towards socio-cultural development of Assam to overcome the problems prevailed at that time.*

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**Keywords:** Sankaradeva Social-cultural development, Assamese society.

**Introduction:** A society is a group of organized individuals. This organization help the people in maintaining themselves, and provides them security Mac Iver and page have rightly pointed out that man is dependent on society for protection comfort education and multitude of definite services which society provides (Mac Ivar and page : 1950 : 40 : 42). The Assamese society at the time of Sankaradeva was formed with different unit of rulers with different faith. To overcome these problems and develop the society he innovated various methods to educate the mass people and propagate his new ideology.

“Culture” according to oxford Advance learner’s dictionary, is the way of life in which the customs and beliefs, art, way of life and social organization of a particular country or group. (Ed wehmeier : 7<sup>th</sup> ed 2005 : 373).

According to ‘Dictionary of Education’ ‘Culture’ means – Tatal Value, belief, customs, arts, scholarship, institutions and artifacts of a group or nation. (Teneja : 1989 : 56)

Culture is the result of the struggle and victory of the human mind over impulses, according to Biswanarayan Sastri (Bharali : 2<sup>nd</sup> Ed. 2009:4). For mental upliftment culture is very necessary. The culture is progressive by nature. Culture is the complex whole which includes knowledge, belief, art, morals, law, customs and any other capabilities and habits acquired by man as a member of society. (Tylor : 1871:1)

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The great Assamese Vaishnavite Guru and leader of Bhakti movement Sankaradeva (1449-1568 AD) who act as a social reformer and educationist to strengthening the Assamese society and promoted communal harmony through his philosophy of life and various innovations was born at Bardowa in Nagaon District. At the time of Sankaradeva the social and political situation of Assam was not systematically organized. There was many dynasties, e.g., Ahom, Kachari, Koch etc. and they had no unity among them. So there was no social integration at that time. To overcome these problems of Assam he introduced various methods which have great educational, social and religious value. He was the most outstanding religious teacher, poet, composer, musician, dancer, dramatist, actor, director, philosopher, integrator and architect of mankind and humanist. He and his followers established various institution like Than, Sattr, Namghar, Kirtanghar etc. and these institution extended their network entire North East Region and also other states of India and functioning till now with dignity.

#### **Social Scenario of Assam During The Time of Sankaradeva:**

The social scenario of Assam was not organized and stable at the time of Sankaradeva. As a great sociologist Sankaradeva was not supported this stratification on the basis of cast, religion, economic or political condition. The main problems of that period were -

There were many dynasty and they had no unity among them. They were hostile to one another. So there was no social integration at that time (Rajguru 1998 : 60.....63)

Castism is a great barrier of unification of the then society. According to Sankaradeva-

Kirat Kachari	Khasi Garo Miri
Yavan Kanka Govala,	
Asam Muluk	Dhoba Ye Turuka
Kuvacha Mleccha Chandala	

(Bhaga Vat Book II v 53)

Diversity of language and religion were most powerful obstacle at that time. People worshiped many God and Goddess and sacrificed animal and human to satisfy their idol. (Devgoswami : 2007 : 22) In the medieval period there was a dearth of efficient social leader. So there was no united mind among mass people. (Pathak 2009 : 42)

Assam was a multicultural land. Those who lived at hilly region had followed their own tribal faith and tribal customs. Due to confused admixture of different Hindu and Bhuddhist tantric cults a mysterious atmosphere was created in the country. At that time there was so much economic disparity that some people were without food, others were rolling in wealth. The bartered slavery system also prevailed there (Neog : 1998 : 77)

### **Contribution of Sankaradeva towards Socio-Cultural Development of Assamese Society:**

Srimanta Sankaradeva (1449-1568 A.D.) the vaishnavite leader of Bhakti Movement who act as social reformer and educationist to strengthening the socio-cultural development through his philosophy of life and various innovations. He was born at Bardowa in present Nagaon District. The social and political situation of Assam was not systematically organized at that time. There were many dynastics and had no unity among them. There prevailed all sorts of evil practices, superstitions and social disintegration in Assam. Sankaradeva took these problems as serious issue and various steps were taken to improve these situation. So Sanaradeva and his followers innovated such type of method to develop and intregate the Assamese society. These are –

#### **Nam Prasanga (Prayer) Chanting the Name of God:**

Sankaradeva innovated a new cult known as, “Ek-Saran-Nam-Dharma” which is at present known as Mahapurisia dharma. Sankaradeva accepted Purusuttam, Parmeswar and Narayan as identical with vasudeva Srikrishna. The purusuttam of Gita is the Mahapurush of the Bhagawat. Sankaradeva’s religion is known as Mahapurusia dharma. The main method of worship is kirtan or singing the praise of the name of the Lord, it is also called the, “Nam-dharma”. As the Gita strictly enjoins giving up all other practices and ceremonies and lays stress only one God and Sankaradeva also support this and so his religion is known as Ek-Saran-Nam dharma. (Bhattachajya Ed 1969 : 206 : 207). The most notable characteristics of the Vaishnavism of Assam are the Sattra institution and Namghar through which the faith was propagated and stabilized.

EK-Saran means taking sole-refuge in the Lotus feet of Krisna. The root of thisconcept is Bhagawat Gita in which Krisna said to Arjuna –

“Sarva Dharma Parityajya  
Mam ekam sarnam vraja” (abandoning  
All dharmas, O, Arjuna,  
“Sarana” in me alone)  
“Annya dharma mantra tantra sidra bahu hoi,  
Bhagawat dharma nahi sisab sangsai”  
(Nimi Nabsidha Sambad : 48)

The school of Assamese vaishnavism has preferred and adopted sravana and kirtana as practical modes of their devotional practices (sarma : 2016 : 55)

According to Sankaradeva –

Yadyapi Bhakati nabavidha Madhavar  
Sravana-kritana tate Maha shresthatar.  
(Bhagawat Book I verse 38)

(Though there are nine types of Bhakti, yet Sravana and Kirtan is the



best of all)

Prayer is another form of Kirtan. The sacrificed in fact continued in prayer. Prayer is equivalent to naming the God and reconciling them by the magic of the formulas sacrifice prolongs life, and prayer save us from sin; prayer is always necessary complement of sacrifice. (Ramkrishna mission : Vol I : 1938 : 185-186).

Sankaradeva also followed this rule. He said that –

“Jnanatu, karmatu kari samprati

Hari kirttanese param goti” (102)

(Kirtan ghosa : Pasanda Mardan)

(Chanting Harinam is best way than knowledge or action)

According to Sankaradeva Krishna is the main motivating source of moral, spiritual, religious, cultural and social value of life.

He said that –

“Samasta bhutate byapi achumai Hari,

Savaku maniba tumi Vishnu budhi kari, (1820)

(Kirtan ghosa : Srikrishna vaikuntha prayan)

(I am present in all creatures, therefore, you do recognize all as the Vishnu)

In the Namghar people offering mass prayer for general people. There is no upper or lower class; all are equal and sit in the koth (mat) on ground.

With the help of Kirtan ghosa he gave the moral value –

Brahmavadha Pitri badha surapan

Agamyagaman Karai,

Garutiri marai Suvarnaka harai

Mitrar droha acharai (182)

(Ajamil upakhyan, kirtan ghosa)

(Killing of Brahmana, father and cow, drinking alcohol, stealing Gold, illegal sex act as great sin in society)

Kirtan was the mature product of Sankaradeva's mind. It affords pleasure to all classes of readers. To children it gives stories and songs for amusement, it delights the young with true poetic beauty and the elderly people find here religious instructions and wisdom. (Barua : 2011 : 33).

Dignity of labour and simple living and high thinking is the main moto of Sankaradeva's philosophy. With the help of Nam-Kirtan one can purify his mind and soul.

“Krishna katha shravanata sudha haibe mann,

Sarvadaya karibeka krishnara kritan. (376)

(Kirtan ghosa : Prahlad charitra)

(For purification of mind one can chanting and listening the name of Lord Krishna)

### **Visual Art:**

Art and Architecture are great agency for evoking the spirit of international brotherhood. According to Tolstoy art is the means of ending

hostility and warfare. (Mission, R.K. 1938 : 242). Art has a profound relationship with Religion, relating as it does to the fundamental experiences of the human soul in its communion with God. In past ages Architecture was employed as one of the principal means of worshipping God and nature, and it stood as an embodiment of devotion and sacrifice. The Vaishnavite movement led by Sankaradeva burst into a new efflorescence of art and painting. Sankaradeva himself painted celestial figures on scenes for popular dramatic performances known as Cihnayatra. (Barua : 2011 : 159) This grand painting had the pictures of sapta vaikuntha (seven heavens) as imagined by him. It is a pantomime. According to Hemkosh Dictionary 'Cihna' means a mark, sign or symbol (Barua 1989 : 360) Yatra' means journey or a type of rural drama or play performance (Deka : Ed 2011 : 488) In Cihnayatra Sankaradeva art the symbol of 7<sup>th</sup> seven heaven.

The Namghar / Kirtanghar's wall and posts were carved with sculptures giving emphasis on mythology, dasavatara figures of Vishnu, scenes from Ramayan, Mahabharat, Bhagawat, Lotus, tortoise, lion, cow etc. Again the image of Garunda bird, Joy-Bijay (Gate Keeper) Garunda Pakhi (.....bird) in front of Namghar/Kirtanghar is kept to attract the common people.

A beautiful Thapana (Altar) or singhasana (Altar with lion), decorated with seven steps of lion, tortoise and elephant which motivated the people at present time also.

Gasa (light stand) Sarai (offering tray) also decorated with beautiful curves with the help of these art, he tried to improve the people's aesthetic and spiritual value.

Mukha (Mask) is also a visual art which used in Bhawna Chitra Bhagawat is the result of Sankaradeva's creative and artistic mind.

The work of art is not merely subjective, it has great mental value, that evokes various pleasures. Another artistic contribution of Sankaradeva is the Vrindavani Vastra (cloth decorated with Vrindavan) as sixty metre woven cloth where the activities of Lord Krishna at Gakul and Vrindavan was delineating there. This cloth has great spiritual and aesthetic value.

The forms of God, the one having the highest aesthetic appeal for man must be human form. It is because of this that Krishna is the supreme human form of the deity. Karala Barhai made the Krishna deity according to Sankaradeva's advice. Psychologically and aesthetically there can not be any other that can approach him. (Mission, R.K. Ed 1938 : 321).

### **Performing Arts:**

Performing arts, according to, "Oxford advanced learner's dictionary" are arts such as music, dance, drama, which are performed for an audience for entertainment. The ancient lore of the performing arts of India was associated with figure of Lord Siva as we find it in the all time authority on the subject, Bharat's Natyasatra. The neo-Vaishnava upheaval then demanded a Visnu-Krishna liknage. (Neog 2003 : 12.2). The science of music associated

not only with singing and playing of instrument, but also with the dramatic performances and dancing was well cultivated. The Vaishnava leader cultivated Gandharva Vidya and qualified himself as a master of musician (Barbayan) and dance. He gave lessons to the disciples on art and music, dancing and playing Bhowna (Barua : 2011 : 158) Sankaradeva innovated various performing arts such as Borgeet (songs which have spiritual essence composed by Sankaradeva and Madhavadeva) Ankiya nat, Chihnayatra (a pantomime), musical instrument such as Khol (drum) Tal (cymbal) etc. to diffuse his Ek-Saran-Nam Dharma which has aesthetic value.

Sankaradeva believed that audio visual media with aesthetic value is the best media to attract the mass people to his culture. To create beauty, to give pleasure, to communicate to the people is the purpose of all art. To really appreciate art, it is important to understand the purpose and technique. The genius of the artist lies in being able to arouse in the mind of the audience a suitable emotional response. Ankiya nat grew out of the comprehensive dramatic technique of the ancient Indians and an innovative mind of Sankaradeva, a technique which includes, music, song, literature, poetry and dance. The main purpose of Sankaradeva's plays or Ankiya nats is to evoke a devotional attitude in the audience. So he created Bhakti Rasa. A Rasa is said to be the result of a combination of bhavas or states of mind. The word 'Bhavana' derived from 'Bhavas' which means sentiments or emotions. From Chihnayatra to Rambhajan there found both aesthetic sense and value of Sankaradeva through which he aroused the emotion of common people. Prof. K.D. Tripathy, a Sanskrit scholar, describes Sankaradeva's Ankiyanat as remarkable in terms of its philosophy; aesthetic and innovative technique besides being the oldest and the most important of the North Indian temple theatre forms. (Phukan : 2011 : 104).

The venue of staging an Ankiyanat is an open hall of the Namghar / Kritanghar or temporary structure. The sutradhara himself in course of the performances indicates the audience about the change of dramatic situations implying change of acts and scenes. Ferly Richmond, a professor in Asian theatre of the Michigan state University said that, Sankaradeva was not only a pioneer in vernacular dramatic performance but he is acclaimed to be the first innovator of "open-air-theatre" in the world. (Ed Das : 2014 : 184).

Music has been an intrinsic part of Indian spirituality. Starting from "Samveda" the Indian music has been a well established medium of devotion, concentration and contemplation (Tiwari : 2009 : 143). There are total one hundred and nineteen (119) songs in his six plays which have great aesthetic value (Goswami : 1999 : Introduction 11). These songs have devotional values also. It starts with Nandi and ends with Muktimangal Bhatima.

For Indian dance is a personal form of prayer. The dancer is virtually inseparable from the dance (Sahai : 2003 : 44)

In Ankiya plays sutradhara (Main director) plays the role of the main dancer. The other forms of dances are Krishna dance, Gopidance, Calidance

Orchestra and dance create a devotional atmosphere and help the audience to develop their aesthetic value. Sitting spaces of the Namghar / Kritanghar are systematically and aesthetically arranged.

The actors used paints for their make up, prepared by hengual (chinahbar) and haitel (yellow orpiment) mica, indigo etc. The effigies and mukhas (musk) are used for hideous persons, animals or buffoons and jesters. It was the result of Sankaradeva's creativity, imagination and aesthetic sense by which he inculcated value education.

### Yoga (Meditation):

The Locks' disciplinary theory is same as ancient Bhrahmonic system of education. Sankaradeva's philosophy is same as this theory. Sir Aurobindo insisted that healthy body is a necessary condition for intellectual and spiritual attainment. According to him, beauty is the ideal which physical life has to realize. Sankaradeva gave importance on physical beauty. So to develop physical beauty he gave importance on exercise, yoga, etc. (Sarma : 1996 : 433). In one of the letter sections of the "Bhakti Ratnakara" Sankaradeva quotes verses from the eleventh book of the Bhagawat to explain the yoga accessories of Yama (restraints) like non-injury to life, truthfulness, etc. and niyam (observances) like purity of body and mind, contentment etc. Sankaradeva is said to have studied yoga after he had finished his studies at school and to have taken yoga, exercises of asana and pranayam, (Neog : 1998 : 233)

Ahimate Sastra                      Bisari Pasat  
Yoga sastra paila jai,  
Paraboka hit                                      Sadhibak citta  
Dharila yoga upai,, (55)  
(Dutta Barua : Ed 2016)

At last he find out the yoga sastra and to welfare for other take it as a method.

### **Language and Literature:**

Sankaradeva contributed to the Assamese society of various forms of literature such as – Ankiya nat, Kirtan ghosa, various canto's of Bhagawat, Ramayan etc. He composed Bhakti Ratnakar and Totoya “Madhudanavada” in Sanskrit. His other creations are in Assamese and Brajwali. Out of the twelve S Kandhas of the Bhagawat he translated major portion, namely, Books I, II, III, VI, VIII, IX and the Book XII. (Barua : 2009 : 11)

Sankaradeva used Brajwali language to diffuse his philosophy and ideology entire Indian because it is a language that understood by the most North Indian people. Sankaradeva's literature was, however, meant chiefly to serve practical purpose in the vaishnavite movement, religions and certain limitations. It has a universal appeal and touch every human heart. In many of such passages philosophy, morals, rules of conduct are given not only to his age but for all ages. (Barua : 2009 : 49). He wrote his works mainly in common language of the people that is Assamese. As most of his writing were made for daily prayer services, these were used even by the illiterate folk and thus literacy and learning were greatly encouraged by his writings (Goswami : 2007 : 51).

Like Gandhiji, Vivekananda and other modern educationist Sankaradeva felt that women education and education for lower caste is necessary for their day to day life and upliftment of society Right type of education fulfill their needs of life. So he used simple and common language other than Sanskrit to all of them. Because Sankaradeva new that Sanskrit language only for learned and upper class people. He said that

Kak buli Hari Katha                      Harir kirtan kiba  
Jitu sabe akua najane  
Stri, sudra Antya Jati                      Taku siksha diba mati  
Dharibe sisabe aho pran (330)  
(Srimad Bhagawat : Eleventh part  
Nimi Nabsidha Sambad : Sankaradeva)

(To learn about God, education should be given to women and other low cast people to live a healthy life)

From above discussion it can be said that Sankaradeva's Bhakti movement greatly contributed to the growth and development of art and literature in Assam, which have great social, moral and spiritual value (Barua 2009 : 85)

### **Lecture, Seminar, Discussion, Debates and Symposium:**

Lecture, Seminar, learned discussion were the normal and important features of the common people. So, sometimes debate, discussion and seminars were held and explain the difficult words, carefully with meaning. For discussion of religious and spiritual topic and namkirton he established

kirtanghar at Alipukhuri (Lekharu : 1952 : 34). There were established Kirtanghar / Namghar / Than where Sankaradeva and Madhavadeva stayed, e.g. – Gangmou, Roumari, Madhupur etc. Sometimes debate also held, where different learned persons were invited. As Sir Richard livingstone remarks there is much to be said for these methods of debate and discussion in the old system of education (Barua : 2009 : 105) Sankaradeva sometime invited his Bhakatas to discuss about the religious matter, where moral, spiritual and hygienic value also related. One prevailing custom among the learned was intellectual filibustering. Proud pundits travelled from centre to centre challenging people to scholarly disputation. (Neog Ed 2003 Revised : introduction)

Kirtan/Namghar as a religious institution which is the place for the discussion, debates and seminars. There also discussed on various day to day problems of the villagers and also solve these problems. There held some scholarly discussions with the reputed scholars (Lekharu Ed 1952 : 194) For that, scholars were invited from various places. When Madhavadeva meet Sankaradeva at the first time there also held debate on Ek-Saran-nam-dharma and Sakti Puja (Lekharu Ed 1952 : 66). From the sattradhikar of Narowa sattr Sjt. Debananda Goswami and Nikamul sattr's sattradhikar Sjt Punyabrat Goswami it is found that they have arranged some lecture programme on various topics such as saran, Sankaradeva's philosophy, amendment of some rules and regulations for present society etc. in village and town Namghars.

### **Saran and Bhajana:**

Saran and Bhajan are two forms of initiation ceremonies of Vaishnavas introduced by Sankaradeva (Mahanta 2001 : 60). A person in order to qualify himself to be considered as a genuine member of the vaishnava community and to take active part in all religious functions, must of necessity, be initiated by the head of the Sattr with which his family is traditionally connected. The rite of initiation is called sarana and it is usually performed by the adhikara within the sattr campus. But, whenever the sattradhikar goes on ecclesiastical (Sahar fura) to see for himself conditions of disciples at villages, the rite of initiation is also performed during such tours (Sarma : 2016 : 119). At the time of Sankaradeva Saran was performed inside the Namghar/Kirtanghar.

Hensuni Srisankara isat hasil  
Namghara thapanar agat basil, 422  
Pustakak lagi dandawata karail.  
Juktikari vipragon saranak dil, 423

(Santawali Ed 2008)

(Sankaradeva smile to hear that and sit in front of the Thapana (Altar) and advised Brahman to prostration to religious book for saran)

Bhajan is followed by senior devotees. (Mahanta : 2001 : 62). Saran and bhajan not only a gate way to Vaishnavism but also hygienic factors and

healthy practices, Every residential and non-residential bhakatas followed the rules and regulations of Saran and Bhajan where sermon them about good conduct, ethics, morals (sadasara) and cleanliness and personal hygiene (Saucacara). They rising in the early morning, hand washing after toilet, oil massaging before bath, Guru Sewa after bath, (prayer and meditation), hygienically cooking and eating food, eating food after bath, use toothpick after eat, follow ethics and morality, abstaining from alcohol and drugs, wear neat and clean cloths etc. (Dev-Goswami : 2014 : 118-125). Distributor of Prasad always used a mouth cover for hygienic reason. With the help of Saran and Bhajan Sankaradeva inculcate the hygienic, moral, spiritual and social value, which are followed by Assamese people at present time also.

### **Text Book with Stories and Legends:**

The story telling is one of the important and comprehensive approaches to inculcate the values in the minds of the mass people. It is one of the potent ways of importing values and communicating positive message in an integrated and implicit manner.

The explosion of and its application has changed the life style and value of the society. Value covers all aspects of personality development, i.e., intellectual, social, moral, aesthetic and spiritual etc. Sankaradeva tried to inculcate values among the, people through stories and legends. The presentation style of the stories are mainly Nam (song from Kirtanghosa such as Ajamil upakhyan, Hara mohan, Prahlad charitra etc.), Ankiya nat (Drama i.e. Six plays of Sankaradeva), Borgeet etc. Presentation style and theme of the story help the common people to inculcate various values such as moral, spiritual, environmental, social etc. As for example, with the help of the story of Prahlad Charitra Sankaradeva describes how the name of God, or chanting the name of God sinner also destroys his sin. Following verse of Ajamil upakhyan said that –

Maribor bela                      ito Ajamile  
Narayan Nam Laila  
Kauti JanamaraJata Mahapap  
Taro prayascritta bhaila (182)

(At the moment of death Ajamil Uttared the name of Narayan his younger son, which is the one name of God and for that his all sins were atoned)

Sankaradeva and his main follower Madhavadeva contributed various values through his Ankiya nat and Jumura. The plots of the plays were drawn from the stories and legends of the Bhagawat Puran. People enjoyed those plays enacted on the life and activities (Lilas) of Lord Krishna, and positive response from the people made the missionary endeavors of the saints and their followers quite easy. (Pathak : 2015 : 36) Play wright.

Sankaradeva used Brajawali language in his plays because it is easy to understand by mass people not only in Assam, but all over north and north east India. Sankaradeva translated various Sanskrit books and illustrate and

elaborate in Assamese so that even a common man can understand very easily.

### **Establishment of Institutions:**

Sankaradeva, in order to propagate his religion i.e. Ek Saran nam dharma and inculcate various value education, established many institutions at every places where he stayed. In 1468-69, at the age of 19-20 Sankaradeva established a “Kirtanghar” at Tembuani. According to Ramcharan Thakur,

Vingasati Batchar yebe Tan huya ase.

Sankarat gosar karila loke pase (1606)

Tambuani lagi yau karia yatan.

Suni Sankarar vaia anandita mon. (1607)

(Dutta Barua Ed 2012 : 319 -320)

Ramcharan Thakur Gurucharit

(At the age of twenty, friends and relatives of Sankaradeva advised him to go to Tambuani)

According to Vishnuram Medhi, “He gave us universal religion, culture, music, dance and drama and a well-unit democratic social institution of Sattras, through which he preached his religious tenets. In this Sattras people of all classes and castes whether devotees, disciples, followers or sympathizers meet together and perform social and religious functions”. (Neog 1998 : IX)

The Namghars and Sattras are the gifts of Vaishnava movement. Along with the spread of vaishnavism, inaugurated by Sankaradeva, in the 16<sup>th</sup> century a large number of Namghars (prayer halls) sprang up through out the length and breadth of the country. The existence of a village, inhabited by Hindu people, without a Namghar in Assam, in fact can hardly be conceived of (Ranjguru 1988 : 260) It should be noted that the sattras work both as seats of religious learning and residential schools. The Namghars which were set-up as central religious institution of the village worked to a large extent towards spread of intellectual and cultural activities in the village, and in course of time being nerve-centres of the village came to co-ordinate all the aspect of social, economical and political life of the Assamese people. The Namghar further serve as a panchayat hall, where villagers gather to discuss and solve many of their day to day problems. Namghar became the main centre of cultural activities. (Barua : 2009 : 108). A social life of any country could not be altogether detached from religion. The ethical basis of the society has always been derived from religion. The sattras acted more or less as the guardians of morality by keeping close vigilance over their disciples. Namghar is the institute around which all cultural activities of an Assamese village move. This institution is nothing but an extended wing or a miniature replica of the sattras institution. Besides a prayer hall, villagers assemble here on various occasions to discuss matters concerning their village (Sarma 2016 : 155).

**Travelling:** Man always tried to see the unseen and knew the unknown. Travelling is a medium by which one can fulfilled this curiosity. Travelling



bring to mind a world of excitement, fascination, adventure and pleasure. After the death of his wife surjyavati and married his daughter Manu in 1481 at the age of thirty two he went out for pilgrimage (Neog:1998:103). He travelled twelve years and visited almost all the sacred places of India. He was accompanied by seventeen others including Mahendra Kandali, his teacher (Lekhara 1952 : 29). This journey help him to became a broadminded man without superstitions. As a poet, writer and religious leader he expressed his ideology about ek-saran nam dharma which is a part of Neo-vaishnava movement, and popularized in all over Indian by some vaishnava guru. In 1550 Sankaradeva set out on a pilgrimage accompanied by one hundred and twenty bhakat. (Goswami : 2007 47) Travelling as a part of education so with the help of this media one can fulfilled his various knowledge. After visited these various places Sankaradeva and his disciples understand the main aim of vaishnavism and diffused it in Assam. The places of pilgrimage presented him the universal vision. Though he was a person of a local habitation he was regarded as a representative of all humanity. (Barua : 2014 : 26) Most significant result of his first pilgrimage is that it helped to a great extent in evolving a perspective in the artist thinker his mission which he followed and translated into reality in his later life. (Mahanta : 2007 : 6) (Pradipjyoti)

Yoga help in the overall development of the personality of people. An overall development of the individual is intended to be achieved through education using an affective domain in addition to cognitive skills. Yoga aims at recreating the world, to mould it in the pattern of the divine reality, Evil has no permanent place in the scheme of things. (Goel : 2005 : 77).

### **Conclusion:**

Sankaradeva was not only a prophet and social reformer but also a great scholar, renowned writer, efficient organizer, good orator, philosopher, teacher and founder of Assamese culture and Assamese society. The most noteworthy and permanent contribution to society was his psychological study of mass people. The man according to him is a innocence incarnate. All are equal in the sight of God.

Brahmanar chandalar nibichari kula,

Datat chorata yena dristri ekatula (1821).

(Kirtan ghosa, Srikrishna Vaikunta Prayan)

(There is no difference between low and high caste, thief and donor)  
Now it is our duty to implement the Sankaradeva's method to develop our present socio-cultural harmony as well as cultural tradition.

### **References :**

1. Acharyya. N.N. (2003) "*The history of Medieval Assam*", Omsons Publication New Delhi.
2. Altekar Dr. A.S. (1975) "*Education in Ancient India*", Monohar Prakash an Varanashi, 1.

3. Barua, B.K. (2011) "*A cultural history of Assam (Early period)*" Bina Library College Hostel Road, Panbazar.
4. Bhuyan, S.K. (1956) studies in the literature of Assam, Gauhati.
5. Borkakoty. Dr. S.Kr. (2007) *Srimanta Sankaradeva : An epoch maker*.
6. Borua Dr.B.K. (1961) "*Asamar Lok Sanskriti*" Bina Library, Guwahati.
7. Barua, Hemchandra (Seventh Ed. 1989) Hem Kosha, Hemkosh Prakashan, M.R.D. Path, Chandmari, Guwahati-03.
8. Bhattacharyya, Haridas (Ed.1969). The cultural Haritage of India, vol III, Ramkrishna Mission Institution of Culture, Gol Park, Calcutta.
9. Chaliha, Bhaba Prasad (1998) "*Sankardeva studies in Culture*", Srimanta Sankardeva Sangha, Nagaon.
10. Dutta Barua, Harinarayan (Ed.2012) Ramcharan Thakur Gurucharit, Dutta Barua Publishing Co. Pvt. Ltd., Guwahati-01
11. Dutta Barua, Harinarayan (Ed.) Nimi Navasidha Sambad, Dutta Barua brother, Nalbari.
12. Dutta Barua, Harinarayan (4<sup>th</sup> Ed 2016) Mahapurush Sri Sankaradeva Aru Sri Madhavadeva Charitra; Dutta Barua publishing Co. Pvt. Ltd. Guwahati-01.
13. Das, Dr. Karuna Sagar (Ed. 2014) *Luit to Thames vol.XV issue XV*.
14. Goswami, Dr. Keshavananda (3<sup>rd</sup> Edn. 1999) Ankamala, Banalata, Natun Bazar, Dibrugarh-01.
15. Goswami, Dr. Kesavananda Dev (2007) Mahapurusa Sankaradeva, publication Board Assam, Guwahati-21.
16. Goswami Dr. Keshabananda Dev, (2014) "*SatraSanskritir Rup Rekha, Banalata*", Panbazar, Guwahati-1.
17. Hazarika, Surjya (Ed. 2008) Santawali, S.H. Educational Trust, Tarun Nagar, Guwahati-05.
18. Lekharu, Upen Ch. (Ed 1952) "*Kathaguru Charit*", Debiram Pathsala, Nalbari.
19. Mahanta Dr. Nirupama (2001) "*Sattra Sanskritira Rupachaya Achar Riti Aru Utsava Anusthana*" Nit Print, Dibrugarh.
20. MacIver, R.M. and page C.H. (1950) *Society*, London, MacMilan and Co. Ltd.
21. Mission, the Ramkrishna (Ed. 1938). The Religion of the world, Vol.I, The Ramkrishna Mission Institute of Culture, Calcutta.
22. Mookerjes, K.K. (1972) some great educators of the world, Das Gupta and Co. Pvt. Ltd. College Street, Calcutta-12.
23. Neog, Maheswar (1998) "*Sankardeva and his times : Early history of the Vaishnava faith and movement in Assam*", Lawyers book stall, Guwahati.
24. Rajkhowa, Benudhar (Ed 1923) "*Sri Sri Sankardeva's Gurumala Bani Mandir*", Guwahati.
25. Rajguru Dr. S (1988) "*Medieval Assamese Society*" Asami Prokashan, Nagaon.
26. Sarmah Dr. S.N. (2016) "*The neo-vaishnavite movement and the satra institutions of Assam*", Lawyers Book Stall, Guwahati.
27. Saikia, Dr. Purnananda (Ed.2005) Srimanta Sankaradeva's The Kirton Ghosa, Srimanta Sankaradeva Sangha, Kolongpar, Nagaon, Assam.
28. Sahai, Krishna (2003) The story of a Dance : Bharat Natyam, Ideology, publications Pvt. Ltd., Lajpat Nagar 11, New Delhi-24.
29. Tamuli, D.N. (Ed 2015) "*The Blessed island*", Doordarshan, Guwahati.
30. Assam Tribune 2<sup>nd</sup> March 2018.

## ICDS is a scheme for Women and Child Development

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**Abstract-** *ICDS is a unique programme, which encompasses the main components of human resource development, namely - health, nutrition and education. Under ICDS, a package of services, including supplementary nutrition, immunization, and health check-up and referral services is provided to children below six years of age and expectant and nursing mothers. Non-formal pre-school education is imparted to children in the age group of 3 to 6 years and, nutrition and health education to women between 15 to 45 years. It takes a holistic view of the development of the children and attempts to improve both their prenatal and postnatal environments. ICDS is a very important welfare project for the promotion of health and development of children and mothers. It facilitates a healthy future society. It is also an agency for development and a tool for social change. "ICDS - the Integrated Child Development Services - is the best expression of our commitment for our children. It is today the largest and unique and integrated programme of the world for early child development, converging interventions for health, nutritional well-being, psycho-social and cognitive development - linked to other sectoral operations for safe drinking water, environmental sanitation and women's development.*

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**Keywords:** Child, Women and ICDS Scheme

**Introduction:** In pursuance of the National Policy for Children, which laid emphasis on the integrated delivery of early childhood services and services for expectant and nursing women and based on the recommendations of the Inter-Ministerial Study Teams set up by the Planning Commission, the scheme of Integrated Child Development Services (ICDS) was evolved to make a coordinated effort for an integrated programme to deliver a package of such services. The blueprint for the scheme was drawn by the Ministry of Social Welfare, Government of India, in 1975. The scheme called for coordinated and collective effort by different Ministries, Departments and Voluntary Organizations. Any national development strategy that emphasizes human development essentially begins with the welfare of children. Investments made

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in children's health, nutrition and education help in reducing hunger and malnutrition, extending life expectancy, and lowering death rate and school dropout rate among them. Planners all over the world have recognized that access to minimum services for children is likely to ensure their optimal development and would help in shaping them into adults capable of contributing to economic and social development of the nation.

A high powered committee under the chairmanship of Shri Ganga Sharan Sinha recommended at that juncture that a comprehensive national policy for child welfare was necessary to take an integrated view of different needs of children and assign priorities. As a result of this, the National Policy for children was evolved and adopted in 1974. It describes the country's children as a supremely important asset and enjoins on the State the responsibility of their nurture and solicitude.

### **Integrated Child Development Services Scheme:**

In 1974, India adopted the National Policy for children and constituted a National Children Board to ensure continued planning, monitoring and coordination of various welfare services for children. An in-depth assessment of prevailing programmes confirmed the need for a holistic programme to provide an integrated approach to child growth and development. It was decided that such a programme should have components of health, nutrition, pre-school and non-formal education on health and nutrition. Thus, in pursuance of the National Policy for children, the country's largest programme was launched on the fateful day of 2 Oct. 1975 in 33 experimental blocks (4 - urban, 18 -rural, 11 - tribal). By the end of 1995-96, the scheme had spread over 5614 projects (Central - 5103, States - 511) covering nearly 5300 community development blocks and over 300 urban slums. ICDS caters for over 22 million beneficiaries, which include over 18 million children and nearly 4 million pregnant and lactating women from the poor socio-economic group. Nearly, 11 million children in the age group of 3-6 years participate in the pre-school education activities at various anganwadi centers. There are over 3 lakh trained anganwadi workers and an equal number of helpers in ICDS services delivery management. Undoubtedly, ICDS is the world's largest programme and it attracts considerable attention of the scientific community all over the world.

### **The Philosophy and Approach:**

The concept of providing a package of services is based primarily on the consideration that the overall impact would be much greater if different services are delivered in an integrated manner, as the efficiency of a particular service depends upon the support it receives from the related services. For example the provision of supplementary nutrition is unlikely to improve the health of the child, if the child continues to be exposed to diarrhea, infections or unprotected drinking water. ICDS therefore takes holistic view of the development of the child and attempts to improve both higher prenatal and

postnatal environment. Accordingly, besides children in their formative years (0-6 years), women between 15 to 45 years are also covered by the programme as these are child bearing years in the life of a women and her nutrition and health status has a bearing on the development of the child. ICDS is thus the unique programme, encompassing the main components of human resource development, namely, health, nutrition and education. It is perhaps the only countrywide program in the world functioning on a large scale requiring multi-sectoral operations and inter-sectoral linkages for its implementation. Efforts are also made for the convergence of related schemes/programmes in ICDS projects such as Safe Drinking Water Supply, functional literacy for adult women, and Mobile Food and Nutrition Extension Units (MEU).

#### **Beneficiaries:**

The programme beneficiaries are children below 6 years; pregnant and lactating mothers; women in the age group of 15—44 years and adolescent girls up to the age 18 years for non-formal education and training on health since 1991.

**Table no -1**  
**The various services under ICDS**

Sl. No.	Beneficiary	Services
1.	Children 0-6 years	Immunization, health check-up, supplementary nutrition and referral services
2.	Children 3-6 years	Non-formal pre-school education
3.	Nursing and expectant mothers	Supplementary nutrition, health check up( expectant mothers), immunization against tetanus (expectant mothers)
4.	Women 15-45 years	Nutrition and health education

The programme approaches a holistic child health comprising health, nutrition, and education components for pregnant women, lactating mothers, and children less than six years of age. The programme is implemented through a network of community level Anganwadi Centres. The range of services targeted at young children and their mothers for growth monitoring, immunization, health check-ups and supplementary feeding, as well as nutrition and health education to improve the childcare and feeding practices that mothers adopt. Pre-school education is provided to children between three and six years of age.

**Objectives of the Scheme:** The broad objectives of the ICDS Scheme are:

1. To improve the nutritional and health status of children in the age group 0-6 years.
2. To lay the foundations for proper psychological, physical and social development of 13 children.
3. To reduce the incidence of mortality, morbidity, malnutrition and school drop-out.

4. To achieve effective coordinated policy and its implementation amongst the various departments to promote child development; and
5. To enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

#### **Monitoring of ICDS:**

The programme is characterised by a built-in monitoring system. The Department of Women and Child Development (DWCD), Ministry of Human Resources Development (MHRD) has the overall responsibility to collect and analyze periodic work reports and suggest strategies for timely interventions, thereby ensuring smooth and effective implementation of the programme. The Central Technical Committee (CTC) of the Department monitors and evaluates services related to health and nutrition. It also provides continuous education and training to health functionaries associated with ICDS.

#### **Innovative activities under ICDS:**

In order to meet the changing needs of the target populations resulting from socio-economic pressures some innovative activities are proposed to be included in the ICDS scheme. Adolescent girls in the age group 11-15 years, on a selective basis, would be imparted health and nutrition education in AWs and would be encouraged to assist the activities of the AWs. Suitable vocational training to 15-18 years old girls would be imparted and an attempt would be made to set up training cum production centers. With the increasing number of women joining the labour force, it has become imperative to provide institutional care for children in the age group 0-3 years.

It is thus proposed that AWCs will have crèches attached to them. This is likely to spare young girl from taking care of siblings and would hopefully enhance primary school enrolment. Besides this, under the activities taken during the SAARC year of the girl child crèches are being opened by CSWB & ICCW in the states with low female literacy. These crèches will be located preferably in the primary schools or else at AWs. Another activity being dovetailed with ICDS package is the scheme of Women's Integrated Learning for Life (WILL) which aims at promoting literacy among women. These innovative activities are currently being tried in selected ICDS projects to see their feasibility before going on scale.

ICDS was conceived as a community based programme. It was envisaged that. People's participation would come forth readily in its implementation. However, contrary to the conception, it has acquired the profile of a Government programme and people accept ICDS programme as a dole. Taking cognizance of the above, it has been proposed to assign a few ICDS projects to recognized voluntary agencies known for their ability to mobilize local resources and community participation. It is particularly feasible when these agencies spring up at the grassroots level and are in direct interaction with the target population - a function which may not be easily

performed by functionaries of the Government.

To implement ICDS programme, the Department of Women and Child Development works in close collaboration with other technical departments, ministries and international organizations. It utilizes all the existing resources and services provided at the State, block and district levels, and has close functional linkages with many allied schemes of the Government of India and State Governments, Union Territories Administration. At the central level, there are forums like Committee of Direction for ICDS programme: Central Technical Committee on Health and Nutrition: Apex Body for ICDS Training programme and Technical Advisory Committee in the Planning Commission. In each State, an inter-departmental committee under the Secretary of the concerned department, co-ordinates the implementation of the programme. At the district level, a co-ordination committee functions under the chairmanship of the District Collector. At the block, project and village levels, the co-ordination mechanism is informal, voluntary and yet more functional in nature. Stress is given on establishing close functional ties among BDO, MO and CDPO, and between the rest of health and non-health staff of ICDS to avoid duplication of efforts and resources, & to optimize on time, money, energy and technical knowledge. At the village level, efforts are also made to have liaison between the Anganwadi and other local organizations like Mahila mandals, Panchayats, co-operatives, schools etc.

The focal point for the delivery of ICDS services in each project is an Anganwadi (AW) located in a village. An Anganwadi worker is normally a woman from the local community. She is an honorary worker in charge of an Anganwadi. She is assisted by an Anganwadi Helper in organizing supplementary nutrition feeding and non formal pre-school education activities. The Helper is also a local village woman. A supervisor provides guidance and support to AWWs in providing different services of the scheme. She/he has 20 - 25 Anganwadis under her charge in each rural and urban project and about AWs in each tribal project. A CDPO is the administrative head and is in charge of the project. He/she is responsible for management and delivery of services, and has to arrange procurement of material and equipment from the State Government and supply it to AWs. The information related to work reporting is compiled by CDPO for further submission to the State and Centre.

#### **Conclusions:**

ICDS scheme is the world's largest mother and child development programme. Launched in 1975 in 33 projects, it has spread over more projects. It has improved the ICDS mothers in health and nutrition; scholastic performance and psychosocial development of ICDS children, their immunization and nutritional status. It has also enhanced their coverage by ICDS services. This positive impact is visible in urban slums, tribal and rural areas though in varying degrees. ICDS's weaker links have been identified and are being strengthened. Given a good leadership and a dedicated team to

handle and co-ordinate its various activities, ICDS performance is expected to improve further in time to come.

The Programme provides an integrated approach for converging basic services for improved child care, early stimulation and learning, health and nutrition, water and environmental sanitation to the targeting young children, expectant and nursing mothers and women, and adolescent girl groups. These have reached nearly 300,000 trained community based Anganwadi workers and equal number of helpers, supportive community structures women's groups through the Anganwadi centre, the health system and in the community.

Taking into consideration the Government of India's incremental approach to financial provision for ICDS, its continued over-emphasis on the Supplementary Nutrition component and an inconsistent improvement in the levels of severe malnutrition across the regions in the country, it is necessary to undertake further study of the ICDS scheme, with continued focus on resource adequacy and allocation. It is therefore necessary to understand and explore whether the scheme is technically efficient, and how well the Government is using its resources to achieve its intended outputs and outcomes as they relate to ICDS, as well as, child and maternal health and nutrition and development.

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#### References :

1. Adish, S.V. Zaheer, M., Sinha, S.N. And Siddiqui A.G., (1988) Impact of ICDS on nutritional status of children. Research on ICDS- an overview, National Institute of Public Co-operation and Child Development, 1: 302.
2. Annual Report 2012-2013, Ministry of Women and Child Development, Government of India, New Delhi, p. 223.
3. Annual Survey Report of Central Technical Committee on ICDS. New Delhi.
4. Baradha G. and Jothimani, P. (1994), Impact of ICDS social components on children and mothers. Research Highlight, Journal of Avinash Lingam Deemed University, 4 : 142-148.
5. Central Technical Committee-ICDS, Department of Women and Child Development, New Delhi, Monitoring, Motivation, Continuing Education, Evaluation, Research and Training and ICDS,. Sachdev Y, Tandon BN, Krishnamurthy KS and Kapil U (Eds.)
6. Central Technical Committee. Integrated Mother and Child Development, New Delhi. *Integrated Child Development Services - Survey, Evaluation and Research 1975-1995*. Sachdev Y, Tandon BN, Gandhi Neeru and Dasgupta J (Eds.). 1996; 149-152.
7. Ministry of Human Resource Development, Department of Women and Child Development. Annual Report 1995-96, Part IV. Government of India Press, New Delhi 1996; 6-9.
8. Vijay Rattan (1997) Integrated Child Development Services Program Administration, Vol-1, S. Chand and Company Ltd., New Delhi.



## **Environmental Pollution caused due to waste materials and its impact on Tourism Development- a case study of Tezpur Town**

**\* Tanuja Tamuli Phukan**

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**Abstract-** *Tezpur, the beautiful town of Assam and the headquarter of Sonitpur district is situated on the right Bank of Brahmaputra. Its latitudinal and longitudinal extension is 29o37'N and 92o48'E. Tourism is the largest as well as the fastest growing industry of the world. But proper management is necessary to control the industry and most importantly to achieve sustainable development of tourist places. Hence Tezpur is the cleanest town in Asia still there are some places which have been made dirty by the non biodegradable materials by nearby people. The study is an exploratory one which is based on primary method. People have been throwing waste materials here and there instead of using dustbin provided by the Tezpur Municipality. Local people as well as the foreigners have to be aware by providing them sufficient knowledge about the Tourism development so that in future Tezpur will remain clean as today.*

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**Keywords:** Tourism, Knowledge, Management, Dustbin, Medical

### **Introduction:**

*“Tourism means trade, to be development, cultural sustainability, peace and fulfilment of human aspiration”*

By Taleb – Refai Secretary General United National World Tourism Organisation.

Tourism appears to be one of the most remarkable socio-economic phenomena of the 20<sup>th</sup> and 21<sup>st</sup> century. It is a mass happening reaching out to increasingly large number of people throughout the world and can be considered to be vital cog in the tool for global integration.

Tourism now-a-days is regarded as one of the most important activities which have attracted almost the entire world business and commerce. The rate of growth of the tourism industry has been enormous. Now tourism is not just, but one of the fast growing industries. It serves as the core or backbone in growth and development of the economic condition of a country. Earning of foreign exchange employment, improvement of social and political understanding of the world are some of the tremendous contributions modern tourism has been offering. Its educational and political fields are now well

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recognized very much throughout the world. Tourism has been recognized as the second largest, non-polluting money spinning industry on the world.

### **Objective of The Study:**

This paper makes an attempt to study the environmental pollution caused due to the waste materials and its impact on tourism. Further, attempt has been made to undertake some measures to avoid the pollution and also to develop the tourism industry in the region.

### **Methodology:**

The study is mainly based on primary as well as secondary data. The primary data was collected with the help of interviews with local communities etc. On the other hand, the secondary data is collected through different books, journals, internet etc.

### **Study Area:**

Tezpur, the beautiful town of Assam and the head quarter of Sonitpur district is situated on the right Bank of Brahmaputra. Its latitudinal and longitudinal extension is 29°37'N and 92°48'E.

The area has suitable natural infrastructure for the promotion of tourism. It has wide ranging physical, biotic and socio-cultural potentiality in this regard physiographically, the town is situated on an elevated tract about 78 meters above mean sea level and in an around a few low hills along the -banks at the Brahmaputra are located. To the north of Tezpur the landscape is generally high and uneven. The mighty river Brahmaputra flows through its southern boundary. The river Marabharali and Bhomamaguri hill are situated in the eastern part and numerous villages are found in western part. Throughout the whole region the land are uneven and water logging few lands are found in some areas which are locally called "Hollas".

Tezpur is a place with beautiful natural scene. The eternal beauty of the Tezpur Town attracts the tourist from outside of the Tezpur Town. People mostly from outside Tezpur Town come here during the month of December to February for picnic and to enjoy the natural beauty of Tezpur Town. But the tourist does not get proper facility in the picnic spot and they make the area dirty by throwing the garbage here and there which pollutes the area at a great extent. Again they throw the sewages/Garbage in the drain which carries the drain water of the whole Tezpur town in the river. As a result of which drain water is blocked. If in this way the situation goes on then Tezpur town will suffer from problems like flush flood as the Guwahati city.

### **Causes of the Environmental Pollution in the Area:**

- (1) Observed very less number of dustbins were found in the area of the picnic spot. Sewages were thrown here and there.
- (2) Observed drinking water problem.
- (3) Observed dirty toilet which are provided for tourist.
- (4) Observed Drains through which the water of the Tezpur Town goes out is blocked because tourists throw out the sewages and garbage to the

drain.

- (5) Observed that roads are conjusted because temporary shops are set there.
- (6) Observed no proper car parking is kept for tourist.
- (7) Observed no proper area for shops to be set up.
- (8) Observed no special security is provided at the area of picnic spot.
- (9) Observed huge traffic jam in important areas of areas.
- (10) No proper cleaners sweepers and managers are provided in the area and so on.

**Recommendation:**

- (1) **Dustbin should be provided:** Numbers of dustbins should be provided at the area of picnic spot so that sewages /garbage will be thrown by the tourist at a particular area.
- (2) **Clean drinking water should be provided:** Clean drinking water should be provided in the picnic spot for the use of the tourist.
- (3) **Pay-Toilet should be provided:** A person should be appointed to look over the pay-toilet in the picnic spot so that tourists will use the toilet and pay for it to that particular person. And Sweeper should be appointed to clean the toilet.
- (4) **Nearby area of the canal/drain should be cleaned up:** Nearby area of the canal/drain in the picnic spot should be cleaned up so that drain water of the Tezpur town will flow to the river properly.
- (5) **Temporary shops should be given a particular area to set up:** Temporary shops should be given a particular area in the Picnic spot to set up so that the shops won't occupy the area of road to set up and roads won't be conjusted.
- (6) **Proper car parking area should be given to park cars, buses, etc:** Proper car parking area should be given in the picnic spot so that the tourists will park their bikes, cars, buses, etc. At a particular area.
- (7) **Proper sign board should be placed:** Proper sign board should be place at the place of significance in the picnic spot. For example- If dustbin will be provided at the area of the picnic spot and a signboard is placed near the dustbin where it will be written that "Please use the dustbin and don't throw waste materials anywhere" so that tourists will use the dustbin and won't throw the waste material anywhere. And the area of the picnic spot will remain clean. Sign board should be like- Keep Tezpur clean, Save nature, Go green, live eco-friendly live, Be kind towards nature, Cleanliness is the Life style, etc...
- (8) **Police Security should be provided:** Police Security should be provided in the picnic spot so that tourist will feel safe and in case of any violent condition police will take the necessary action.
- (9) **Traffic police should be appointed:** More traffic police should be provided to the area so that to avoid the traffic jam.

(10) **Appointment of a manager:** People should be appointed as a manager to look over the whole activity of the tourist and area of the picnic spot.

**Statistical Data of Prashanti Tourist Lodge Tezpur for the Year 2011**

Sl. No.	Month	Tourist		Total
		Domestic	Foreign	
1.	January	228	12	240
2.	February	227	19	246
3.	March	277	04	281
4.	April	322	02	424
5.	May	511	02	513
6.	June	318	04	322
7.	July	266	02	268
8.	August	214	07	221
9.	September	311	03	314
10.	October	466	12	478
11.	November	311	08	319
12.	December	361	08	369
<b>Total</b>		<b>3912</b>	<b>83</b>	<b>3995</b>

Source: Assam Tourism, Tezpur

**Statistical data of prashanti tourist lodge tezpur for the year 2013**

Sl. No.	Month	Tourist		Total
		Domestic	Foreign	
1.	January	238	04	242
2.	February	183	15	198
3.	March	433	07	440
4.	April	414	10	424
5.	May	361	02	363
6.	June	330	Nil	330
7.	July	389	Nil	389
8.	August	219	Nil	219
9.	September	315	02	317
10.	October	400	06	406
11.	November	423	05	428
12.	December	548	15	563
<b>Total</b>		<b>4253</b>	<b>66</b>	<b>4319</b>

Source: Assam Tourism, Tezpur

If we look at the above tables, then we will see that the tourist inflow is increasing year by year. Though it's a good sign for tourism industry because as the inflow of tourists increases the income from them also increases. The income ultimately helps to the economic development of a region or a country.

**Relationship between environment and tourism:**

The relationship between environment and tourism is a very closed one. Many features of the environment are attractive for tourist. Tourist facilities and infrastructure comprises one aspect of built environment. Tourism development and use of an are generated environmental impacts. It is essential that the relationship be understood in order to develop and manage the resources concerned properly.

### **Negative impacts caused by tourism in tezpur:**

- 1) Water Pollution:** If a proper sewage disposal system has not been installed for a hotel or other tourist facilities, there may be pollution of ground water from the sewage. Though, our Tezpur town is situated in the bank of the Brahmaputra river there is of high causes of water pollution as there is a lack of proper drainage system.
- 2) Air Pollution:** Tourism is generally considered as clean industry, but air pollution from tourism development can result from excessive vehicular traffic used by and for the tourist attraction site. Also pollution in the form of dust and dirt in the air way is generated from open area if the tourism areas are not properly planned and developed in Tezpur.
- 3) Noise Pollution:** Noise generated by tourists, tourist vehicles and sometimes by certain types of tourists attraction such as amusement parks or cars, motor-cycle may sometimes reach uncomfortable and irritable levels of sound.
- 4) Visual Pollution:** Carelessly designed hotels and other tourist facilities, buildings may be incompatible with the local architectural style or scale. Badly planned layout of tourist facilities inadequately or inappropriately landscaping, excessive use of large advertising science and core maintenance of buildings and landscaping may result in a unattractive environment for both tourists and local people.
- 5) Over Crowding and Congestion:** Over crowding by tourists specially at proper tourist results in environmental problems which can lead to resentment on the part of the residence of an area.
- 6) Land Use Problem:** According to good planning principles, tourism development should not pre-empt land which is more valuable for other type of use such as agriculture, residential or recreational occupation or perhaps should remain under strict conservational control.
- 7) Ecological Disruption:** Several types of ecological problems can result from uncontrolled tourism. For example- killing or stunting the growth of vegetation in park or conservational area by many tourists.
- 8) Environmental Hazards:** Core sitting and engineering designs of tourists facilities as with any type of development can generate landslide, flooding, sedimentation of rivers etc resulting from removal of vegetation, disruption of natural damage, canals etc.
- 9) Damage To historical and Archiological Sites:** Overuse or misuse of environmentally fragile archaeological or historic sites can lead to damage of this features through excessive wear, vibration and vandalism (damaging of archaeological monuments).
- 10) Improper Waste Disposal:** Littering of debris on the landscape is a common problem in Tezpur. Because of the large number of people using the area and the kinds of activities they engaged in. Improper disposal of solid waste from hotels or restaurants can generate litter and environmental hazards,

health problems from vermin, disease and pollution as well as being unattractive.

### **Conclusion:**

Different kinds of tourism activity effects the natural and man-made environment. There is a complex interaction between tourism and environment. There are some negative impacts of tourism on the environment. For example- Jahaj-ghat and Rudra-pada etc are some spots of Tezpur which are suffering wear and tear from visitors. In its broadest definition environment refers to the physical environment which is comprised of natural and built components.

The natural environment is what exists in nature like climate and weather, water features, mountains, forests, wildlife etc and built environment in manmade physical features mainly all types of buildings and other structures. To avoid these negative impacts of tourism industry of the Tezpur town we can take different measures. Though, its not possible to stop the pollution, but it is possible to avoid the pollution to some extent by adopting the recommendations mentioned above in this paper.

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### **References :**

1. Chaudhary, M. 2010. "Training Men to Manage Tourism." Yojana 54: 8-10.
2. Chaturvedi, D. 2010. "Tourism in India: Ensuring Buoyancy and Sustainability." Yojana: 5-7.
3. Das, S. 2010. "Charai Shandhanat Majulioy." Prantik. 29(21): 28-0.
4. Das D. 2012-2013. "Prospects and Problems of Tourism Industry in Assam".
5. Manju Yadav" Ecology"
6. Arun K. Tripathi " Environmental Studies"

## **A Study of Personality of Hardened Prisoners and Casual Prisoners**

\* Himsuta A. Jani

\*\* Pragna Parikh

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**Abstract-** *The aim of the study is to know the Personality of Hardened Prisoners and Casual Prisoners. The sample consisted of 60 Hardened Prisoners and Casual Prisoners. Out of which 30 were Male Prisoners and 30 were Female Prisoners. For this purpose of investigation "Rorschach ink block test" By Dr. Dwarka Prasad and Prof. Suresh Parekh. Gujarati edition of this test translated by Prof. Suresh Parekh and Dr. Dinesh Panchal was used. The obtained data was analyzed through 't' test to know the mean difference between Hardened Prisoners and Casual Prisoners. The results show that there is no significant mean difference in Personality of Hardened Prisoners and Casual Prisoners and there is a significant difference in Personality of Male and Female Prisoners.*

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**Keywords:** Personality, Prisoners, Special Housing Units, Social Contact

**Introduction:** "Prisoner" is a legal term for a person who is imprisoned. In section 1 of the Prison Security Act 1992, the word "prisoner" means any person for the time being in a prison as a result of any requirement imposed by a court or otherwise that he be detained in legal custody.

"Prisoner" was a legal term for a person prosecuted for felony. It was not applicable to a person prosecuted for misdemeanor. The abolition of the distinction between felony and misdemeanor by section 1 of the Criminal Law Act 1967 has rendered this distinction obsolete.

Among the most extreme adverse effects suffered by prisoners, appear to be caused by solitary confinement for long durations. When held in "Special Housing Units" (SHU), prisoners are subject to sensory deprivation and lack of social contact that can have a severe negative impact on their mental health. Long durations may lead to depression and changes to brain physiology. In the absence of a social context that is needed to validate perceptions of their environment, prisoners become highly malleable, abnormally sensitive, and exhibit increased vulnerability to the influence of those controlling their environment. Social connection and the support provided from social interaction are prerequisite to long-term social adjustment as a prisoner.

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Long-term stays in solitary confinement can cause prisoners to develop clinical depression, and long-term impulse control disorder. Those with pre-existing mental illnesses are at a higher risk for developing psychiatric symptoms. Some common behaviours are self-mutilation, suicidal tendencies, and psychosis.

A psychopathological condition identified as “SHU syndrome” has been observed among such prisoners. Symptoms are characterized as problems with concentration and memory, distortions of perception, and hallucinations. Most convicts suffering from SHU syndrome exhibit extreme generalized anxiety and panic disorder, with some suffering amnesia. In this study we try to measure Personality of Hardened Prisoners and Casual Prisoners.

**Research Problem:** The research problem of this study is “Personality of Hardened Prisoners and Casual Prisoners”.

**Objectives:**

- (1) The purpose of the present study was the difference related to Personality of Hardened Prisoners and Casual Prisoners.
- (2) The purpose of the present study was the difference related to Personality of Male and Female Prisoners.

**Hypothesis:**

- (1) There is no significant mean difference between Hardened Prisoners and Casual Prisoners in relation to Personality.
- (2) There is no significant mean difference between Male and Female Prisoners in relation to Personality.

**Method:**

**(A) SAMPLE:** The sample of the present study consisted of consisted of 60 Hardened Prisoners and Casual Prisoners. Out of which 30 were Male Prisoners and 30 were Female Prisoners.

**(B) TOOL:** In the present study to measure Personality “Rorschach ink block test” By Dr. Dwarka Prasad and Prof. Suresh Parekh. Gujarati edition of this test translated by Prof. Suresh Parekh and Dr. Dinesh Panchal was used.

**Statistical Strategy:** ‘t’ test was applied to know the significant differences between Hardened Prisoners and Casual Prisoners.

**Result and Discussion:**

**Table – 1: Mean, S.D. and ‘t’ Value of Personality of Hardened Prisoners and Casual Prisoners**

Group	N	Mean	S.D.	‘t’ Value	Level of Sign.
Hardened Prisoners	30	42.21	20.38	0.70	NS
Casual Prisoners	30	43.58	16.55		

**Table No. I** shows the Personality of Hardened Prisoners & Casual Prisoners. For Hardened Prisoners the mean is 42.21 for Female Prisoners the mean is 43.58 and S.D. is 20.38 and 16.55 for both groups ‘t’ level value is 0.70



which is not significant.

**Table – 2: Mean, S.D. and ‘t’ Value of Personality of Male and Female Prisoners**

Group	N	Mean	S.D.	‘t’ Value	Level of Sign.
Male	30	34.85	14.36	2.41	0.05
Female	30	39.24	19.73		

**Table no. II** shows the Personality of Male & Female Prisoners. For Male Prisoners the mean is 34.85 for Female Prisoners the mean is 39.24 and S.D. is 14.36 and 19.73 for both groups ‘t’ level value is 2.41 which is significant at 0.05 level of significant.

### Conclusion:

- (1) There was no significant mean difference in Personality of Hardened Prisoners and Casual Prisoners.
- (2) There was a significant difference in Personality of Male and Female Prisoners.

### References :

1. Aidan, Sammons, (2006), “Eysenck’s theory of the criminal Personality”, Psychlothon.org.uk.
2. Allport, C.W. (1937), “Personality : A Psychological Interpretation” New York, Holt, Rinehart and Winston.
3. American Psychiatric Association (1994). “Diagnostic and Statistical Manual of Mental Disorders”, (4th Ed.) Washington, DC : Author.
4. Brent, Snook and Others, (2007), “Criminal Profiling belief and Use: A study of Canadian Police officer Opinion”, The Canadian journal of police & security services Volume 5 Issue 3/4, 1-11.
5. Gudoni, Lauren C., (2009), “The interaction between personality traits and contextual disadvantage on criminal behavior: a longitudinal study of high risk-females”, Unpublished dissertation, University of Kentucky.
6. Listwan, Shelley Johnson, (2001), “Personality and criminal behavior: reconsidering the individual”, Unpublished Ph.D. thesis, Wright State University.
7. Mats, Fridell , Morten, Hesse and others, (2008), “Antisocial personality disorder as a predictor of criminal behaviour in a longitudinal study of a cohort of abusers of several classes of drugs: Relation to type of substance and type of crime”, Science Direct, Addictive Behaviors 33, 799 – 811.
8. Saini, (2011). “Personality and Treatment Pattern of Alcoholism”, Indian Journal of Psychology and Mental Health, Vol. 5(2), 226-228.

## Procedure of Population Census

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**Abstract-** *The decennial Census of India has been conducted 15 times, as of 2011. While it has been conducted every 10 years, beginning in 1872, the first complete census was taken in the year 1881.[1] Post 1949, it has been conducted by the Registrar General and Census Commissioner of India under the Ministry of Home Affairs, Government of India. The entire census since 1951 is conducted under 1948 Census of India Act. The last census was held in 2011 and next census will be held in 2021. The Census of India prior to independence was conducted periodically from 1865 onward to 1947. The censuses were primarily concerned with administration and faced numerous problems in their design and conduct ranging from absence of house numbering in hamlets to cultural objections on various grounds to dangers posed by wild animals to census personnel. The censuses were designed more for social engineering and to further the British agenda for governance rather than to uncover the underlying structure of the population. The sociologist Michael Mann says that the census exercise was "more telling of the administrative needs of the British than of the social reality for the people of British India." [1] The difference of the nature of Indian society during the British Raj from the value system and the societies of the West were highlighted by the inclusion of "caste", "religion", "profession" and "age" in the data to be collected, as the collection and analysis of this information had a considerable impact on the structure and political overtones of Indian society.*

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**Key Word:** Census, Commissioner of India, Social Engineering, Population

**Meaning and Concept:** A population census is the total process of collecting, compiling, evaluating, analysing and publishing or otherwise disseminating demographic, economic and social data pertaining, at a specified time, to all persons in a country or in a well delimited part of a country. A population census, by the definition customary today, is a complete process of collection, reception, assessment, analysis, publication and distribution of demographic, economic and social data, which relate, at a given moment in time, to all the residents of a country or of a well-defined partial geographic area. Censuses are usually taken every 10 years. Population Census provides information about age, sex, occupation, residence etc. of people living in a particular country at a specific time. The earliest literature 'Rig-Veda' reveals that some

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kind of population count was maintained in during 800-600 BC in India. The celebrated 'Arthashastr' by 'Kautilya' written in the 3rd Century BC prescribed the collection of population statistics as a measure of state policy for taxation. It contained a detailed description of methods of conducting population, economic and agricultural censuses. During the regime of the Mughal king Akbar, the administrative report 'Ain-e-Akbari' included comprehensive data pertaining to population, industry, wealth and many other characteristics.

A systematic and modern population census, in its present form was conducted non synchronously between 1865 and 1872 in different parts of the country. This effort culminating in 1872 has been popularly labeled as the first population census of India. However, the first synchronous census in India was held in 1881. Since then, censuses have been undertaken uninterruptedly once every ten year. The Census of India 2001 was the fourteenth census in the continuous series as reckoned from 1872 and the sixth since independence. The gigantic task of census taking was completed in two phases. In the first phase, known as House -listing Operations, all building and structures, residential, partly residential or non- residential were identified and listed and the uses to which they were put recorded. Information on houses, household amenities and assets were also collected. In the second phase, known as Population Enumeration, more detailed information on each individual residing in the country, Indian national or otherwise, during the enumeration period was collected. At the Census 2001, more than 2 million (or 20 lakh) enumerators were deployed to collect the information by visiting every household. The Indian Census is one of the largest administrative exercises undertaken in the world.

Ram Bhagat points out that a demographic census is an exercise in the classification of a population and it is inherently constrained. An example of this is that the questions asked require non-overlapping responses, and both the questions and the lists of response options are guided by preconceptions resulting from political desires or needs. The political forces may emanate from within the government machine or from interest groups that seek recognition and self-advantage. The questions and available responses, as well as the statistical and logistical methods, change over time, and the same can be true of geographical boundaries and of population identities, such as race and nationalities. However, as well as being an administrative tool, a series of censuses can act as a coalescent of the population or at least of parts of it, causing various groups within the whole to form identities in space and over time. The ability of people to classify themselves can both reinforce and create classifications with which they identify

**Stages of expediting the census:** Conducting a census is a most complex undertaking, and therefore meticulous planning of each detail is required in the census process - in the methodological, contents and technological fields, as well as the organizational and administrative aspects. Great importance

and a special emphasis are placed on planning and prior preparation when planning the execution of a census, preparation that includes many tests and repeated trials. Census activities can be divided into three main stages: (i) The planning stage. (ii) The stage of data collection. (iii) The stage of producing the results.

**The planning stage:** planning and preparation towards data collection this stage is critical. During this stage, and especially at its beginning, the purpose and methodology of the census are determined, the main strategic decisions are made, and intermediate goals are defined, whose achievement makes the realization of the final goals possible. A great emphasis is put on the development of methods and means designed to achieve the goals of the census.

**The stage of data collection:** data collection during this stage data on the census population is collected, by direct contact with the residents and/or through information found in administrative resources. This is the most intensive stage, especially if the data collection in the field is extensive. This stage requires complex logistic preparation and is conducted in a relatively short period of time (several months). In order to achieve good results during the process of collecting data from the population and a high level of quality of the data collected, there is a need for both a publicity campaign to enlist the cooperation of the public, as well as a high level of skills in the field operation.

**The stage of producing the result:** producing the results; including receipt, processing, estimation, analysis, publication and distribution of the census data This stage is long and complex, from a professional viewpoint. During this stage three major activities occur simultaneously: Preparation of the final file of the census data (including receipt of the information, identification and correction of errors, editing of the data collected, imputation of missing data and calculation of estimates). Production of products by which the findings of the census are published and distributed, in the form of various statistical summaries and their analyses, or as files of anonymous individual records. Conducting activities of data assessment, from which a picture results of the extent of coverage of the population and the quality of the information produced

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#### References :

1. Agarwal, S.N. (1965), India's Population Problem, Asia Publishing House, New Delhi.
2. Bhande, A.A. and Kanitkar, J. (1988), Principles of Population Studies, Himalayan Publishing House, Bombay.
3. Chand, M. and Puri, V.K. (1990), Regional Planning in India, Allied Publishers Ltd., New Delhi.
4. Chandna, R.C. (1994), A Geography of Population, Kalyani Publishers, New Delhi.
5. ICSSR (1976), A Survey of Research in Economics, Vol. II, Micro-economics, Allied Publication, New Delhi.

## **Economic condition of the farmers in the post liberalised Indian agriculture**

**\* Priya Kumari**

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**Abstract-** *Indian agriculture is the backbone for the Indian economy because it provides food not only to the people engaged in agricultural sector but also to people engaged in non-agricultural sectors at very cheap price which is against the interest of food producers. These are the food producers who get very low wage or subsistence wage or marginal wage or wage that is just enough to survive. Government takes care of non-food producers, on the cost of real food producers, when she decides price of agricultural products. It shows that farmers are working for people who are engaged either in industry or service or in both sectors. Agricultural sector plays a very important role in the economy of India. It accounts 16.00 per cent in the national income of India. It provides job to more than one half of the Indian population. It shares 18.00 per cent in India's export. It is the agricultural sector in India which balance of trade is positive since 1951. It is the agricultural sector in India which is having largest consumer basket. Indian agriculture is characterized for sowing three crops namely Kharif, Rabi and Zaid in an agricultural year starting from 1st July to 30th June. The present study carries out the three objectives. First, it examines an assessment of the economic conditions of the Indian farmers and second in what ways the Green revolution and the Agricultural Trade Liberalisation of the Indian economy has affected their fortunes. The economic condition of Indian farmer is not satisfactory. Their earnings are much lower than industrial and services sector. However, their earnings are showing a trend of improvement because both the Green revolution and the trade liberalisation have increased the agricultural productivity.*

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**Keywords: Economic Condition, Farmers, Indian agriculture, Economy**

Indian agriculture is the backbone for the Indian economy because it provides food not only to the people engaged in agricultural sector but also to people engaged in non-agricultural sectors at very cheap price which is against the interest of food producers. These are the food producers who get very low wage or subsistence wage or marginal wage or wage that is just enough to survive. Government takes care of non-food producers, on the cost of real food producers, when she decides price of agricultural products. **It shows**

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**that farmers are working for people who are engaged either in industry or service or in both sectors.** Agricultural sector plays a very important role in the economy of India. It accounts 16.00 per cent in the national income of India. It provides job to more than one half of the Indian population. It shares 18.00 per cent in India's export. It is the agricultural sector in India which balance of trade is positive since 1951. It is the agricultural sector in India which is having largest consumer basket. Indian agriculture is characterized for sowing three crops namely Kharif, Rabi and Zaid in an agricultural year starting from 1<sup>st</sup> July to 30<sup>th</sup> June.

Developing countries are known for dominance of agricultural sector for where both disguised and open agricultural labourers work for livelihood it is the only source for their earnings. However, liberalisation has brought crop diversification and commercialization of Indian agriculture. It opened new source of income and employment.

It is well known fact that the contribution of agricultural sector in the GDP, national income and in employment decreases over the period with economic development. It is true that the contribution of Indian agricultural sector in GDP and in national income is decreasing but this sector is still unable to reduce the agricultural employment as fast as share in national income. Therefore, one can say that India is able to get partial characteristics of development because contribution of agricultural sector in national income is decreasing with require rate but its contribution in employment is not decreasing with required rate. It also infers that dependence of India on agriculture for earning is decreasing but not for employment. India is still dependent on agriculture for employment.

#### **Objectives and Methodologies:**

The present study carries out the **two objectives**. **First**, it examines an assessment of the economic conditions of the Indian farmers and **second** in what ways the **Green revolution** and the **Agricultural Trade Liberalisation** of the Indian economy has affected their fortunes and suggestions.

On the basis of the Secondary data, collected from various sources, the present study makes an effort to access the economic conditions of the Indian farmers. An effort has been made to find out the reasons of bad economic conditions which enforce Indian farmers to commit suicide. The present study devotes its focus on Green revolution and Agreements on Agriculture of WTO

#### **Economic Conditions of Farmers:**

The Farmer is the only man in India economy who buys everything at retail and sells everything at wholesale but pays the freight both ways. There are around 55.00 crores of farmers in India (**NSSO-2009**). Agriculture is the largest unorganised sector in India, with 57.00 per cent of India's total population and 73.00 per cent of India's total employment. However, the economic condition of Indian farmers is bad which enforces them to live in either debt or to commit suicide. A comparative view of the economic condition

of farmers among India, China and USA has been shown in table-1.1.

**Table-1.1**

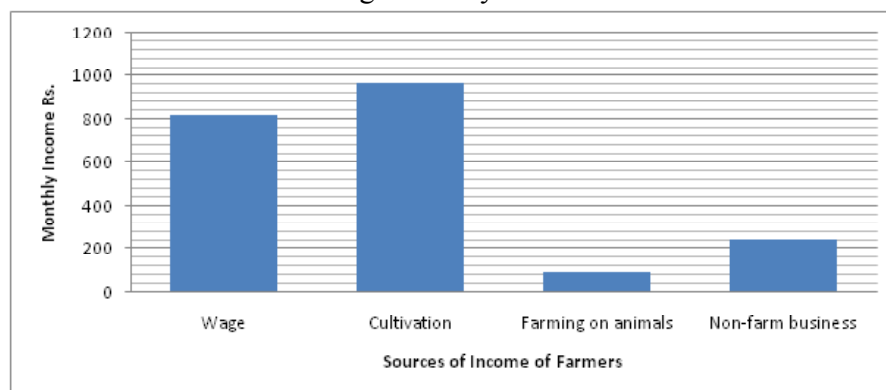
Economic Differences among Farmers of India, USA and China

Particulars	India	USA	China
Size of holdings	Dominated by Small holding	Dominated by large holdings	Existence of both small and large
Farming techniques	Traditional	Modern	Modern
Income	Low	High	Low but more than India
Suicide	High	Very low	Low

**(i) Low Average Monthly Income:**

The level of living and the quality of life of farmer household were much lower than the other households (NSSO, 66<sup>TH</sup> Round, 2009-10). The average monthly income of Indian farmers was Rs. 2115 in 2002 which rose to Rs. 3750 in 2012. This monthly income of farmers comprises wages, cultivations, farming on animals and non-farm business. The average income of farmers from these sources varied between Rs. 91 to 969 as shown as in the chart.

Chart1.1: The average monthly income of India in 2002



Data Source: NSS Report No.497: Income, Expenditure and Productive Assets of Farmer Households

**Table-1.2**

Farmer's Average Monthly Income According to Sizes of farm in 2002

Farm size	Monthly Income
Less than 0.01 hectare	1380
0.01-0.04	1633
0.041-1.00	1809
1-2	2493
2.01-4.0	3589
4.01-10.0	5681
More than 10.0	9667

Data Source: NSS Report No.497: Income, Expenditure and Productive Assets of Farmer Households.

(ii) 62.00 per cent of total farmers hold land less than 1.00 hectare while 1.00 per cent of them hold land more than 10.00 hectares. Small and marginal farmers account for more than 80% of total farm households. But their share in operated area is around 44%. Thus, there are significant land inequalities in India. 48.6 per cent of total farmers are in debt (NSSO, 2003)

(iii) The plight of farmers will be evident from the fact that the farmers with an average farm size of 3.79 hectares, growing wheat and rice are able to earn an income which is less than the starting salary of a class IV employee (peon in Government) National Commission for Enterprises in the Unorganised Sector (2007).

(iv) The low income and high indebtedness enforced farmers to commit suicide. In the Maharashtra State in India, which accounts 27.57 per cent share in total committed suicide in India in 2012 as shown as in table-6.2.

(v) India is an agrarian country with around 60% of its people depending directly or indirectly upon agriculture. Agriculture in India is often attributed as *gambling with monsoons* because of its almost exclusive dependency on precipitation from monsoons. The failure of these monsoons can lead to a series of droughts, lack of better prices, and exploitation of the farmers by middlemen, all of which have led to a series of suicides committed by farmers across India (Shiva,2013)

**Table-1.3**  
**Share of States in suicides committed by Farmers in India**

States	No. of Suicide	Suicide share in India
Maharashtra	3786	27.59
Andhra	2572	18.74
Karnataka	1875	13.66
M.P.	1172	8.54
Kerala	1081	7.88
U.P.	745	5.43
Gujarat	564	4.11
Tamilnadu	499	3.63
Others	1424	10.38
Total	13718	100

Source: National Crime Records Bureau, 2012

**Impact of Green Revolution:** Green revolution brought both the positive and negative impact on farmers.

**(a) Positive Impact:**

**Green revolution has** increased per capita income of the farmers. It increased non-farm business activities through backward and forward linkages because demand for manufacturing products and services increased. It improved the nutritional intakes of the farmers. It improved living standard of farmers and their family members. It brought positive impact in the following ways.

(i) Green revolution increased the agricultural productivity in India.



- (ii) Economic situation of Indian farmers improved because of better market value of agricultural products.
- (iii) Mechanisation of agricultural activities and management of Pest & insects improved the working conditions of Indian farmers.
- (iv) Both the cropping pattern and cropping intensity improved which indicates that green revolution helped in better land utilization.
- (v) Disease fighting capability of crops was improved by green revolution.
- (vi) It reduced poverty level.
- (b) Negative Impact:**
  - (i) **Land degradation had been** increased by rise in cropping pattern, cropping intensity and chemicals. It decreased the land fertility.
  - (ii) **Heavy increase in crop rotation** increased the weeds.
  - (iii) **Bio diversity loss** took place because use of chemical pesticides, insecticides and fertilizers killed bird and land fertility friendly insects.
  - (iv) Chemicals which were used for increase the agricultural productivity, contaminated water to be used by farmers and it badly affected the health of the farmers.
  - (v) Water level in land went down substantially.
  - (vi) Green revolution resulted in environmental degradation and increased income inequality.
  - (vii) Owners of large farms were the main adopters of the new technologies because of their better access to irrigation water, fertilizers, seeds, and credit. Small farmers were either unaffected or harmed because the Green Revolution resulted in lower product prices, higher input prices, and efforts by landlords to increase rents or force tenants off the land.

#### **Impact of Agricultural Trade Liberalisation:**

India has been able to achieve only 40.00 per irrigated area and remaining 60.00 per cent is still dry land. Incremental capital output ratio is rising over the period but percentage investment of GDP has been declining. Therefore, the inherent characteristics of Indian agriculture need large scale Government support in the areas of research extension, water and land management, infrastructure, post-harvest management, rural credit and agricultural risk management to sustain the growth and attain competitiveness. Indian farmers were expecting that the price of agricultural products in the international market would rise when developed countries shall reduce both the domestic supports and export subsidies according to the provisions of Agreements of Agriculture (AOA) of WTO. But it could not happen and price of agricultural products in the international market declined. It reduced the earnings of the Indian farmers.

- (i) The product specific AMS (aggregate measurement of support) of India is negative and the non-products specific AMS is below than *de minimis* level of 4.85 per cent of the base year 1986-88. It helped Indian farmers

to have domestic supports as before of AOA of WTO. It enabled India to extend non-product specific supports like subsidies on research, extension, pests, disease control, electricity, water, fertilizers, seeds and so on.

- (ii) Indian farmers are given internal and international transport subsidies and handling & processing charges to reduce marketing costs of agricultural exports.
- (iii) India also has several other options like imposition of anti-dumping and countervailing duties, safeguard duties as also imposition of temporary QRs under the Agreements on Subsidies and Countervailing Measures and Agreement on Safeguards to prevent surge in import of any product.

### **Conclusion:**

The occupational structure of India entails that the agricultural sector accounts 53.00 per cent, the industrial sector comprises 19.00 per cent and the service sector shares 28.00 per cent in 2011. It clearly indicates that 53.00 per cent labourers of total labour force are food producers who are producing foods not only for themselves but also for remaining people. One should think here why the economic condition of these people engaged in agricultural sector is worst or comparatively much lower than people engaged in industry and service sectors. **First** and foremost reason behind it is that agricultural labourers get prices of their products much lower than non-agricultural labourers get prices of their products. **Second**, agricultural labourers get wages much lower than non-agricultural labourers.

The income structure of India delves that the agricultural sector contributes 16.00 per cent, industry sector accounts 24.00 per cent and service sector shares 60.00 per cent in national income of India in 2011.

The study finds flowing facts about the Indian agriculture.

- (i) The economic condition of Indian farmer is not satisfactory. Their earnings are much lower than industrial and services sector. However, their earnings are showing a trend of improvement because both the Green revolution and the trade liberalisation have increased the agricultural productivity.

### **Suggestions:**

- (i) Multiple Sources of Farm Income should be created in India to save farmers from committing suicide.
- (ii) Small farmers should be encouraged to work in group.
- (iii) Soil Health and Fertility should be restored in India.
- (iv) Watershed Development and Moisture Conservation should be encouraged.
- (v) Irrigation investment should be taken care off.
- (vi) Improved quality and productivity of seeds should be used.
- (vii) Horticulture, Poultry, Livestock, Sericulture and Dairy farming should

be encouraged.

- (viii) Storage capacity and marketing with right price should be encouraged.
- (ix) Investment in agricultural infrastructure, education, extension service, new technology should be encouraged.

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#### References :

1. Acharya S.S.(2001), “ Terms of Trade for Agricultural Sector in India at the State Level “ published in Indian Agricultural Policy at the Cross Roads by Chaudhary D.P. , Rawat Publishers, New Delhi
2. Aggarwal M. (2003), “Economic Participation of Rural Women in Agriculture”, Published in Economic Empowerment of Rural Women in India, by Gopal Singh, RBSA Publication, Rajasthan
3. Amartya Sen. 1981. Poverty and Famines: An Essay on Entitlement and Deprivation. Oxford University Press.
4. Balkrishnan , P.(2000), “ Agriculture and Economic Reforms: Growth and Welfare, EPWE, 35(12)
5. Chand R. ( 2002), “ The Trade Liberalisation, WTO and Indian Agriculture: Experience and Prospects, Mittal Publications
6. Chand R. and Bajar S. ( 2012), “ Agricultural Trade Liberalisation Policies in India: Balancing Producer and Consumer Interests”, in Twenty years of India’s Liberalisation : Experiences and Lessons by Rashmi Banga, UNCTAD
7. Freebrain D.K. (1995), “ Did the Green Revolution Concentrate Income? A Quantitative Study of Research Report” , World Development, Vol. 23, pp-265-279
8. Gulati A. and Kelly T. ( 1999), “ Trade Liberalisation and Indian Agriculture”, Oxford University Press
9. Hoda A. (2002), “ WTO Agreements on Agriculture and India” published in WTO Agreements and Indian Agriculture, Social Science Press
10. Sarris, A.(2001), The Role of Agriculture in Economic Development and Policy Reduction: A n Empirical and Conceptual Foundation, World Bank, Rural Development Strategy Background Paper, No.2
11. Shiva V. (1991) “ Most Farmers in India are Women”, FAO, New Delhi
12. Shiva, Vandana (2013), ”Why Are Indian Farmers Committing Suicide and How Can We Stop This Tragedy?”. Voltaire Network. Retrieved 14 April 2013

## **Changing Dimensions of HRM in Globalised Era (An Empirical Study to Job Satisfaction of Teachers in Management Institute Rewa Region)**

\* Kripa Shankar Tiwari

\*\* Aradhna dubey

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**Abstract-** *A teacher, who is happy with his job, plays a pivotal role in the upliftment of society. Well adjusted and satisfied teacher can contribute a lot to the well being of his/her pupils. A dissatisfied teacher can become irritable and may create tensions which can have negative influence on the students' learning process and it consequently affects their academic growth. Job satisfaction implies the overall adjustment to work situation. Teachers having favorable attitude towards their profession are generally successful, properly adjusted and well satisfied with their job. Conducting a study on the teachers of Business schools in Indore city concluded that attitude towards teaching improves if they have job-satisfaction. The research evidence suggests that adequate compensation and safe and supportive working environments serve to attract and retain teachers, whereas low pay and poor working conditions undermine teachers' long-term commitment to their jobs. This section examines several indicators related to teacher working conditions, including their salaries, perceptions of their work environments, overall job satisfaction, and willingness to continue to teach.. It concludes by looking at how various aspects of teacher work environments are linked to their long term commitment to teaching as a career and profession.*

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**Keys Words:** Job, Upliftment, Dissatisfied, Adequate, Commitment, Perceptions.

**I. Introduction:** True education, it must be noted at the outset, is a powerful force in bringing about desired change. It is education and education alone that can bring about changes in knowledge, skills, attitudes, appreciations and understanding things around us. The keystone in the educational edifice is doubtless the teacher. On him depends much more than any other, the progress and prosperity of children? Nobody can effectively take his place or influence children in the manner and to the degree; it is possible, for him alone to do. It is strongly believed that to be a teacher is to be the member of a holy order. The definitions of Education formulated by a group of experts

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for the dictionary of education stressed two important things in education. Firstly, education is a process, which should develop the required ability, attitude and other forms of behaviour for the full development of the personality.

Undoubtedly any philosopher can comment that the ultimate aim of any education is to make a man of good character and useful citizen of the universe. This of education we can achieve through the quality of education, quality of teachers and quality of teaching learning process. Other things remaining, the quality of education largely learning transaction cannot be undertaken in vacuum but it is positively directed action, for which teachers are to be endeavor with satisfaction towards a job and the need of possessing the quality change-prone. The teacher's role is thus as important as his responsibility is onerous. Therefore there is a strong need in the society to focus on the significance to Teacher Job Satisfaction.

Many research efforts have been directed on teaching competency but unfortunately much attention of research is not drawn to correlate teaching competency in relation to Teacher Job Satisfaction. Rao, R.B. (1989) says that 'the quality or effectiveness of teachers is considered to be associated with his satisfaction towards his profession, his satisfaction with his values. Fontana, D. (1986) regarded that 'if the teacher is too rigid or has a doctrinaire belief of that his methods are right and those of any one who disagrees with him are wrong, then he will be depriving his children of a range of possible learning experiences, to their disadvantage and to his own'. Thus, it is clear that an effective and competent teacher will achieve the desired learning outcomes, provided if he satisfied in his profession. The Indian Education Commission (1964-66) also states that 'nothing is more important than providing teachers best professional preparation and creating satisfactory conditions of work in which they carefully be effective.' Sand Frankiewicz (1979) found a positive.' Sand Frankiewicz (1979) found a positive relationship between job satisfaction and effective teacher behaviour.<sup>1</sup> In the light of the above the theoretical framework of teacher job satisfaction may be considered as one of the important factors, which can enhance teaching competency. Accomplishment of the goals of education and the objectives of teaching is possible when teachers are competent in teaching with satisfaction in their profession. These two variables are conceptually independent and practically interactive.

B.R. Rao (1989) rightly pointed out the quality or effectiveness of a attitudes towards his profession, his satisfaction with his values and adjustment in the job and professional interest.<sup>2</sup> Similarly Dr. D.S. Kothari (1964-66) advocates 'of all the different factors, which influence the quality of education and its contribution to national development, the quality, competency character and job satisfaction of teachers are undoubtedly the most significant.'<sup>3</sup>

## **II. Objectives of Research:**

1. To explore the factors affecting job satisfaction of Teachers in India and

Abroad through.

2. To conduct a survey on job satisfaction of teachers of management institutes.
3. To identify major factors affecting job satisfaction of teachers.
4. To suggest various tools/measures to increase job satisfaction in teachers.

### **III. Methodology:**

#### **A. Sample Plan**

A sample plan is finite plan for obtaining a sample from a given population. Population size was 30 business schools in number out of which top 6 business schools in Indore were selected. Population included 100 faculty members of the selected B-schools and stratified random sampling was used for this study.<sup>4</sup>

#### **B. Tools of Data Collection:**

The data was collected through Primary and secondary sources. Self designed questionnaire was used for data collection. Secondary data was also collected from journals, magazines and books.

### **IV. Analysis of Data and Interpretation:**

For the collection of the primary data for the purpose of research study, all the management faculties of the selected B-schools were selected and were asked to fill the questionnaire. After the complete collection of data it was analyzed and interpreted. The survey was done on the following factors.

#### **V. Findings:**

- 54% teachers strongly agreed that they get on open and comfortable working environment.
- 69% teachers agree that they got proper salaries.
- 35% teachers agree that they got Good opportunity for growth and development while 35% does not agree.
- 54% teachers agree that they get Good quality of work life.
- 46% teachers agree that there is fair and equal participation in the affairs of management.
- 69% teachers disagree that they get training to do job effectively and efficiently.
- 62% teachers agree that management recognizes and makes use of abilities and skills.
- 54% teachers agree that good Performance appraisal is there.
- 50% teachers agree that good cooperation exist in the department.
- 54% teachers agree that employees work well together to solve problems and get the job done.
- 46% teachers strongly agree that they are encouraged to develop new and more efficient ways to do the work.
- 62% agree that Proper respect is being given by management and people in work.

A. **Recommendations:** Following measures must be adopted by organizations to increase job satisfaction of employees.

1. Offer fair and competitive salaries.
2. Remember that benefits are important too.
3. Clearly define roles and responsibilities.
4. Provide adequate advancement opportunities.
5. Conduct employee satisfaction surveys. To check the pulse of your workplace, conduct anonymous employee satisfaction surveys on a regular basis. One idea : Ask employees what they want more of and what they want less of.
6. Management should create an open and comfortable working environment.
7. There should be fair and equal participation in the affairs of management.
8. Employees should receive the training they need to do their job effectively and efficiently.
9. Management should recognize and makes use of their abilities and skills.
10. They should be treated with respect by management.
11. Employees work well together to solve problems and get the job done.
12. Good cooperation should exist in the department.
13. Performance appraisal should be there.
14. They should be encouraged to make suggestions for improvements in their work.

#### VI. Conclusion:

It is being concluded that for the effective working of an organization its work force should be productive and it can only be done when the workforce or the employees are satisfied with their jobs and when their satisfaction level is at the top they can be retained in a particular organization. Retention is an important concept that has been receiving considerable attention from academicians, researchers and practicing HR managers. In its essence, Retention comprises important elements such as the need or content, search and choice of strategies, goal-directed behavior, social comparison of rewards Reinforcement, and performance-satisfaction. The increasing attention paid towards Retention is justified because of several reasons. Motivated employees come out with new ways of doing jobs. They are quality oriented. They are more productive. Any technology needs motivated employees to adopt it successfully. Several approaches to Retention are available. Early theories are too simplistic in their approach towards Retention. For example, advocates of scientific Management believe that money is the motivating factor. The Human Relations Movement posits that social contacts will motivate workers. Mere knowledge about the theories of Retention will not help manage their subordinates. They need to have contain techniques that help them change the behavior of employees. One such technique is reward. Rewards, particularly money, is a motivator according to need-based and process theories

of Retention. For the behavioral scientists, however, money is not important as a motivator. Whatever may be the arguments, it can be stated that money can influence some people in certain circumstance. Being an outgrowth of Herzberg's, two factor theory of Retention, job enrichment is considered to be a powerful motivator. An enriched job has added responsibilities. This makes the job interesting and rewarding. Job enlargement refers to adding a few more task elements horizontally. Task variety helps motivate job holders. Job rotation involves shifting an incumbent from one job to another.

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**References :**

1. Cordno, C & Middlewood, D (eds.) 2001, Managing teacher appraisal and performance : A comparative approach, Routledge Falmer, London.
2. Chamberlin, RP, Haynes, GS & Wragg, CM 2000, Failing teachers?, Routledge, London. Cizek, GJ (ed.) 2001, Setting performance standards: Concepts, methods, and perspectives, Lawrence Erlbaum Associates, Mahwah. NJ.
3. Dean, J 1992, Inspecting and advising : A handbook for inspectors, advisers, and advisory teachers, Routledge, New York.
4. Gleeson, D & Husbands, C 2001, The performing school : Managing, teaching, and learning in a performance culture.



## Recent Trends in Indian Economy: Goods and Services Tax (GST)

\* Chhibubhai K. Mehta

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**Abstract-** India has well-developed tax structure with clearly demarcated authority between Central and State Government and local bodies. Central Government levies taxes on income, customs duties, central excise and service tax. Value Added Tax (VAT), stamp duty, state excise, land revenue and profession taxes levied by the State Governments. Local bodies are empowered to levy tax on properties, octroi and for utilities like Water supply, drainages. Indian taxation system has undergone tremendous forms during the last decade. The taxes rates have been rationalized and tax laws have been simplified result in better compliance; ease of tax payment and Better enforcement. The process of rationalization of tax administration is ongoing in India.

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**Key Word:** Tax Structure, Central and State Government, Value Added Tax, Goods and Services Tax

**Introduction:** In Indian current scenario, mixed economy play a vast role for growth. About recent trend, the overall direction in which the economy is going to move through the all aspects (FDI, Infrastructure, inflation, banking, joint venture, capital etc.) Recently introduction of GST (Goods and service tax) by the central government is it plays an important role for economy growth or GDP (Gross Domestic product). GST is defined in article 366 (12 A) to mean “any tax on supply of goods and service or Both except taxes on supply of the alcoholic liquor, human consumption” During the winter session of Indian parliament began with parties to helping passage of GST bill for India challenging global times. Goods and Service tax is a key for our GDP, this should send strong signal to the investors (Internal & External) that India’ economy can overcome various global issues and challenges. Indian economy was affected by demands low-down, uncertain geopolitical situations.

**Objective:-Of an overview:**

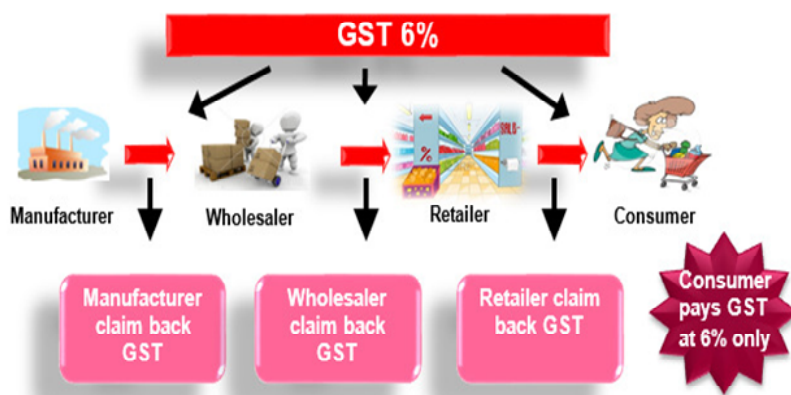
- To understand the concepts and fundamental of GST.
- To understand how GST work in India for economic rapid growth.
- To understand the benefit of GST for consumers and businesses.

**Understanding GST concept and fundamental:** How GST is charged a

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teach level of supply chain – standard Rate (Assume rate GST=6%)\*



GST is to be levied and charged at the proposed rate, but in current scenario proposed lower rate are 17 percent to 18 percent by Chief economic advisor Mr. Arvind Subramanian for concessional goods and higher rate up to 40 percent for luxury goods on the taxable value of supply on businesses is registered under GST. Businesses can apply to be registered firstly. From the press release dated 4 December 2015, Revenue Neutral Rate (RNR) as per proposed.

#### Silent feature of proposed Model:

1. Consistent with the federal structure of the country-CGST and SGST.
2. CGST and SGST are to be paid to the account of center as well as state government separately.
3. CGST and SGST are to be treated separately, normally taxes paid against the CGST shall allow to be taken as Input Tax Credit for CGST and same principle will be applicable for SGST.
4. The administration of the CGST would be center and SGST with state.

#### Rate of GST vs. other Taxes:

The different rate softwares on goods and services is tabulated below:

S.N	Particular	Goods	Service
1	Excise duty	12.50%/6%/2%	-
2	VAT	12.50%/13.50%/14%	-
3	CST (against Form C)	2.0%	-
4	Local Body Tax	0.10% to 8%	-
5	Service Tax	-	14%

#### GST rate structure is tabulated below:

S.N	Particular	Concessional Goods	Standard Goods	Luxury goods
1	GST Rate	12%	17% to 18%	40%

**Taxes that will be subsumed in GST:** GST would be levied on all the transactions of goods and services made for the consideration. In particular, it would replace the following indirect taxes-

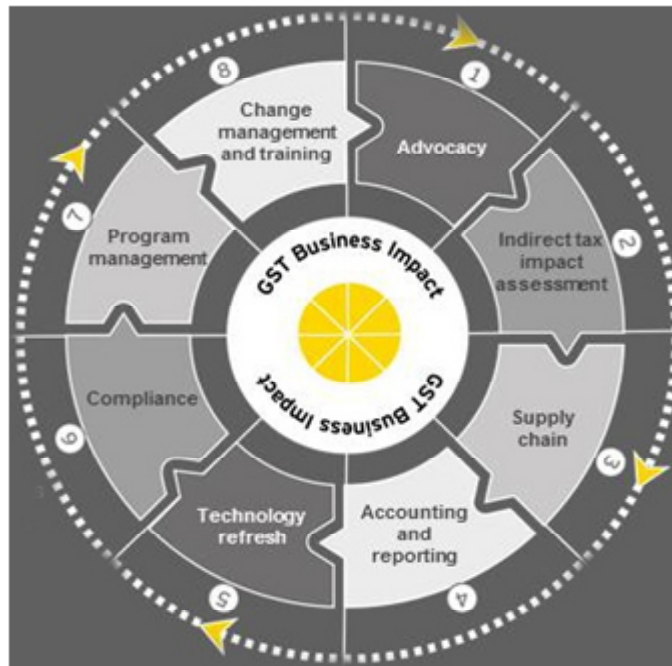
**At Central level:**

1. Central excise Duty (Including additional duties of excise)
2. Service tax
3. CVD (Levied on import in lieu of excise duty)
4. SACD (Levied on imports in lieu of VAT)
5. Central sale tax (CST)
6. Excise Duty levied on Medicinal and Toiletries preparations
7. Such charge and cusses

**At State level:**

1. VAT / sales Tax
2. Entertainment Tax(Unless it is levied by the local bodies)
3. Luxury Tax
4. Entry tax not in lieu of octroi
5. Cusses and surcharges

**GST Business Impact:** GST will have a far-reaching impact on almost all the aspects of the business operations in the country, for instance, pricing of products and services, supply chain optimization, IT, accounting, and tax compliance systems.

**Why GST instead of the other higher tax:**

1. **Sensitize the business ecosystem:** It accepts fact that GST is not merely tax change but a business change as it will impact all functions of an organization.
2. **Lower business cost:** in current scenario businesses pay multiple taxes

and high level soft axon tax. But with GST recovering input tax on raw material and in current expenses and reducing the cost.

3. **Increase the Global competitiveness:** GST incurred on inputs can be recovered along the supply chain all level.
4. **Equity:** With GST, Taxes are leveled fairly among all the businesses involved where they are in the manufacturing, wholesaling, retailing or service sectors.
5. **Transparency:** consumer will get the benefit under GST unlike the present sale tax.

#### **Important steps how Government is actively working on GST:**

1. 122<sup>nd</sup> constitutional Amendment for GST is already passed by Lok Sabha and pending in Rajya Sabha.
2. Contract to manage IT infrastructure already awarded to Infosys.
3. GST law is already drafted and available in public Domain.

#### **Benefit of GST: in prospectus:**

- a) **Benefit to consumer:** All supply chain businesses like suppliers, manufactures, wholesalers and retailers are able to recover GST incurred on input. This will be reducing the cost of doing business, thus enabling fairer prices for consumers. Certain basic good and service are not subject to GST for socio- economic objectives. Include basic food, residential accommodation, education, health service, public transport, domestic consumption etc.
- b) **Benefit to Industry, trade and agriculture:** GST will give more relief to the industry through a more comprehensive and wider coverage of input tax set-off and service tax set-off, subsuming of several central and state taxes in the GST.
- c) **Benefit to the Exporters:** complete set-off of input goods and services and phasing out of CST would reduce the cost of locally manufactured goods and services and this will increase the competitiveness of Indian goods and services in the International marketing and give a boost to Indian exports.

#### **Conclusion:**

This paper only lightly overview about the GST and related point bases on secondary data. GST is reform of Indian taxation. We can say that after the implementations of GST, tax burden on consumer and businesses will be reduce and number of extra taxes will be cover under this model. GST help to improve the transparency in taxation and make a healthy environment to the investors and government policies implementations. GDP growth is depending upon number of aspects in nation but taxation main part because this work as revenue model for the country and necessary for every nation. For growth of Nation and avoidance the double tax burden need to update the tax system, GST play a strong role. Before implementation the GST government have need to study all aspects related to country economy growth

with the point of view of businesses and customers.

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**References :**

1. "New service tax rate of 14 % to come in to effect from June 1". Times of India. 19 May 2015. Retrieved 21 May 2015.
2. <https://articles.economictimes.indiantimes.com>
3. <https://business-standard.com>
4. "Union Budget 2012: GAAR empowers I-T department to deny tax benefits to 'companies'". The Times of India. 2012-03-16.
5. [www.gstindia.com/about/](http://www.gstindia.com/about/)
6. [www.finmin.nic.in/press\\_room/2016/GST\\_FAQ.pdf](http://www.finmin.nic.in/press_room/2016/GST_FAQ.pdf)

## Role of Diaspora in Economic Development

\* Bhavika D. Kariya

\*\* Ranjitsinh G. Parmar

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**Abstract-** *Diaspora means "to scatter" in Greek, but today we use the term to describe a community of people who live outside their shared country of origin or ancestry but maintain active connections with it. The Indian Diaspora is a generic term to describe the people who migrated from territories that are currently within the borders of the Republic of India. It also refers to their descendants. The Diaspora is currently estimated to number over twenty five million. The Diaspora covers practically every part of the world. According to UN, Indians make up the largest Diaspora: over 25 million Indians are scattered across the world.*

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**Key Word:** Diaspora, community people, migrated, territories.

**Introduction:** The Pravasi Bhartiya Divas, 2017 was organized on the theme of 'redefining engagement with overseas Indians' emphasized the importance of Indian diaspora in business, investments and capacity building success of Swachh Bharat Mission, Digital India, and Start-up India. This highlights the role of diaspora in socio-economic development of India.

### **Diaspora activities that impact Socio- Economic Development:**

**Remittances** - The principal focus with respect to the economic effects of Diaspora on the country of origin has been on their substantial financial contributions through remittances – private transfers from migrants to their families. According to the World Bank remittances can (i) Reduce recipient household poverty, with spill over to other households; (ii) increase investment in education and health as well other productive activities; (iii) reduce child labor; and (iv) increase entrepreneurship.

**Investment:** Beyond remittances, Diasporas contribute to the economic development of their country of origin through Foreign Direct Investment (FDI) and transnational entrepreneurship, including support for entrepreneurs, start-ups and small businesses in the country of origin. They may be more likely to invest in economics that others would consider high-risk, simply because they have better knowledge and relationship opportunities that other investors lack. Diaspora investments may be guided not only by profit motives but also by long run considerations of establishing a base in the countries of

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their origin. They are likely to be better informed on the capabilities and requirements of domestic labour and the sort of training local labour requires. Third, quite often the factors which influenced the Diaspora to migrate from their homelands may influence the extent of their involvement and contribution to the development of their countries of origin.

**Diasporas' Knowledge Transfer:** The constructive contributions of Diasporas to development in their country of origin are transfer of acquired knowledge. These Diasporas are a great source of transfer of technical knowledge and skills in the form of 'brain gain'. Where knowledge exchange is concerned, Diaspora members can act as important interlocutors between the technology and country of origin. They can contribute these through not only permanent repatriation but also through short- term return.

**Diaspora Philanthropy:** One of the most important ways that Diaspora contributes to their countries of origin is through philanthropic engagement in many areas. Philanthropy has a pivotal role to play in advancing global equity.

**Diaspora Advocacy:** Diaspora organizations (and sometimes even individuals) are seen to be getting increasingly vocal and influential in their countries of origin and of settlement. They increasingly seek to influence government, media, corporate sector and other prominent groups and are therefore speaking up on a range of issues affecting their homeland.

**Increase demand for Indian goods abroad:** Diaspora has catalyzed the demand of Indian goods in their countries of settlement. The goods range from food, fashion to Indian entertainment industry. This has increased Indian export especially of handloom and handicraft sector.

**Steps taken by Indian Government to harness benefits of Indian Diaspora:** India is one of the pioneers in recognising the importance of its overseas population and establishing an institutional framework for sustainable and mutually beneficial engagement with its Diaspora. India recognises the need therefore, to bring a strategic dimension to its engagement with its overseas community. It is attempting to forge a partnership that will best serve India as a rapidly growing knowledge economy – to drive innovation and entrepreneurship - and meet the aspirations of the overseas Indian community as a significant constituency across the world.

**The Overseas Indian Facilitation Centre (OIFC),** a not for profit trust in partnership with the Confederation of Indian Industry (CII), to serve as a one stop shop for economic engagement, investment and business.

**The India Development Foundation (IDF),** a not for profit trust to serve as a credible single window to facilitate Diaspora philanthropy and lead overseas Indian philanthropic capital into India's social development effort.

**The India Centre for Migration (ICM),** a not-for-profit society to serve as a strategic 'think-tank' on matters relating to overseas employment markets for Indians and Overseas Indian workers.

**The Global Indian Network of Knowledge (Global-INK)**, a robust electronic platform that will facilitate transfer of knowledge with the objective of leveraging the expertise, skills and experience of overseas Indians.

**The Prime Minister's Global Advisory Council**, to serve as a high level body to draw upon the talent of the best overseas Indian minds wherever they might reside.

**Strategic Dashboard of Indian Policy for Diaspora Engagement:**

1. **Flexible Citizenship:** Laws and Residency and Visa Requirements  
India does not permit Dual citizenship however its OCI Card scheme provides for life-time visa free travel and full residency and employment rights for Persons of Indian origin who are citizens of other countries.
2. **Political Rights:** Voting rights have not been accorded to Persons of Indian origin who are citizens of other countries, however Non Resident Indians (NRIs - Indian Passport holders settled overseas) have been recently restored their right to vote by amending rules for registration of voters located overseas.
3. **Special Property Rights:** Indian Diaspora holding PIO or OCI cards have the right to purchase property in India (except farm and plantation).
4. **Tax Incentives:** Reduced customs duty regime for transfer of residence of Overseas Indians returning back to India are available including the retention of NRI status upto three years after return. Provisions for transfer of funds for philanthropy and tax exemption for the same are available.
5. **Portable Benefits:** Through the provision of SSAs (Social Security Agreements) pensionary benefits of Indian workers and professionals working overseas are both portable and can be totalised in countries where SSAs have been executed.
6. **General Laws:** To promote investments from Indian Diaspora, several provisions have been put in place ranging from special incentives for Bank deposits, investments in the Share Market, and certain special provisions for OCIs and NRIs for Foreign Direct Investment. Also, to encourage employment of overseas Indians, amendments to rules for doctors, scientists, academics and accountants have been or are in the process of being amended.

**Conclusion:**

Diasporas can play an important role in the economic development of their countries of origin. Beyond their well-known role as senders of remittances, Diasporas can also promote trade and foreign direct investment, create businesses and spur entrepreneurship, and transfer new knowledge and skills. Although some policymakers see their nationals abroad as a loss, they are increasingly realizing that an engaged Diaspora can be an asset — or even a counterweight to the emigration of skilled and talented migrants.

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**References :**

1. Ballard, Roger. 2003. 'The South Asian Presence in Britain and its Transnational Connections', in Bhikhu Parekh, Gurharpal Singh and Steven Vertovec (ed.) *Culture and Economy in the Indian Diaspora*, London: Routledge. [Presented at the International Conference 'Culture and Economy in the Indian Diaspora', India International Centre: New Delhi, 8-10 April 2000]
2. Bhat, Chandrashekhar. 1999. 'Contexts of Intra and Inter Ethnic Conflict among the Indian Diaspora Communities', 'occasional paper n. 5', Centre for the Study of Indian Diaspora, Hyderabad: University of Hyderabad.
3. Bose P.S. 2007. "Dreaming of Diasporas: Urban Developments and Transnational Identities in Contemporary Kolkata." *Topia*, Vol. 17: pp. 111-130.
4. Pravashi Bharti Magazine
5. Swachh Bharat Mission, Digital India

## **A Study on Performance of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in Dhubri district of Assam**

**\* Piyali Das**

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**Abstract-** *The paper focuses on the performance of MGNREGA in Dhubri district of Assam state. Several indicators evaluating the performance of the programme such as number of households issued with job cards, number of households demanded and provided employment, percentage of families completed 100 days' employment, category wise employment generation, work completion rate and percentage of fund utilization etc. have been used to study the performance of MGNREGA in Dhubri district. The present study depends on secondary sources of information for analysis. Performance of MGNREGA is examined for the period 2014-15 to 2016-17. After the analysis of data, it is evident that the performance of MGNREGA is not encouraging and the implementing agencies should take proper steps to make the programme successful.*

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**Keywords:** MGNREGA, Dhubri district, employment, work completion rate

**Introduction:** Indian economy suffers from several distortions since independence. Though current Indian economy is on a higher growth trajectory, it still suffers from high incidence of poverty, unemployment, rural-urban migration, illiteracy, lack of adequate infrastructure and productive resources, absence of women empowerment in rural India (Shah, 2011). Rural economy is the pillar upon which the nation growth is to be shaped. Mahatma Gandhi emphasised on rural economy by saying “The future of India lies in its villages”. For overall development of India, constraints faced by rural economy must be reduced. To address various problems of rural economy, Government of India has undertaken several poverty alleviation and employment generation programmes. Among those, Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is a notable one. National Rural Employment Guarantee Act was enacted on 25<sup>th</sup> August, 2005 and it came into force on 2<sup>nd</sup> February, 2006. It was renamed as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on 2<sup>nd</sup> October, 2009. The gazette document of MGNREGA (2005) outlines the primary objective of the act as

—”An Act to provide for enhancement of livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every households whose adult members volunteer to do unskilled manual work and for matters connected therewith or incidental thereto.” ( NREGA Gazette document , 2005). The other objectives of this programme are creating productive assets, protecting the environment, reducing migration, empowering rural women and the poor through the provision of a right based law, fostering social equity and creating strong social safety net for the vulnerable classes by generating employment sources when the other alternatives are not available. The Act covered 200 districts in its first phase, implemented on 2<sup>nd</sup> February, 2006 and was extended to 130 additional districts in 2007-2008. All the remaining rural areas have been notified with effect from April 1, 2008. In Assam, the five tribal dominated districts i.e. KarbiAnglong, Kokrajhar, DimaHasao, Lakhimpur and Dhemaji were the beneficiaries of NREGA in the 1<sup>st</sup> phase of the scheme( 2006-2007). The Scheme was extended to Barpeta, Bongaigaon, Cachar, Darrang, Goalpara, Hailakandi and Nalbari Districts of Assam in 2007-2008 and from 1<sup>st</sup> April 2008 the scheme was implemented in all the remaining districts of Assam.

Dhubri is a poverty oriented district of Assam. Dhubri is positioned at the bottom in the HDI list of Assam with considerable lag in the development procedure of the district ( Saha, 2014). The economy of Dhubri district is basically agrarian in nature and rural people deprive from basic necessities of life due to seasonal nature of agriculture, lack of alternative occupation etc. MGNREGA has great role to play to overcome economic insecurity of rural people.

**Review of Literature:** In August 2005, National Rural Employment Guarantee Act was legislated to provide guaranteed employment to rural people in India. Since its inception several studies have been conducted by the government and non-government agencies and researchers on various aspects of MGNREG.

Prasad ( 2012) undertook a study on performance of Mahatma Gandhi National Rural Employment Guarantee Act in India. The author opined that MGNREGA programme has a vital role to play because of its humane approach. The scheme acts as an effective safety net for the unemployed especially during famine and drought. It is evident from the study that the Act has enabled the rural poor to meet their basic necessities and stopped rural-urban migration. By involving rural poor in other non-agricultural work, the scheme has helped in reducing disguised workers and will lead to sustainable development.

Bhat et. al. ( 2015) has made an attempt to study the performance of Mahatma Gandhi National Rural Employment Guarantee Scheme( MGNREGS) in Jammu & Kashmir. It was found from the study that the

performance of the scheme in the state is far from satisfactory. The scheme is not able to generate sufficient employment opportunities for rural poor. There is a huge gap between the job cards and the actual number of days of employment provided to households. There exists a large gap between the works taken up and the works completed during the time period. Maximum number of works taken up has not been completed in the state. The state has to work hard to make the scheme purposeful and goal oriented.

Padma (2015) has made an effort to study the performance of MGNREGA in Andhra Pradesh. It was evident from the study that job cards are not issued to 100 per cent households and very few households completed 100 days work through MGNREGA in the study area. The author concluded that the continuation of MGNREGA is essential to curtail excess migration to urban areas.

Baruah (2016) in his paper made an attempt to study the performance statistics of MGNREGA in Nagaon and Morigaon districts of Assam. It was evident from the study that MGNREGA programme has made positive impacts in terms of standard of living, consumption pattern, health care expenses, education expenses and savings in the study area.

The MGNREGA came into force in the year 2005. Since its inception there have been several studies on the subject carried out by different states and districts. MGNREGA has been implemented in third phase in Dhubri district from 1st April 2008. But in case of Dhubri district, research on this subject is highly limited. The present study, thus, attempts to fill the gap in the existing literature and make an addition to the existing knowledge base relating to different aspects of MGNREGA.

**Objectives:** The objectives of the present study are as follows:

1. To analyze the key features of MGNREGA.
2. To evaluate the performance of MGNREGA in terms of employment generation in Dhubri district.
3. To examine financial and physical performance of MGNREGA in the study area.

**Methodology:** The study is confined to Dhubri district of Assam. The study is a descriptive type and mainly based on secondary data- the source being website, related books, journals. The official website of MGNREGA has been used to collect information about the scheme. The study covers the period from 2014-15 to 2016-17.

**Key Features of MGNREGA:**

**a) Legal right to work:**

- The Act provides a legal right to employment for adult members of rural households.
- At least one third beneficiary have to be women.
- Wages must be paid according to the wages notified for agricultural labourers in the state under the Minimum Wage Act, 1948 unless the

central government notifies a wage rate which should not be less than Rs. 60 per day. At present wage rate as fixed by central government ranges from Rs. 135 per day to Rs. 214 per day but it may vary across states.

**b) Time bound guarantee of work and unemployment allowances:**

- Employment must be provided within 15 days of demanding for work otherwise unemployment allowances must be given and it is the liability of state government.
- Work is provided up to 100 days in a financial year per household depending on actual demand.

**c) Decentralized planning:**

- Works which are to be taken must be recommended by Gram Sabhas.
- At least 50 per cent of works must be executed by Gram Panchayats.
- PRIs are mainly responsible for planning, implementation and monitoring of works.

**d) Transparency and Accountability:**

- Provision for proactive disclosure through wall hanging, citizen information boards, Management Information Systems and social audits.
- Social audits have to be done by the Gram Sabha.

**e) Work site facilities: Work site should have crèche, drinking water, first aid and shade etc.**

**f) Funding:**

- Funding is shared between the centre and states.
- Central Government bears 100 per cent of the wages of unskilled labour, 75 per cent of the wages of semi-skilled and skilled labour, 75 percent of the cost of materials and 6 percent of administration cost.
- State government bears 25 per cent of material including payment of wages to skilled and semi-skilled workers cost.

**MGNREGA in Assam and Dhubri district:** The Mahatma Gandhi National Rural Employment Guarantee Act was implemented with the objective to enhance the livelihood security of rural people by providing hundred days of wage employment to a rural household in a financial year. The implementation of MGNREGA has made positive impact on the financial position of workers in Assam. At present, about 46.33 lakhs number of job cards are issued and a total of 78.86 lakh workers have got jobs under this scheme. MGNREGA has a great potential to improve the livelihood scenario of rural poor in Assam. The scheme was implemented in Dhubri district from 1<sup>st</sup> April, 2008. The district is basically agrarian in nature and remains backward in respect of industrialization. Unemployment, poverty, migration etc are the major problems faced by rural poor in the district. Hence MGNREGA is considered to play a vital role to provide economic security to rural people in the district.

**Performance of MGNREGA:** The performance of MGNREGA in the study area is examined by taking into account various indicators such as percentage

of households provided employment, persondays generated, work completion rate and percentage of fund utilization etc.

**Table 1, Employment provided under MGNREGA in Dhubri district**

Year	No. of HHs issued with job cards	No. of HHs demanded employment	No. of HHs given employment against demand	% of HHs provided employment	No. of families completed 100 days' employment
2014-2015	202689	29560	27445	92.85	518
2015-2016	210078	32547	28729	88.27	441
2016-2017	208525	45735	40885	89.39	493

HHs-Households

Source: www.nrega.nic.in

It is being found from the table 1 that during the year 2014-2015, the scheme could provide employment to 27445 households as against 202689 job cards. Job cards issued to households increased to 210078 in 2015-2016 and then again declined to 208525 in 2016-2017. During the year 2014-2015, 27445 households consisting of 92.85 per cent provided employment as against the demand of 29560 under MGNREGA in Dhubri district. The data relating to the completion of 100 days of employment have shown that as the highest 518 households completed 100 days of work during the year 2014-2015. It declined to 441 in 2015-2016 and then again increased to 493 households in 2016-2017.

**Table 2, Person days generated under MGNREGA**

Year	Scs	Sts	Others	Total	Women
2014-2015	13072	698	896984	910754	333712
2015-2016	12240	1058	968248	981546	363462
2016-2017	19271	1060	1633348	1653679	630978

Source: www.nrega.nic.in

It is evident from the table 2 that total person days generated showed an increasing trend. Highest 1653679 person days of employment generated during the year 2016-2017 comprising 19271 among SCs, 1060 among STs and 1633348 among others. The person days of STs had remarkably increased. The person days of employment among women has considerably increased from the year 2014-2015 to 2016-2017.

**Table 3, Work undertaken and Completion Rate under MGNREGA**

Year	No. of works started	No. of works completed	Not yet completed	Work Completion rate
2015-2016 and earlier	6607	5692	915	86.15
2016-2017	1861	792	1069	42.56
Total	8468	6484	1984	76.57

Source: www.nrega.nic.in

It is found from the table 3 that during the year 2015-2016 and earlier to 2016-2017, out of 8468 number of undertaken works, 6484 number of works were completed and within this period, 76.57 percent of the undertaken works in the district could be completed.

**Table 4: Financial Performance Under MGNREGA (Rs. in Lakhs)**

Year	Fund Available	Expenditure incurred	% of fund utilisation
2014-2015	2884.89	1891.6	65.57
2015-2016	3139.06	1319.1	42.02
2016-2017	5072.04	4228.62	83.37

Source: www.nrega.nic.in

As regards the financial performance under MGNREGA, an amount of Rs.1891.6 Lakhs consisting of 65.57% has been utilized against the allocation of fund of Rs.2884.89 Lakhs during the period 2014-2015. It has found to be decreased to 42.02% in the year 2015-2016 and then again increased to 83.37% in 2016-2017.

#### **Conclusion:**

MGNREGA is the largest social security scheme in the world and guaranteed 100 days' of unskilled manual work to all rural households in India. The MGNREGA programme provides rural households the right to work and making it obligatory for the state to give them job on demand. But from the study, it is found that only about 92.85( 2014-15), 88.27 ( 2015-16) and 89.39 ( 2016-17) per cent of households are provided work on demand and the remaining deprived of their right of getting employment in the study area. From the data relating to provision of 100 days' of guaranteed employment, it is revealed that 1.89 % ( 2014-15), 1.54 % ( 2015-16) and 1.21 % ( 2016-17) of households only completed 100 days' of employment. Moreover there exists a wide gap between number of works undertaken and number of works completed during the time period. From the financial performance of MGNREGA in the study area, it is evident that funds earmarked for the programme have not been properly utilized. MGNREGA has great potential to improve the living standards of poor people in rural areas. Government should take required steps to implement the scheme properly so that rural poor can come out from vicious circle of poverty.

#### **References :**

1. Baruah, R. ( 2016) ' Performance Statistics of MGNREGA: A Case Study in Nagaon and Morigaon Districts of Assam.' *International Journal of Applied Research* 2(12), 729-735.
2. Bhat, M.U., Wani, N. and Khan, I.A. ( 2015) ' Performance of Mahatma Gandhi National Rural Employment Guarantee Scheme ( MGNREGA) in Jammu & Kashmir.' *International Journal of Innovative Research & Development* 4( 1), 204-210.
3. Padma, K. ( 2015) ' Performance of MGNREGA in Andhra Pradesh.'

*International Journal of Humanities and Social Science Invention* 4( 4), 22-27.

4. Prasad, K.V.S.( 2012) ‘ Performance of Mahatma Gandhi National Rural Employment Guarantee Act ( MGNREGA) : An Overview.’ *International Journal of Management & Business Studies* 4 ( 2),99-103.
5. Saha, G.K.( 2014) ‘ Micro Finance and Women Empowerment in Rural India’ *Asian Journal of Multidisciplinary Studies* 2(7),151-157.
6. [www.nrega.nic.in](http://www.nrega.nic.in)



## Stepping towards Cashless Economy in India - An Ethical Analysis of Digitalization

\* Rupmala Hojai

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**Abstract-** *The Modi government have taken great initiative towards cashless economy in India. Cashless economy is nothing but making transactions via electronic media. It can be done with the help of mobile, computer, ATM and internet. For empowering people and for the betterment of Indian societies this initiative was taken. The cashless economy can reduced the time and cost of transactions. But it also should be noted that most of the Indian people live in village areas. So a proper knowledge should be provided by government to villagers to operate mobile, internet, computer and ATM. This cashless economy or digitalization can be analyzed in the light of ethical and moral principles to know how the people of India get benefited through this initiative.*

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**Keywords:** Cashless Economy, Mobile Banking, Government initiatives.

**Methodology of study** – this study is based on descriptive method. The data and information for this paper have been collected from secondary sources. Different websites have been used which are available in different article.

**Introduction:** Cashless transaction is done via electronic media. Networking and telecommunication are the system which help people to acquire information everywhere even in rural areas. Internet has brought great change in people communication through social websites and applications with the help of Computers, Laptops and mobiles. Banks are the backbones of country's Economy. Digitalisation is nothing but conversion of people readable material to machine readable.

The Banking system is whole networking and people can make their financial transactions from their home or office. All these are possible due to uses of digital system and further its up gradation is also required thereby. The Share market greatly depends on Investors, whether it is Foreign Investors, Domestic Investors, Individual investors. Even small investor can now invest their money from rural areas. It attracts more small investors in India markets along with foreign and domestic financial Institutional investor.

**Objective of study:**

1. One of the most important object of cashless of Indian economy is to know how the technologies and connectivity.

2. Cashless economy will also help to identify the role of financial Literacy and how the government services and the innovative ideas can be achieved the vision of digital India reality and executed in the growth of Indian Economy.

### **Government of India Initiatives towards cashless economy:**

Digitalization in India lay emphasis on E-governance and transform India into a digitally empower society through the use of information technology. It is the outcome of several innovations and technology advances. An initiative was being taken by our honourable PM. Mr. Narendra Modi towards on 1<sup>st</sup> July 2015 “Making India Digital”. It aimed to connect the people of rural areas with high speed Internet network. Indian Government projected for a successful digitalization of India in every aspects of society.

Digital India program aims at improving delivery of Govt. services to citizen, business and government employees. People get advantages of newest information and connections by the technological innovations. The succeeding government of India have been throwing their political weight behind the use of ICT application and its alignment with the institutions. After that, the Modi government initiated the 5 year (2014-2019) Digital India Project with a commitment to transform India into a “connected Economy”. The digital India vision is centred on the following three initiative project:

**1. Digital infrastructure as a utility to every citizen:** This initiative seeks to provide every citizen with high speed internet facility, a cradle to grave internet identity, mobile phone and bank account.

**2. Governance and services on demand:** This vision will provide single window access to every individual. Every government services and information are made available in real time or online and mobile platforms. In addition, the provision of cashless electronic transactions will help to generate business.

**3. Digital empowerment of citizen:** Under this vision, every citizen, especially rural citizen will empower through digital literacy and by making available the digital resources in their native language with a view to making their participations a reality. All documents and certificates to be available on cloud and in Indian languages.

Again Digital India provides various initiative projects for bringing good governance to citizens. For this government of India undertaken nine initiative projects. The initiative are -Broadband highways, Universal access to mobile connectivity, Public Internet access program, Electronic Manufacturing, IT training for jobs, E-Governance, E-Kranti, Information for all, Early Harvest Programs

### **Impact on Indian Economy:**

Cashless economy led great impact on Indian Economy directly or indirectly. It has targeted IT and mobile manufacturing sectors directly by increasing rates of production. There are more employment generation in the IT and technology sector. According to analysts, the Digital India plan could boost GDP up to \$1 trillion by 2025.

As per the World Bank report, a 10% increase in mobile and broadband penetration increases the per capital GDP by 0.81% and 1.38% respectively in the developing countries. India is the 2nd largest telecom market in the world with 915 million wireless subscribers and world's 3rd largest Internet market with almost 259 million broadband users. There is still a huge economic opportunity in India as the tele-density in rural India is only 45% where more than 65% of the population lives. Future growth of telecommunication industry in terms of number of subscribers is expected to come from rural areas as urban areas are saturated with a tele-density of more than 160%.

Technology has shrunk the globe these days. Everyone needs huge data usages now a days. It looks like it is as important as Food, cloth and shelter. Now we can do wide number of tasks by using Smartphone and internet e.g., online money transfer, booking rail, flight or bus ticket, booking a taxi, booking hotels, online chatting with friends and loved ones, sharing our own photos and videos or of the others etc. Whatsaap is one of the most applications which are widely used for office report submission. Whereas facebook, twitter, Instagram, LinkedIn, youtube etc are most used social networking websites. Introduction of AADHAR card managed to avail almost all individual details. Now the AADHAR number is sufficient to acquire personal details of a person.

India is chalking out its own growth strategy driven by digitalization, connectivity, cash-less/paper-less economy, and start-up innovation ecosystem. Smart phones penetration is rising in the country with 700 million users expected by 2020; we will have 331 million internet users by 2020. With Aadhaar UID, 1 billion users can authenticate 100 transactions per day in real time. India Stack is a complete set of APIs for developers which include Aadhaar for authentication, e-KYC, and e-sign amongst others. All these will propel technological disruption, digital connectivity, growth of tech start-ups in order to achieve the said vision of Digital India.

Technology will allow businesses to transact easily and efficiently, and thus contribute faster to economy growth. Launch of new devices that feature iris scanner that is Aadhaar and STQC certified, will enable cashless and paperless services for banking, passport, taxation, etc. All these, along with Immediate Payment Service, Unified Payments Interface, micro ATMs, m-POS and financial inclusion programs by the Government (such as Pradhan Mantri Jan-Dhan Yojana), will aggressively pave the way for digital payments in India.

After demonetization on November 8, we have seen an adoption of payment solutions like e-wallets, cash cards, bitcoins, online platforms and POS (point-of-sale) services. Coming back to India Stack, and how it will revolutionize the space for business, fuel innovation, India stack comprises of four key layers- presence-less, paperless, cashless and consent. This means for tech start-ups and app developers is that they can readily create novel business apps using the infrastructure provided by the stack.

**Ethical or Moral View:**

Financial Literacy is one of the most important to do step for the people of India. The people of rural areas are lack in knowledge of financial system of India. They do not have even the basic knowledge about Indian financial system. More than 70% of the Indian adults are unknown about the basic financial concept of India. The people are unknown about the term of inflation & deflation, the term of money or the interest rates given in the banks. As a result they are unable to utilize their money or wealth properly. They may invest their money but due to lack of financial knowledge their wealth or financial status does not growth as much as it should be. Thus government has to take necessary steps for the welfare of the society and their financial status upliftment. The technology is developing and with the help of digitalization it is possible to spread of financial literacy along with financial growth of Indian people.

After the announcement of the demonetization by honorable PM Narendra Modi on 8<sup>th</sup> November 2016, its now turn to see whether the BJP government fulfilling its aims and objectives of demonetization or not. RBI reported of returning 15 Lakhs crores of high value money as per estimated during demonetization of Rs. 1000 and Rs. 500 notes. But still it was a big challenge for Indian Government to achieve its goal of wipe out black money from the Indian Market.

Indian markets are dependent highly on cash transactions. Everyday millions of people make their transactions to meet their requirements in the market. There are small as well as big amount of cash transactions in daily basis. Not only small shopkeepers but the huge number of various product dealers and distributors involved in cash market. In this case P.M. Narendra Modi wants to promote digital payment system more than a cash one. His view is that it could minimize the illegal dealings and end up the fake currency printings. Yes, It will surely bring a revolution if it is possible to make transactions digitally, by using mobile, computers and by the use of internet. But due to lack of literacy and awareness of the new technologies amongst Indian, was a big problem in front. Number of rural people who stays in remote areas are even unknown about the banking services and their uses. Therefore the villagers and the dealers of the raw corps, fruits and vegetables would face a serious problem, because they are unknown to digital world and can't operate the mobiles properly. Thus, the mobile banking system and other ways of digital payment systems were useless for them.

**Conclusion:**

To conclude we cannot emulate other economics. Technology and digitalization will propel growth in India. Digital Bharat is the goal, which will create opportunities for stakeholders and industries alike. The cashless and paperless economy is catapulting small and medium businesses, making it easier to transact. So much data and transactions is creating huge demands

for cyber security, storage, web performance and faster computing.

Cyber crime is growing day by day. Bank accounts, Emails Ids are hacked. Fraudsters looted huge amount of money from the innocent Indians with the help of phone calls. So, these kinds of acts are also to be kept in mind for us and should not be neglected or taken easily. If we can do any banking transactions easily by sitting at home on the other hand a hacker may hack and loot all the amounts of our banks and transfer it to his or their accounts in seconds. Cyber security is to be developed and maintained by government properly to stop those fraudulent. Government has to ensure that all the cyber crime related activities are blocked by system administrator and networking and programming experts. Therefore proper manpower of highly qualified software engineers should be employed. However, fingerprint scanner, eye protection etc are developed and used for various security purpose. And people should be aware of that security system to get rid of such unfair means of tasks by hackers.

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#### References :

1. [https://en.wikipedia.org/wiki/Cashless\\_society](https://en.wikipedia.org/wiki/Cashless_society)
2. <http://cashlessindia.gov.in/>
3. [https://transformingindia.mygov.in/category/economy/cashless\\_economy/](https://transformingindia.mygov.in/category/economy/cashless_economy/)
4. [https://en.wikipedia.org/wiki/Digital\\_India](https://en.wikipedia.org/wiki/Digital_India)
5. <https://qrius.com/what-is-the-future-of-digitalization-in-india/>

## **International Standards on Domestic Violence Legislation: A Critical Analysis**

**\* Pratap Chandra Dash**

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**Abstract-** *Domestic violence is universal, differing only in scope from one society to the next. Much of this violence is inflicted on girls and women by husbands, fathers, or other male relatives. Despite progress made regarding women's human rights through the campaigning of women's organisations and activists and trade unions, women are still not safe from violence. This violence is recognized today as a major issue on the international human rights agenda. Domestic violence is undoubtedly a human rights issue and serious deterrent to development.*

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**Keywords: Domestic Violence, Activists, Organisations**

**Introduction:** All ASEAN countries have ratified CEDAW. In Cambodia, Lao PDR, Indonesia and Vietnam, treaty law is recognized as part of domestic law. However, it is not clear to what extent treaty provisions have been effected in domestic laws. In Malaysia, Singapore and Thailand, a special legislation is required to make CEDAW applicable in domestic law. The Constitution of the Philippines recognises “generally accepted principles of international law” as part of the domestic law. It has been interpreted by the Supreme Court to mean generally accepted principles which are customary laws, and not treaty obligations. Those principles of customary law which are in the treaties are recognized as part of domestic law.<sup>1</sup>

All ASEAN countries have incorporated guarantee for equality under law and equal protection of laws in their constitutions; however, reading the Constitutions, Basic Laws and domestic violence legislations clearly shows that all countries in the ASEAN region with the exception of the Philippines require specific incorporation of their obligations under international conventions into the domestic law. According to the study by International Women’s Rights Action Watch Asia Pacific (IWRAWAP), the constitutions of ASEAN countries do not provide clear guidance on what prevails if domestic law is in conflict with international treaty law, nor how CEDAW norms could be used as an “actionable source of right”. Furthermore, there are varying opinions among legal experts with regard to the applicability of CEDAW at the domestic level.

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**Domestic Violence laws in different countries:**

More countries have laws banning domestic violence. Violence against women is pandemic but there has been progress. Today 125 countries have specific laws that penalize domestic violence.<sup>2</sup> But women continue to be subjected to violence.

Incidence of domestic violence correlated with income. A study of domestic violence in U.S.A<sup>3</sup> reveals that women with family income under \$7,500 experienced the highest rates of violence (22 per 1000); women with family income over \$75,000 had the lowest rates of violence (2.5 per 1000). Black females experience more domestic violence than white females (12 per 1000 versus 9 per 1000). The highest rates of intimate violence are in the age range of 16 to 24.<sup>4</sup>

One out of four incidents of domestic violence involved an offender who had been drinking, and of those offenders who were sent to prison about half had been drinking for six or more hours before the violence occurred. Although most studies show that women are the primary victims of domestic violence, some studies suggest that about half of domestic violence cases are “bi-directional”—meaning both the man and woman are engaging in aggressive conduct.<sup>5</sup>

**Domestic Violence law in USA:**

The Violence against Women Act of 1994 (VAWA) is a United States federal law. It was passed in 1994 as a result of extensive grassroots efforts in the late 80's and early 1990s, with advocates and professionals from the battered women's movement, sexual assault advocates, victim services field, law enforcement agencies, prosecutors' offices, the courts, and the private bar urging Congress to adopt significant legislation to address domestic and sexual violence. Since its original passage in 1994, VAWA's focus has expanded from domestic violence and sexual assault to also include dating violence and stalking. It funds services to protect adult and teen victims of these crimes, and supports training on these issues, to ensure consistent responses across the country. One of the greatest successes of VAWA is its emphasis on a coordinated community response to domestic violence, dating violence, sexual assault, and stalking; courts, the law enforcement, prosecutors, victim services, and the private bar currently work together in a coordinated effort that had not heretofore existed on the state and local levels. VAWA also supports the work of community-based organizations that are engaged in work to end domestic violence, dating violence, sexual assault, and stalking, particularly those groups that provide culturally and linguistically specific services. Additionally, VAWA provides specific support for work with tribes and tribal organizations to end domestic violence, dating violence, sexual assault, and stalking against Indian women.

The Violence against Women Act (VAWA) 1994 was reauthorized by Congress in 2000, and again in December 2005. The Act's 2012 renewal

was fiercely opposed by conservative Republicans, who objected to extending the Act's protections to same-sex couples and to provisions allowing battered illegal immigrants to claim temporary visas.<sup>6</sup>

***The Violence Against Women Act (VAWA) 1994*** – Congress, in passing VAWA 1994, envisioned a nation with an engaged criminal justice system and coordinated community responses. VAWA 1994 fostered:

- Community-coordinated responses that brought together, for the first time, the criminal justice system, the social services system, and private non-profit organizations responding to domestic violence and sexual assault
- Recognition and support for the efforts of domestic violence shelters, rape crisis centers, and other community organizations nationwide working everyday to end this violence
- Federal prosecution of interstate domestic violence and sexual assault crimes
- Federal guarantees of interstate enforcement of protection orders
- Protections for battered immigrants
- A new focus on underserved populations and Native victims of domestic violence and sexual assault

***The Violence Against Women Act (VAWA) 2000*** – Congress improved on the foundation established in VAWA 1994, including:

- Identifying the additional related crimes of dating violence and stalking
- The creation of a much-needed legal assistance program for victims of domestic violence and sexual assault
- Promoting supervised visitation programs for families experiencing violence
- Further protecting immigrants experiencing domestic violence, dating violence, sexual assault or stalking, by establishing U- and T-visas and by focusing on trafficking of persons

In 2000 the Supreme Court of the United States held part of VAWA unconstitutional in *United States v. Morrison*<sup>7</sup> on federalism grounds. Only the civil rights remedy of VAWA was struck down. The provisions providing program funding were unaffected.

***The Violence Against Women Act (VAWA) 2005*** – Congress took a more holistic approach to addressing violence against women. In addition to enhancing criminal and civil justice and community-based responses to violence, VAWA 2005 created notable new focus areas such as:

- Containing provisions that exclusively serve to protect immigrant victims of domestic violence but also include immigration protections to alleviate violence against immigrant women that previous legislation had tried, but failed to alleviate
- Developing prevention strategies to stop violence before it starts
- Protecting individuals from unfair eviction due to their status as victims



of domestic violence or stalking

- Creating the first federal funding stream to support rape crisis centers
- Developing culturally-and linguistically-specific services for communities
- Enhancing programs and services for victims with disabilities
- Broadening VAWA service provisions to include children and teenagers

VAWA's reauthorization in 2000 and 2005, has changed the landscape for victims who once suffered in silence. Victims of domestic violence, dating violence, sexual assault and stalking have been able to access services, and a new generation of families and justice system professionals has come to understand that domestic violence, dating violence, sexual assault and stalking are crimes that our society will not tolerate.

As of April 2012, the law is currently up for reauthorization in Congress. Different versions of the legislation have been passed along party lines in the Senate and House, with the Democratically-sponsored Senate version favouring expansion of the law to provide more services to illegal immigrants and LGBT individuals.

In recent years, state legislatures and courts have been paying increasing attention to domestic violence. Most states have elaborate laws designed to protect individuals from domestic violence by their spouses, other family members, and people with whom the victim may have had a social relationship.

#### ***Domestic Violence laws in Canada :***

In Canada, the federal government has the authority to make laws that affect all Canadians. The provinces, however, are responsible for prosecuting most Criminal Code offences. The federal government also prosecutes Criminal Code offences in the territories as well as other federal offences across the country.<sup>8</sup>

#### ***What federal legislation addresses family violence in Canada?***

Family violence is against the law in Canada. Although the Criminal Code does not have a specific "family violence offence", an abuser can be charged with an applicable offence. Criminal charges could include:

- sexual offences against children and youth (ss. 151, 152, 153, 155 and 170-172)
- trespassing at night (s. 177)
- child pornography (s. 163.1)
- failure to provide necessities of life and abandoning child (ss. 215 and 218)
- criminal negligence (including negligence causing bodily harm and death) (ss. 219-221)
- homicide - murder, attempted murder, infanticide and manslaughter (ss. 229-231 and 235)
- criminal harassment (sometimes called "stalking") (s. 264)
- uttering threats (s. 264.1)

- assault (causing bodily harm, with a weapon and aggravated assault) (ss. 265-268)
- sexual assault (causing bodily harm, with a weapon & aggravated sexual assault) (ss. 271-273)
- kidnapping & forcible confinement (ss. 279 and 279.1)
- abduction of a young person (ss. 280-283)
- making indecent & harassing phone calls (s. 372)
- mischief (s. 430)
- intimidation (s. 423)
- breach of a court order, recognizance (peace bond), & probation order (ss.145(3), 127, 811, and 733.1)

The sentencing provisions of the *Criminal Code* provide that where an offender, in committing the offence, abuses his spouse or child or any position of trust or authority, this shall be considered an aggravating factor for sentencing purposes (s.718.2).

The substantive and procedural amendments to the *Criminal Code* have increased the safety of victims of family violence, including:

- strengthening the peace bond provisions concerning those previously convicted of sexual offences against children ;
- restricting the availability of conditional sentences for offences involving serious personal injury ;
- facilitating testimony by children and other vulnerable victims and witnesses including victims of spousal abuse, criminal harassment and sexual assault
- facilitating the use of the criminal law to enforce civil restraining orders granted in domestic violence cases (s. 127(1)).

### ***Provincial and Territorial Legislation:***

Provincial and territorial governments make laws in areas of their own jurisdiction, including providing victims' services. The following Provincial and territorial governments have proclaimed specific legislation on family violence:

- Alberta: *Protection Against Family Violence Act*
- Manitoba: *Domestic Violence and Stalking Act*
- Newfoundland and Labrador: *Family Violence Protection Act*
- Northwest Territories: *Protection Against Family Violence Act*
- Nova Scotia: *Domestic Violence Intervention Act*
- Nunavut: *Family Abuse Intervention Act*
- Prince Edward Island: *Victims of Family Violence Act*
- Saskatchewan: *Victims of Domestic Violence Act*
- Yukon: *Family Violence Prevention Act*

These civil statutes are designed to complement protections in the *Criminal Code*. They offer further protection to victims of family violence. Civil measures provided include emergency intervention orders, which may

grant exclusive victim occupation of the home and family vehicle. They may also restrain the abuser from communicating with or contacting the victim or members of the victim's family. Some statutes also provide for victims' assistance orders, which may include monetary compensation from the abuser.<sup>9</sup>

***Domestic Violence laws in UK:***

**The Domestic Violence, Crime and Victims Act 2004** (c 28) is concerned with criminal justice and concentrates upon legal protection and assistance to victims of crime, particularly domestic violence. In United Kingdom it also expands the provision for trials without a jury, brings in new rules for trials for causing the death of a child or vulnerable adult, and permits bailiffs to use force to enter homes.

***Non-molestation orders:***

Non-molestation orders under the Family Law Act 1996 were amended to provide a criminal sanction for non-compliance, with a maximum sentence of 5 years' imprisonment. The circumstances in which such orders could be imposed was extended to include same-sex couples and co-habiting couples on an equal footing with married couples. Former co-habitants are also included.

***Restraining orders:***

Restraining orders (preventing the recipient from doing anything specified in the order) can be imposed upon acquitted defendants. They are imposed if the court "considers it necessary to do so to protect a person from harassment by the defendant". The Court of Appeal in allowing an appeal against conviction may also remit the matter to the Crown Court to consider a restraining order in respect of the otherwise successful appellant.<sup>10</sup>

***Common assault:***

The Act deemed common assault an arrestable offence. The practical effect of this change was that the police could arrest a suspect at the scene without a warrant, rather than potentially be compelled to leave the suspected assailant with his or her alleged victim. Previously the police would have to allege assault occasioning actual bodily harm, which was arrestable, in order to detain the suspected assailant in borderline cases.

However, the concept of "arrestable offence" was abolished on 1 January 2006. As of 2007, police can effect an arrest, even in the case of suspected common assault, in order "to prevent the person in question causing physical injury to himself or any other person."

The Act specified common assault as an alternative verdict to a count on an aggravated assault in the Crown Court, though it is not itself an indictable offence.

***Fitness to plead:***

Judges, not a specially empanelled jury, now decide if a defendant is fit to plead." The regime for dealing with defendants who are unfit to plead or not guilty by reason of insanity (that is, committed the physical acts constituting

the offence but without the sane intent) has also been modified. The court, not the Home Secretary, makes the assessment (requiring medical evidence to do so) whether the defendant should be committed to a psychiatric hospital.

***Trial by jury of sample counts only:***

Trials with a substantial number of charges can now be split into two phases: trial by jury of “specimen counts” and judge-only trial of the remaining counts. This further expands the circumstances in which trials can be heard without a jury.<sup>11</sup>

The prosecution must satisfy the court that three conditions are met:

- given the number of counts, a trial by jury involving all of them would be impracticable
- each count or group of counts to be tried by a jury can be regarded as a sample of counts for judge-only trial
- it is in the interests of justice

The judge should take into account any ways that jury trial can be made easier, but no such measure should result in a trial where the defendant faces a lesser sentence than would be available with the new measures.

***The new offence***

The offence of “causing or allowing the death of a child or vulnerable adult”, now referred to as the “new offence”, is committed under section 5 of the Act if the following four conditions apply:

- A child or vulnerable adult dies as a result of an unlawful act of a person in the “same household”
- The defendant was also member of the same household, with frequent contact with the victim, and present at the time of the unlawful act
- There was a risk of serious physical harm to the victim at the time
- Either: The defendant did the unlawful act (that is, directly caused the death), or Was aware of the risk (or ought to have been), didn’t take reasonable steps to do anything about it, and foresaw the circumstances which led up to the unlawful act causing death

Therefore if it can be established that a child or vulnerable adult died as a result of an unlawful act, it need not be proved which of the two responsible members of the household either caused the death or allowed it to happen.

If there was no obvious history of violence, or any reason to suspect it, then the other members of the household would not be guilty of this offence, even in clear cases of homicide. Where there is no reason to suspect the victim is at risk, other members of the household cannot reasonably be expected to have taken steps to prevent the abuse.

***New procedure:***

Court procedure is amended to restrict the circumstances in which the trial can be stopped at the end of the prosecution case and before the defence case.<sup>12</sup>

The ambit of the “adverse inference” (right of the jury to make

assumptions about any part of the case, including the guilt of the defendant, based upon his or her failure to answer any question put in court) is extended to include an inference on a joint charge of homicide (murder and manslaughter) and the new offence; this means that if a person is charged with either (or both) homicide offences and this new offence, then silence in the witness box can imply guilt of homicide as well as the new offence. This is subject to the usual safeguard that a person cannot be convicted solely upon the basis of their silence.

The point at which a “no case to answer” submission can be made has in certain circumstances been moved to the end of the whole case, not just the prosecution. Joint charges of homicide and the new offence can only be dismissed at the end of the whole case (if the new offence has survived past that stage as well).

The new offence will survive the “no case to answer” test as long as the fundamentals of the offence are demonstrated - the prosecution do not have to show whether the defendant caused or allowed the death to happen. The defendant will be under pressure to give evidence about what occurred - not to do so would result in the adverse inference being drawn.

#### ***Bailiff powers:***

The Act permits bailiffs to use force to enter homes, overturning a centuries-old doctrine, confirmed by *Semayne's case* (1604), that “an Englishman's home is his castle”.

#### ***Domestic violence laws In India:***

Before passing the Protection of Women from Domestic Violence Act, 2005,<sup>13</sup> in India there was no special Act to prevent violation against women. This does not mean that acts of domestic violence were not punished in India; there were some allied and relevant laws. Where a woman is subjected to cruelty by her husband or his relatives, it is an offence under section 498A of the Indian Penal Code<sup>14</sup> and a ground for divorce under all the personal laws and the Special Marriage Act.<sup>15</sup> Further, offences against women are protected under the provisions the Dowry Prohibition Act,<sup>16</sup> Medical Termination of Pregnancy Act<sup>17</sup>, etc. and also various remedies are provided under the personal laws and section 125 of the Code of the Criminal Procedure.<sup>18</sup> Further also penal provisions for the offences which may fall within domestic violence are provided under the Indian Penal Code. They are—

- Murder and Culpable homicide (Sections 302 and 304)
- Dowry death (Section 304B)
- Abetment of Suicide (Sections 305 and 306)
- Female Infanticide (Sections 313-316)
- Hurt and Grievous hurt (Sections 323-338)
- Wrongful Restraint and Wrongful Confinement (Sections 341- 348)
- Force (Section 349)
- Criminal force (Section 350)

- Assault (Section 351)
- Assault or criminal force with intent to outrage modesty of women (Section 354)
- Marital rape: Intercourse by a man with his wife during separation (Section 376A)
- Unnatural offences (Section 377)
- Criminal breach of trust (Sections 405 and 406)
- Deceitfully causing cohabitation inducing belief of lawful marriage (Section 493)
- Bigamy (Sections 494 and 495)
- Fraudulent marriage ceremony (Section 496)
- Adultery (Section 497)
- Cruelty by husband or his relative (Section 498)
- Word, gesture or act intended to insult the modesty of a woman (Section 509)

However, as the civil law does not address the phenomenon domestic violence in its entirety, the provisions of laws were not sufficient to mitigate the increasing violence against women day by day. So, to prevent violence against women, the Government of India introduced the Protection of Women from Domestic Violence Bill in the Parliament. The Protection of Women from Domestic Violence Bill, 2005 having been passed by both the Houses of the Parliament received the assent of the President on 13.09.2005. This Act provides protection of women from domestic violence, prevents the occurrence of domestic violence in the society, protects her constitutional and other legal rights with dignity and aims to bring peaceful coexistence within the family.

#### ***Domestic violence:***

According to this Act<sup>19</sup> domestic violence means any act, omission or commission or conduct of the respondent which—

- harms or injures or endangers the health, safety, life, limb or well-being of the aggrieved person or tends to do so or harasses, harms, injures or endangers her to meet any unlawful demand for any dowry or other property or valuable security; or
- has the effect of threatening her or person related to her by any conduct aforementioned or otherwise injures or causes harm to her.

It includes causing physical abuse, sexual abuse, verbal and emotional or economic abuse.

#### ***Duties of police officers, service providers and Magistrate upon complaint of, or otherwise present at the place of an incident of, domestic violence:***

A police officer, Protection Officer, service provider or the Magistrate who has received a complaint of domestic violence or is otherwise present at the place of an incident of domestic violence or when the incident of domestic violence is reported to him, shall inform the aggrieved person about her right

under the Act, under the Legal Services Authorities Act, under section 498A of the Indian Penal Code and the availability of services of service providers and Protection Officers, wherever relevant.<sup>20</sup> It is also envisaged that this section shall not relieve any police officer from his duty to proceed in accordance with law on receipt of information as to commission of a cognizable offence.<sup>21</sup>

The wife is entitled to free legal aid. It is duty of members of bar and judicial officers concerned to let her know this right. The petitioners were directed to approach the authority concerned and get Free Legal Aid. The burden cannot be put on husband merely because she did not know her right.

On a request of the aggrieved person, the Protection Officer<sup>22</sup> or a service provider<sup>23</sup> may make a request to the person in charge of a shelter home<sup>24</sup> in writing, clearly stating that the application is being made under this section. When a Protection Officer makes a request, it shall be accompanied by a copy of the domestic incident report registered, under Section 9 or under Section 10 of the Act. For aggrieved person not having lodged a domestic incident report shelter home shall not refuse shelter to such person under the Act prior to the making of request for shelter in the shelter home. When the aggrieved person so desires, the shelter home shall not disclose the identity of the aggrieved person in the shelter home or communicate the same to the person complained against.

***Application to Magistrate for reliefs under the Act:***

The aggrieved person or Protection Officer or any other person on behalf of the aggrieved person may present an application to the Magistrate<sup>25</sup> seeking one or more reliefs under the Act including order for payment of compensation or damages without prejudice to the rights of such person to institute a suit for compensation or damages for the injuries sustained in the act of domestic violence committed by the respondent.

***Various reliefs under the Act:***

- ***Right to reside in a shared household<sup>26</sup>***

Every woman in a domestic relationship is empowered to reside in a shared household whether or not she has any right, title or beneficial interest in the same.

Every aggrieved person shall have the right to reside in the shared household and she shall not be evicted or excluded from the shared household by the respondent except in accordance with the procedure established by law.

The claim for alternative accommodation can only be made against the husband and not against the husband's in-laws or other relatives. The wife is only entitled to claim a right to residence in a shared household, and a "shared household" would only mean house belonging to or taken on a rent by the husband, or the house which belongs to the joint family of which the husband is a member.

- **Protection orders<sup>27</sup>**

The Magistrate may, after giving the aggrieved person and the respondent an opportunity of being heard and on being *prima facie* satisfied that domestic violence has taken place or is likely to take place, may pass a protection order in favour of the aggrieved person. A protection order may contain an order prohibiting the respondent from committing any act of domestic violence or aiding or abetting therein, entering the place of employment of the aggrieved person or if the person aggrieved is a child its school, or any other place frequented by the aggrieved person or attempting to communicate in any form whatsoever with the aggrieved person without the leave of the Magistrate, alienating any assets, operating bank lockers or bank accounts belonging to both the parties jointly or to the respondent singly, including her *stridhan* or any other property held jointly or separately by them, causing violence to the dependents, other relatives or any person giving the aggrieved person assistance from domestic violence or committing any other act as specified in the protection order.

- **Residence orders<sup>28</sup>**

The Magistrate may on being satisfied that domestic violence has taken place pass a residence order restraining the respondent from dispossessing or disturbing the possession of the aggrieved person from the shared household, directing the respondent to remove himself from the shared household, restraining the respondent or his relatives from entering the shared household, restraining the respondent from alienating or disposing of or encumbering the shared household, restraining the respondent from renouncing his rights in the shared household except with the leave of the Magistrate, or directing the respondent to secure alternate accommodation for the aggrieved person of the same level as enjoyed by her in the shared household or to pay rent for the same. It is also provided in this section that no order shall be passed against any person who is a woman directing her to remove herself from the shared household. Sub-section (2) empowers the Magistrate to impose additional conditions and pass any other direction in order to protect the safety of the aggrieved person or her child. Sub-section (3) provides for execution of a bond by the respondent for prevention of the domestic violence. Sub-section (5) empowers the Magistrate to pass an order directing the officer-in-charge of the concerned police station to give protection to the aggrieved person or to assist in implementation of the residence order. It is also provided in this section that the Magistrate may impose on the respondent an obligation to discharge rent and other payments and to direct the respondent to return to the aggrieved person her *Stridhan* or any other property or valuable security to which she is entitled.

- **Monetary reliefs<sup>29</sup>**

The Magistrate may pass orders for grant of monetary relief to the aggrieved person from the respondent to meet the expenses incurred and



losses suffered including loss of earnings, medical expenses, loss to property and maintenance of the aggrieved person and her children including maintenance under, or in addition, to section 125 of the Code of Criminal Procedure, 1973 or any other law for the time being in force. The monetary relief shall be adequate, fair and reasonable and consistent with the standard of living to which the aggrieved person is accustomed. The Magistrate shall have the power to order lump sum or monthly payments for maintenance. On the failure of the respondent to make payments of the monetary relief, the Magistrate may direct the employer or a debtor of the respondent to directly pay to the aggrieved person or to deposit with the court a portion of the wages or salaries or debt due to or accrued to the respondent.

- ***Custody orders***<sup>30</sup>

The Magistrate may, at any stage of hearing of the application for grant of any relief, grant temporary custody of any child to the aggrieved person or to the person making an application on her behalf and specify the arrangements for visit of such child by the respondent. However, the Magistrate may refuse to allow such visits if in his opinion such visits may be harmful to the interests of the child.

- ***Compensation orders***<sup>31</sup>

The Magistrate may, on an application by the aggrieved person, pass an order directing the respondent to pay compensation or damages or both to the aggrieved person for the injuries including for the mental torture and emotional distress caused to her by domestic violence by the respondent.

***Power to grant interim and ex parte orders***<sup>32</sup>

The Magistrate may pass such interim order as he deems just and proper. He may also pass *ex parte* orders on the basis of affidavits given by the aggrieved person. Every affidavit for obtaining *ex parte* order under subsection (2) of section 23 shall be filed in Form III.

***Relief in other suits and legal proceedings***<sup>33</sup>

Any relief available under the Act may also be sought in any legal proceeding before a civil court, family court or a criminal court and that any relief which may be granted under the Act may be sought for in addition to and along with reliefs sought for in a suit or legal proceeding before a civil or criminal court. However, the aggrieved person shall be bound to inform the Magistrate of the reliefs obtained by her in any proceeding other than proceedings under the Act.

Family Court can grant reliefs under sections 18 to 22 of the Act, if such reliefs sought are pending before it, but, however, for filing an independent proceeding seeking reliefs under the aforesaid sections the aggrieved party has to approach the concerned Magistrate having jurisdiction as per the provisions of section 27 of the Act.

Section 26 of the Act has been inserted with an objective that in addition to the provisions of section 12 the aggrieved person is entitled to any relief

available under sections 18, 19, 20, 21 and 22 in any legal proceeding, before a civil court, family Court or a criminal court, affecting the aggrieved person and the respondent whether such proceeding was initiated before or after the commencement of the Act. Sub-section (2) of section 26 further envisages that any relief referred to in sub-section (1) may be sought for in addition to and along with any other relief that the aggrieved person may seek in such suit or legal proceeding before a civil or criminal court. Sub-section (3) cast duty on the aggrieved person that in case any relief has been obtained by the aggrieved person in any proceedings other than a proceeding under section 12 of this Act, she shall be bound to inform the Magistrate of the grant of such relief. Therefore, as per section 26 of the Act, the aggrieved person is also entitled to seek relief as provided under sections 18, 19, 20, 21 and 22 in any legal proceeding, before a civil court, Family Court, or a criminal court in which the aggrieved person and respondent are party and that relief is in addition to and along with any other relief that the aggrieved person may seek in such suit or legal proceeding. Therefore, an option has been given to the aggrieved person to avail reliefs available to her under sections 18, 19, 20, 21 and 22 in a legal proceeding pending in a civil court, criminal court or Family Court in addition to filing of the application under section 12.

### ***Conclusion:***

The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) is adopted in 1979 but it does not include specific provisions on violence against women, subsequent developments in international law and in interpreting CEDAW have recognized violence as constituting a violation of women's human rights. Violence against women is a manifestation of historically unequal power relations between men and women, which have led to domination over and discrimination against women by men and to the prevention of the full advancement of women, and that violence against women is one of the crucial social mechanisms by which women are forced into a subordinate position compared with men.

More countries have laws banning domestic violence. Violence against women is pandemic but there has been progress. Today 125 countries have specific laws that penalize domestic violence.<sup>34</sup> But women continue to be subjected to violence.

Victims of domestic violence, dating violence, sexual assault and stalking have been able to access services, and a new generation of families and justice system professionals has come to understand that domestic violence, dating violence, sexual assault and stalking are crimes that our society will not tolerate.<sup>35</sup>

The Protection of Women from Domestic Violence Act, 2005 provides protection of women from domestic violence, prevents the occurrence of domestic violence in the society, protects her constitutional and other legal rights with dignity and aims to bring peaceful coexistence within the family.

Any relief available under the Act may also be sought in any legal proceeding before a civil court, family court or a criminal court and that any relief which may be granted under the Act may be sought for in addition to and along with reliefs sought for in a suit or legal proceeding before a civil or criminal court.<sup>36</sup> However, the aggrieved person shall be bound to inform the Magistrate of the reliefs obtained by her in any proceeding other than proceedings under the Act.

So in the prevalent context the research aims to make an appraisal of different Criminological Aspect of Domestic Violence to explain the reasons of violence in family, to conduct a study of the criminal justice administration of the Protection of Women from Domestic Violence Act 2005, to reflect upon the restorative justice model imperatives vis-a-vis the criminal justice model and to study the human rights standards and to internalise the same within the justice administration system.

### Footnotes

1. Peer review by Atty Rowena Guanzon, LLB, MPA, University of Philippines, February 2009.> accessed on 31st January 2012
2. United Nations Entity for Gender Equality and empowerment of women; <<http://www.unwomen.org/2011/11/un-women-executive-director-michelle-bachelet-unveilscomprehensive-policy-agenda-to-end-violence-against-women/>>accessed on 4th February 2012
3. Domestic Violence in the United States; [www.pdfio.com/k-141785.html](http://www.pdfio.com/k-141785.html) >accessed on 8th February 2012
4. Ibid
5. [http://www.americanbar.org/groups/domestic\\_violence/resources/statistics.html](http://www.americanbar.org/groups/domestic_violence/resources/statistics.html):BromleyBriefings Prison Factfile - Prison Reform Trust;[www.prisonreformtrust.org.uk/Portals/0/.../Factfile June 2012.pdf](http://www.prisonreformtrust.org.uk/Portals/0/.../Factfile%20June%202012.pdf) >accessed on 12th February 2012
6. *Violence against Women Act 1994*; [en.wikipedia.org/wiki/Violence\\_Against\\_Women\\_Act](http://en.wikipedia.org/wiki/Violence_Against_Women_Act), accessed on 15th February 2012
7. United States v. Morrison, 529 U.S. 598 (2000) >accessed on 18th February 2012
8. Domestic Violence Legislation In Canada In Canada, the ... [www.apwld.org/pdf/DV\\_legislation\\_Canada.pdf](http://www.apwld.org/pdf/DV_legislation_Canada.pdf) accessed on 21st February 2012
9. The department of justice, Canada;<<http://www.justice.gc.ca/eng/pi/fv-vf/laws-lois.html>> accessed on 24th February 2012
10. Domestic Violence, Crime and Victims Act 2004 - Wikipedia, the free ... [en.wikipedia.org/.../Domestic\\_Violence,\\_Crime\\_and\\_Victims\\_Act\\_2004](http://en.wikipedia.org/.../Domestic_Violence,_Crime_and_Victims_Act_2004) accessed on 28th February 2012
11. The Criminal Justice Act 2003. Accessed on 29th February 2012
12. Sending Indictable Only Cases to the Crown Court: Legal Guidance ... [www.cps.gov.uk/.../sending\\_indictable\\_only\\_cases\\_to\\_the\\_crown\\_court/](http://www.cps.gov.uk/.../sending_indictable_only_cases_to_the_crown_court/) accessed on 1st March 2012
13. The protection of women from domestic violence act, 2005 - Lawyers [www.lawyerscollective.org/.../protection\\_of\\_women\\_from\\_domestic\\_violence\\_act\\_2005.pdf](http://www.lawyerscollective.org/.../protection_of_women_from_domestic_violence_act_2005.pdf) accessed on

- 4th march 2012*
14. Petition | Reconsider IPC 498a - Legal Terrorism | Change.org  
*www.change.org/en-IN/.../ reconsider-ipc-498a-legal-terrorism accessed on 6th march 2012*
  15. Indian Marriage Laws - Legallight *www.legallight.in/ indianmarriage\_laws.html accessed on 10th march 2012*
  16. dowry prohibition act, 1961 - The National Commission For Women  
*ncw.nic.in/PDFFiles/ Dowry actamendment.pdf accessed on 12th march 2012*
  17. The Medical Termination Of Pregnancy Act, 1971 *tcw.nic.in/Acts/MTP-Act-1971.pdf accessed on 14th march 2012*
  18. IBA - The concept of 'maintenance' under Indian law *www.ibanet.org/ Article/ Detail.aspx? ArticleUid=5be1285c-2dfc. accessed on 16th march 2012*
  19. Protection of Women from Domestic Violence Act, 2005, Section 3 >accessed on 18th march 2012
  20. Protection of Women from Domestic Violence Act, 2005, Section 5 *accessed on 22nd march 2012*
  21. Cognizable offence means an offence for which, and "cognizable case" means a case in which, a police officer may in accordance with the first schedule or under any law for the time being in force arrest without warrant. A 'non-cognizable offence' means an offence for which, and 'non-cognizable case' means a case in which, a police officer may not arrest without warrant. *accessed on 24th march 2012*
  22. Appointed under Section 8 of the Protection of Women from Domestic Violence Act, 2005. *accessed on 26th march 2012*
  23. As per section 10 of the Protection of Women from Domestic Violence Act, 2005 Service provider means an entity registered with the State Government as a service provider for the purposes of the Act. Entity means any voluntary association registered under the Societies Registration Act, 1860 or a company registered under the Companies Act, 1956 or any other law for the time being in force with the objective of protecting the rights and interests of women by any lawful means including providing of legal aid, medical, financial or other assistance to the women. *accessed on 28th march 2012*
  24. Shelter home means any shelter home as may be notified by the State Government to be a shelter home for the purposes of this Act. See the Protection of Women from Domestic Violence Act, 2005, Section 6 *accessed on 31st march 2012*
  25. Protection of Women from Domestic Violence Act, 2005, Section 12 *accessed on 1st April 2012*
  26. Protection of Women from Domestic Violence Act, 2005, Section 17 *accessed on 4th April 2012*
  27. Ibid, Section 18
  28. Protection of Women from Domestic Violence Act, 2005, Section 19 *accessed on 12th April 2012*
  29. Protection of Women from Domestic Violence Act, 2005, Section 20, *accessed on 12th April 2012*
  30. Ibid, Section 21
  31. Ibid, Section 22

32. Ibid, Section 23
33. Ibid, Section 26
34. United Nations Entity for Gender Equality and empowerment of women; <<http://www.unwomen.org/2011/11/un-women-executive-director-michelle-bachelet-unveils-comprehensive-policy-agenda-to-end-violence-against-women/>>accessed on 26th April 2012
35. Violence Against Women Act (VAWA) « National Domestic Violence ... [www.thehotline.org /get-educated/violence-against-women-act-vaw](http://www.thehotline.org/get-educated/violence-against-women-act-vaw) accessed on 29th April 2012
36. Ibid.

## **A Study on Awareness towards Human Rights among Secondary School Students**

\* Papari Deka

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**Abstract-** *The term 'human rights' denote all rights that are present in our society and without which one cannot live as a human being. Human rights are the basic rights that a person irrespective of race, gender or any other background cannot live with respect and dignity. They are universal, inalienable, indivisible and interdependent. In the present study an attempt has been made to investigate human rights awareness among secondary school students. In the present study descriptive survey method was adopted. A sample of 100 male and female students was taken and stratified random sampling techniques were used for selecting sample.*

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**Keywords:** Awareness, Human rights, Secondary school students, Guwahati

**Introduction:** All human beings are by virtue of their being human possess certain basic and inalienable rights which are commonly known as human rights. Human rights are inherent to all human beings, whatever our nationality, place of residence, sex or ethnic origin, color, religion, language or any other status. They are applicable everywhere and at every sense of being universal and they are egalitarian in sense of being the same for everyone. We are all equally entitled to our human rights without discrimination. These rights are all interrelated, guaranteed by law, in the forms of international law, general principles and other sources of international law. After World War II, the universal declaration of human rights on 10 December 1948 marks the first cornerstone of an international movement for human rights. It is the basic international code of conduct which is a general finding for all the members' nations of UNO to promote and protect human rights. A number of cases of human rights denial in various forms and incidents are happening. Even in some cases the role of the government responsible for protecting human rights are not appropriate. Most of the human rights violation cases are seen in case of deprived sections of society. The main reason for occurrence of incidents of exploitations is the lack of awareness among large masses about their basic human rights. (Vishal sood & Arti Anand, 2012)

Education has a very important role to play for promotion and protection of human rights. Education makes us aware about our civil and political rights often called as the first generation political rights and the social, economic

and cultural rights as the second generation rights. Education can aware each and every population about their rights, responsibility and dignity. Without education one cannot be introduced of their basic rights and obligation.

### **Human rights Education:**

Human rights education is an integral part of the right to education and is increasingly gaining recognition as human rights itself. Knowledge of rights and freedom is considered a fundamental tool to guarantee respect for the rights of all. UNSECO's work in human rights education is guided by the World Programme for Human Rights Education.

Education should encompass values such as peace, non-discrimination, equality, justice, nonviolence, tolerance and respect for human dignity. Quality education based on a human rights approach means that rights are implemented throughout the whole education system and in all learning environment.

### **Review of related literature:**

**Mathiwala (2006)** conducted study on Human rights awareness among B. Ed students. The study concluded that only few students have exhibited human rights awareness and none of the students have shown low human rights awareness. The findings show that there is an urgent need to take action to aware students about human rights.

**Kumar & Kumar (2009)** studied on human rights awareness among secondary school teacher trainers. The findings of the study revealed that majority of teacher trainers are not well aware of the basic issues related to human rights, which they expected to promote in their class.

**Dr. yogita Goel(2013)** Studied on level of human rights awareness amongst the students of higher education. The study revealed that all categories of students know about human rights and they are also aware of the present scenario of human rights violation.

**Mrs. R. D. padmavathy & Dr. Pratima Pallai (2015)** studied on human rights awareness of university students: an investigation. The findings of the study revealed that the post graduate students irrespective of their entire sample, gender, place of residence, stream, faculty and type of family have average level of human rights awareness.

Thus many studies have been done in the field human rights awareness among secondary school students.

**Statement of the problem:** The present study entitled as "A Study on Awareness towards Human Rights among Secondary School students."

### **Operational Definitions:**

**Human rights:** Human rights are commonly understood as inalienable fundamental rights to which a person is inherently entitled simply because he or she is a human being.

**Awareness:** The state or condition of being aware; having knowledge, consciousness.

**Secondary school students:** Students studying in Std. XI & XII.

**Objectives of the study:**

1. To study the knowledge of secondary school students about human rights.
2. To study the awareness of secondary school students towards human rights.
3. To study the awareness of boys and girls secondary school students towards human rights.

**Design of the study:**

**Method of the study:** The present study follows Descriptive Survey Method and is based on primary and secondary sources of data. Besides this, the investigators had gone through different journals, books and online services.

**Sample:** In the present study sample of 100 secondary school students (50 boys and 50 girls) of XII std. were selected randomly from some Govt. and some private junior Colleges in Guwahati.

**Tools Used:** A human rights awareness questionnaire (HRAQ) developed by the investigator was used for collection of data. The HRAQ consists of 30 items with yes-no choice and respondent have to choose the correct alternative.

**Statistical Technique used:** Keeping in view the need of the study, the investigator had applied only simple percentage.

**Delimitation of the study:** The study is delimited to only std. XII (Arts) students in Guwahati.

**Analysis and discussion:** The data analysis was done on the basis of objective of the study.

**Objective No 1:** To study the knowledge of secondary school students about human rights.

In order to find out the knowledge of the students of secondary school about human rights 10 questions were given related with concept and different issues related to human rights where respondents gave answer in yes/no.

Sl No.	Rights	Yes	No
1.	Human rights means, the rights ensures life, liberty and equality.	95%	5%
2.	Right to live is the basic right of human beings.	90 %	10%
3.	9 <sup>th</sup> December is observed as 'International human right day.	90%	10%
4.	Constitution of India guarantees the fundamental rights like 'Equality', 'Liberty', and 'Liberation from all social exploitation.	90%	10%
5.	The constitution of India directs free and compulsory education for all children between 6 to 14 years.	100 %	0%
6.	The human rights protection act passed in India in the year 1993.	80%	20%
7.	Our constitution passed on 15 <sup>th</sup> August 1947.	95%	5%
8.	The right to free and compulsory education is not applicable in higher education sector.	95%	5%
9.	Child labor is illegal.	98%	2%
10.	The article 24 of the Indian constitution prohibits child labor.	95%	5%

**Objective No 2:** To study the awareness of secondary school students towards human rights. In order to find out the awareness of secondary school students towards human rights 30 questions were given related to different dimensions



of human rights i.e. Civil rights, Cultural rights, Educational rights, Economic rights, Legal right, social rights, Political rights and International rights where respondents gave answer in yes/no.

**Table 1-Civil rights**

Sl No.	Rights	Yes	No
1.	Right to life, liberty and security of person.	80%	20%
2.	Right to freedom and equality in dignity and right.	80%	20%
3.	Freedom from discrimination.	75%	25%
4.	Freedom from interference with privacy, including home, Family and correspondence.	40%	60%
5.	Right to freedom from torture or degrading treatment.	40%	60%
6.	Right to freedom from arbitrary arrest or exile.	45%	55%
7.	Right to freedom from slavery and servitude.	50%	50%
8.	Right to own property.	90%	10%
9.	Right to a nationality.	60%	40%
10.	Right to freedom of movement and residence in one's own And to leave and return at all.	90%	10%

**Table 2- Cultural rights**

Sl No.	Rights	Yes	No
1.	Right to rest and leisure.	80%	20%
2.	Right to participate in the cultural life of the community.	85%	15%

**Table 3- Educational rights**

Sl No.	Rights	Yes	No
1.	Right to education.	100%	0%

**Table 4- Economic Rights**

Sl No.	Rights	Yes	No
1.	Right to marriage and protection of family being.	95%	5%
2.	Right to work and fair pay for work.	65 %	35 %
3.	Right to adequate standard for living for health and well being.	60%	40%

**Table 5- Legal right**

Sl No.	Rights	Yes	No
1.	Right to equal consideration before the law.	75%	25%
2.	Right to recognition as a person before the law.	60%	40%
3.	Right to remedy through a competent tribunal.	45 %	55%
4.	Right to a fair trial or public hearing.	40%	60%
5.	Right to be considered innocent until proven guilty.	55%	45%

**Table 6- Social right**

Sl No.	Rights	Yes	No
1.	Right to social security.	70%	30%
2.	Responsibility to community essential to free and full development of the individual.	35%	65%

**Table 7- Political right**

Sl No.	Rights	Yes	No
1.	Freedom of belief and religion.	95%	5%
2.	Right to peaceful assembly and association.	70%	30%
3	Freedom of opinion and information.	77%	23%
4.	Right to participate in government and in free election and to equal access to public service.	55%	45%

**Table 8-International Rights**

Sl No.	Rights	Yes	No
1.	Right to asylum.	30%	70%
2.	Right to social order assuring human rights.	29%	71%

**Objective no 3:** To study the awareness of boys and girls of secondary school towards human rights.

In order to find the awareness of boys and girls of secondary school towards human rights same questionnaire were provided to the respondent and it was found that both boys and girls of secondary school were aware that human rights are fundamental rights and it is equal for all. But in cases of some rights like civil rights, economic right boys student were more aware than girls.

**Findings of the study:** On the basis of the data the investigator found the following findings:

- Majority of the secondary school students have knowledge and idea about the concept and different issues related to human rights.
- From the table 1 it is seen that most of the students were aware about Right to freedom, equality and dignity, Right to own property and Right to freedom of movement and residence in one's own country. Very less students were aware about freedom from interference with privacy, including home, family and correspondence and freedom from arbitrary arrest or exile.
- Most of the students were aware about their cultural rights.
- Almost all students were aware about their Educational rights.
- Majority of the students were aware about their economic rights.
- Majority of the students were aware about Right to equal consideration and recognition as a person before the law. They were less awareness about Right to a fair trial or public hearing & right to remedy through a competent tribunal.
- Most of the students were aware about Right to social security.
- Majority of the students were aware about freedom of belief, religion, opinion and information. Less were aware about right for protection of these rights from state or other interference.
- Very less students were aware about International Rights.
- Both girls and boys of secondary school were aware about different dimensions of human rights. But in case of some rights like civil rights,

economic rights boys students were more aware than girls of secondary school.

**Conclusion:** At the conclusion it may be ensured that all the categories of students have knowledge about human rights. On the basis it is noticed that majority of the secondary school students are aware about human rights but it is not cent percent. So keeping in view of the findings there is an urgent need to initiate action making students aware about human rights through various programme like workshop, seminar, conference etc.

Suggestion for future research:

- This was a very small study. It would be important to survey at a larger scale.
- A more comprehensive sample may be taken.
- A project on developing human rights awareness in school may be taken.
- Students should be always conscious for protection of their human rights.

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#### References :

1. Dr. Kaberi Saha (2012) Stastics in Education and Psychology; Asian Books Private limited.
2. Dr. nara Narayan Mahanta, Dipsikha Das (2014) Measurement, Assessment and Evaluation in Education and statistic; Mani Manik Prakash.
3. Dr. Sunita Agarwalla (2013) Stastics in Education, Bookland, Panbazar-Guewahati.
4. Henry E. Garrett (2005) Stastics in Psychology and Education; Paragon International Publishers
5. John W. Best (2002) Research in Education, Ninth Edition, Prentice Hall, India.
6. National Council for Educational Research and Training, 1996. Human Rights. A source book, New Delhi, NCERT.
7. P. Panda (2001) Human rights Education in Indian School: Curriculum Development. Vol. IV.

## **Use of Instant Messaging Application as A Medium of Sharing Information by The Students of National Law University and Judicial Academy, Assam: A Study**

\* Sanjib Deka

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**Abstract-** *The Main purpose of this study is to find out the use of instant messaging app by the students of National Law University and judicial Academy, Assam as a medium of sharing information. The study reveals the importance of IM applications and various purposes as well as areas of activities. From the study it is found that majority of the students use IM apps for sharing course related information and very few of them use IM apps for sharing library related services. To conduct this study survey method was applied and the data gathered were analysed in tabular form.*

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**Keywords:** Instant Messaging, WhatsApp, Social Networking, Academic Activities, Smartphone.

**1. Introduction:** The Information Communication Technology (ICT) enabled academic environment has changed the scenario of retrieving information drastically. Today smartphones have emerged as one of the most important medium of sharing information among the academic community and its importance among them is increasing day by day. One can easily retrieve information using instant messaging app in mobile phone sitting anywhere on earth. Nowadays smartphone also support operating system. Android operating system in smartphone is prominent among the user community which enables a user to perform varieties of functions with its advanced improving features. There are varieties of application software over the smartphone. Prominent among them are Wi-Fi, WhatsApp, WeChat, Facebook Messenger, Telegram, Hotstar, some online shopping apps, etc. Among these the IM apps are widely used either for entertainment purpose or for communicating information. The current study was conducted to find out the importance and impact of the use of mobile instant messaging application with the help of internet.

**2. About National Law University and Judicial Academy, Assam:** The National Law University and Judicial Academy, Assam was established by the, The National Law University and Judicial Academy, Assam, Act No. XXV of 2009. The campus of the National Law University and Judicial Academy, Assam is situated at Agiyathuri, Amingaon, on the Northern bank

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of the river Brahmaputra amidst the lush greenery.

### 3. Types of instant messaging application:

There are different types of instant messaging application like WhatsApp, Facebook Messenger, WeChat, Telegram, etc. These instant messaging applications are widely used for performing varieties of task such as sharing voice messages, sending and receiving text and multimedia messages, voice and video calling sharing photos, videos, mobile contacts, pdf, word, excel, power point files, etc.

### 4. Objectives of the Study:

1. To know the purpose of using instant messaging application in academic environment.
2. To find out the various activities performed by the students through instant messaging app in smartphones.
3. To find out the impact of using instant messaging application for academic purposes.

### 5. Methodology:

To conduct this study survey method was applied. The questionnaires were distributed among 100 students of National Law University and Judicial Academy, Assam out of which 66 students responded to the questionnaire. The filled in questionnaire were returned by the students and the responded percentage was found to be 66%. A personal interview was also made with the responding students at the time of returning the filled in questionnaire.

### 6. Analysis of the Data Obtained:

#### 6.1 Number of Respondents:

Table 1 below shows the number of respondents. About 90 questionnaires were distributed among the undergraduate students of 5 years integrated B.A.LLB course out of which 60 questionnaires were received and 10 questionnaires were distributed among 1 year LL.M programme, out of which 6 questionnaires were received. The respondent's total percentage for the present study is found to be 66%.

**Table 1:** Number of Respondents

Course Undertaken	No. Of Questionnaire Distributed	No. Of Questionnaire Received
Undergraduate (B.A., LL.B)	90	60 (66.66%)
Post Graduate (LL.M)	10	6 (60%)
Total	100	66 (66%)

#### 6.2 Purpose of using internet on smart phones:

**Table 2:** Purpose of using internet on smart phones

Purpose	Respondents	Percentage (%)
Social Networking	66	100
Searching Course material	66	100
News	51	72.7
Moot Court Problems	66	100
E-mail	66	100
Play online games	30	45.45
Research Purpose	38	57.57
Online Shopping	50	75.75

Table 2 shows the purpose of using internet in smartphone. From the table it is evident that 100% of the students use internet in smartphone for social networking, searching course materials, moot court problems and sending messages through e-mail. Majority of the students use for online shopping. It is also evident that 38% of students use internet for research purpose and only 30% of the students use internet for playing online games.

### 6.3 Instant messaging application used in smartphone:

**Table 3:** Instant messaging application used in smartphone.

Instant Messaging Application	Respondents	Percentage (%)
WhatsApp	66	100
WeChat	0	0
Facebook Messenger	66	100
Telegram	0	0

Table 3 shows IM apps used in smartphone. From the table it is revealed that among the IM application, 100% of the students use WhatsApp and Facebook Messenger. None of the students use WeChat and Telegram.

### 6.4 Periods of using instant messaging application in smartphone.

**Table 4:** Periods of using instant messaging application in smartphone.

Periods	Respondents	Percentage (%)
Less Than 1 Year	0	0
1-5 Years	52	78.78
5-10 Years	14	21.21
Above 10 Years	0	0

Table 4 shows period of using instant messaging apps in smartphone. From this table it is seen that 78.78% of the students have used IM apps for 1 to 5 years and 21.21% of the students used instant messaging apps for 5 to 10 years.

### 6.5 Purpose of using instant messaging application.

**Table 5:** Purpose of using instant messaging application.

Purpose	Respondents	Percentage (%)
Chatting	66	100
Video calling	60	90.90
Sharing photos, videos, documents	66	100
Sharing Knowledge Information	64	96.96
Access to Library Catalogue	35	53.03
Reminders for renewal	21	31.81
Book reservations	0	0
Accessing e-books and e-journals	66	66

Table 5 shows purpose of using IM application. From the table it is evident that 100% of the students use IM apps for the purpose of chatting, sharing photos, videos, documents, and accessing e-journals and magazines. It is also seen that 60% of the students use IM apps for Video calling and 64% of the students use IM apps for sharing knowledge information. For accessing library catalogue only 35% of the students use IM apps. Very few of the students, i.e., 21% use IM apps for reminders of books for renewal. From the table it is also clear that none of the students use IM apps for book reservations.

### 6.6 Creation of groups in instant messaging application.

**Table 6:** Creation of groups in instant messaging application.

Response	Respondents	Percentage (%)
Yes	62	93.93
No	4	06.06

Table 6 shows that majority of the students have created groups in IM application, i.e., 93.93% of the students have created groups and only few have not created groups in IM application, i.e., 06.06%.

### 6.7. Satisfaction with information shared over instant messaging application.

**Table 7:** Satisfaction with information shared over IM application.

Satisfaction Level	Respondents	Percentage (%)
Satisfied	55	83.33
Highly Satisfied	11	16.66
Not Satisfied	0	0

Table 7 shows satisfaction with information shared over IM application. The table depicts that 83.33% of the students are satisfied and 11% of them are highly satisfied with information shared over IM apps.

### 6.8 Daily Time Spent on instant messaging application.

**Table 8:** Daily Time Spent on instant messaging application.

Time Spent	Respondents	Percentage (%)
Less than 1-Hour	59	89.39
2-5 Hours	7	10.60
5-8 Hours	0	0
Above 8 Hours	0	0

Table 8 shows daily time spent on instant messaging app. The table depicts that 59% of the students spent less than 1 hour in using IM apps and 10.60% of students spent 2 to 5 hours in using IM apps.

### 6.9 Areas of information shared by students over the instant messaging application.

**Table 9:** Areas of information shared by students over the instant messaging application.

Areas	Respondents	Percentage (%)
Arrival of new books in Library	10	15.15
Sharing Case Laws	66	100
Sharing course related information	66	100
Sharing list of e-journals and e-magazines	64	96.96
Sharing event date and time of University	63	95.45
Sharing Moot Court Problems	66	100

Table 9 shows areas of information shared by students over the IM application. From the table it is seen that for sharing case laws, sharing course related information, sharing moot Court problems 100% of the students use IM apps. The table also depicts that 96.96% of the students use IM apps for sharing e-journals and e-magazines and 95.45% for sharing event date and time of University. Only few of them, i.e., 15.15% students use IM apps for list of new arrival books in library.

### 6.10 Impact of instant messaging application.

**Table 10:** Impact of instant messaging application.

Areas of impact	Respondents	Percentage (%)
Access to Library Services	5	07.57
Accessing Information resources	66	100
Easy location of Library resources	0	0

Table 10 shows impact of instant messaging application. The table depicts that the impact of IM apps to assess library services is very negligible i.e., 07.57%. The table also shows that 100% of the students have impact of instant messaging apps in assessing information resources. It is also from the table that none of the students have impact of IM apps in easy locating of library services.

### Recommendations:

1. Nowadays IM app like WhatsApp is rarely used for library related services. So in order to boost up the various library services LIS professionals and Librarian should take necessary initiatives in using instant messaging



application for library services.

2. It is found that very few students use IM apps for sharing new arrival list of books and journals. So in this regard LIS professionals should make necessary awareness to the students to share this information.

3. LIS professionals and Librarian should make important groups in IM apps to share various library related services and availability of recent trends in order to make the students aware about its latest services and arrivals.

4. As through IM apps information can be communicated instantly and quickly, LIS professionals should take necessary steps to communicate with the students and academic community to keep them up to date with latest information.

### **Conclusion:**

It can be concluded that influence of mobile technology in Libraries is growing at a faster rate as access of information is more reliable and faster in today's ICT enabled academic environment. Today use of instant messaging application in mobile phones is very much popular among the academic community to communicate information instantly and quickly. This trend of communicating information has become very much popular among the students and Libraries should respond to this emerging trend to provide reliable information to its users through web-enabled mobile devices. In this regards conscious choices should be made by LIS professionals and Librarian about what information they are going to offer to its users and act accordingly.

### **References :**

1. Nalluri, S. R., & Gaddam, B. (2016, July). Mobile Library Services and Technologies: A Study. *International Journal of Research in Library Science*, 2(2). Retrieved April 29, 2018, from <http://www.ijrls.in/wp-content/uploads/2016/08/Mobile-Library-Services-and-Technologies-A-Study.pdf>
2. Saxena, A., & Yadav, R. D. (2013, October). Impact of mobile technology on libraries: A Descriptive study. *International Journal of Digital Library Services*, 3(4). Retrieved April 29, 2018, from [http://www.ijodls.in/uploads/3/6/0/3/3603729/vol-3\\_issue-4\\_part-1.pdf](http://www.ijodls.in/uploads/3/6/0/3/3603729/vol-3_issue-4_part-1.pdf)
3. Sharma, D., & Sahoo, D. R. (2014). Application of Mobile Technology in Library Services: An Overview. *International Journal of Information Technology and Library Science*, 3(1), 17-24. Retrieved May 05, 2018, from [http://www.irphouse.com/ijitls/ijitlsv3n1\\_03.pdf](http://www.irphouse.com/ijitls/ijitlsv3n1_03.pdf)
4. Singh, K., & Nikandia, P. K. (2017, March). Role of Mobile Technology and their Application in Library Services in Digital Era. *International Research Journal of Library and Information Science*, 7(1). Retrieved May 15, 2018, from <http://irjlis.com/role-of-mobile-technology-and-their-application-in-library-services-in-digital-era/>
5. Suthar, A. A. (n.d.). Using Mobile Technology to Deliver Effective Library Services. *e-Science World*. Retrieved May 05, 2018, from <http://www.escienceworld.org/index.php/ajlis/article/download/15/15>.

## **Saktism as a Religious Belief and Its Practice among the Kaibartas of Kukurmara Village, Assam: A Study**

**\* Diganta Kumar Das**

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**Abstract-** *Saktism is a dominant cult in Hinduism. It had developed as a concept of worship of female deity in a very remote past. From this belief the concept of fertility goddess had been come into being which in subsequent time began to be called by different names. Assam is known for the growth and development of Saktism. Historic shrine Kamakhya is the remarkable seat of this faith. In course of time more sakti shrines emerged out in Assam. Being an aboriginal community of Assam, Kaibartas are also known as the follower of Saktism. The inhabitants of the Kaibarta village named Kukurmara of the district of Kamrup; Assam is noteworthy for their belief and practices associated with Saktism. The famous shrine of Chandika situated in South Kamrup is considered as very much sacred by the Sakta Kaibartas of this village. Through this paper it is attempted to highlight on Saktism as a religious belief as well as Kaibartas' inclination to this belief.*

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**Keywords:** Cult, Hinduism, Female deity, Fertility goddess, Kamakhya, Shrine, Chandika, Kaibarta.

**Introduction:** Kaibarta is an ancient community of India whose traditional occupation is fishing. Ethnologically Kaibartas are stated to be Dravidian. As per 2011 census Kaibarta is the dominant scheduled caste community in Assam. Kukurmara is such a village where cent percent of the population belongs to Kaibarta community. Being a Hindu community Kaibartas basically observe Vedic ritual as their religious belief. Most of the inhabitants of this village follow Saktism and Saivism in equal reverence and spirit as their main religious belief. Rest others follow Neo-Vaisnavism. Their belief and practices associated with Saktism are marked by certain features. These constitute some important component of folklore and folklife.

**Objectives of study:**

1. To study Saktism as a religious belief
2. To examine the belief and practices of the Kaibartas associated with the worship of *Chandika*

**Methodology:**

The study is based on both primary and secondary sources. Primary data was collected through interaction, questionnaire and personal observation.

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Treatises and different published works were consulted as secondary data.

### **Saktism as a religious belief:**

Saktism is a religious belief of Hinduism. According to this belief, there is a primordial source which is regarded as the root of the phenomenal world. It is believed as energy i.e. *sakti* in Sanskrit which is personified in the form of a female. The female figure is adopted as Goddess and devotees adheres to this faith is known as *Sakta*. The rituals and philosophy associated with this belief is known as Saktism. It is the *Sakti* which is believed to be functioned as the creative and preservative force which brings this universe into existence and preserves it from the destructive forces. *Durga* is believed as the presiding deity of this cult. She is also believed as the embodiment of the earth. In other words she is considered as the life force of all living creatures. Thus *sakti* is mother goddess who serves as a general fertility deity. It is a deep rooted religious and historical phenomenon which evolved throughout the ages in the world. From the middle- east to the far –east this concept is seen manifested in different forms. The concept of *Sakti* in its broad sense is a pan Indian phenomenon. In India this deity is usually known as *Devi*, *Durga*, *Kali*, *Kalika*, *Uma*, *Kamakhya*, *Tara*, *Candi*, *Camunda*, *Vindhyavasini*, *Sakambari* etc. Various names indicate different forms or manifestations of the same goddess ( Barpujari, 2007 : 317). Saktism had been prevailing widely in Assam since ancient period. It was a dominant cult of Assam till the propagation of neo-Vaisnavism by Sankaradeva. The two principal works composed in Assam, *Kalika Purana* and *Yoginitantra* deals mainly with *Sakti* cult (Kakati, 2004:34). Kamakhya and Dikkarvasini situated in Guwahati and Sadiya respectively flourished as the principal centres of Saktism (Sarma, 1996:6). According to Dr. Banikanta Kakati (2004) the trend of *Sakti* worship in Assam can be classified into four categories - Goddess *Kamakhya* as the symbol of mother, Goddess *Parvati* as the symbol of wife, Goddess *Tripurasundari* as the symbol of virgin and Goddess *Kesaikhaiti* as the symbol of destruction. One mode of propitiation in Saktism is the animal sacrifice to the goddess. In Kamakhya shrine even human sacrifice was offered to goddess. Examples of the existence of mother goddess or *Devi* in tribal religion show that in the development of Saktism, the contributions of non-Aryans were greater than that of the Aryans. This view can be supported by the prevalence of mother goddess or *Devi* among the indigenous people of Assam. In this context mention may be made of such goddess propitiated by different tribes of Assam. Another renowned scholar Dr. Nirmal Prabha Bardoloi in her celebrated work on *sakti* cult entitled *Devi* (2014) has given a list of such goddesses believed by different tribes of Assam. Among these remarkable are *Budi gosai* worshipped by Jayantia, *Kamoikha* of the Khasis, *Khumaikha* of the Bodos, *Devi Tamai* of the Rabhas, *Kalika* of the Tiwas etc. Inhabiting this region since the ancient times the matrilineal tribal people established the root of Assamese folk culture. Thus it can be said certainly that Saktism had

a non –Vedic or non-Aryan origin which was later brought in line with the Brahmanical thought.

**Belief and practice of saktism among the kaibartas of kukurmara village:** Traditionally Kaibartas are regarded as low caste people in Hindu society. A section of them follows Neo-Vaisnavism propagated by Srimanta Sankaradeva while a small section embraces *Krisnaguru Nama Dharma* propagated by Arun Deva Goswami. However most of them theologically are polytheist as they believe in the existence of different gods and goddesses of all India spread. But majority of them like to adhere to Saivism and Saktism.

**(A) Worship of Durga:**

*Durga Puja* is the main religious festival of the *saktas*. *Sri Sri Chandika Devalaya* is indisputably the most remarkable among the different *sakti* shrines of South Kamrup. Its presiding deity is *Chandika* which is believed to be a local representation of all India spread goddess *Durga*. According to *Padma puran*, a literary work of the later part of the 16<sup>th</sup> century reveals that this temple was built by Chando Sadagar, a rich merchant. This temple is located in the legendary kingdom of Champak (present Champaknagar) near modern Chhaygaon. Kaibarta devotees throng this shrine throughout the year. People belonging to this village mostly take part on *Durga Puja* held at Kukurmara, Chandika and Chhaygaon. Thousands of devotees offer prayer to mother Chandika during *Sharadio Durga Puja* which is held annually in autumn season and on the Assamese month of either *Ahin* or *Kati* (October-November) with a five day programme. The *puja* held on the third day is known as *Mahastami puja*. It is believed as auspicious one by the *Sakta*. On this day blood sacrifices are offered to *Devi*. Devotees offer he-goats, pigeon and gourds to *Chandika*. Buffalo sacrifice is considered as the most important custom of this day. Kaibartas take part in offering these sacrifices with great zeal and fervour. It is noteworthy that the Kaibartas are very prone to take vows to offer he-goats or pigeons as sacrifice to *Chandika* in case their respective desires and expectations are fulfilled. Such practices are deeply rooted among the Kaibartas.

At the end of *Navami puja* a special religious function is celebrated in which Goddess is rotated for seven times installing in a palanquin symbolising Goddess' journey to her parental home. It is followed by another tradition which is known as *hengar bhanga*. It is believed that after her farewell on the day of *Dashami puja*, *Devi* enters her parental home and after that she leaves for her own home where she meets *Siva*, her husband face to face. It leads to a mythical quarrel between them on the ground of *Devi*'s departure to her parental home without the consent of *Siva*. This is a symbolic conflict between *Siva* and *Durga* on which one priest supposed to be taken the side of *Siva* and other one in favour of the *Devi*. *Siva* accuses *Devi* of having blood of the sacrificed animals and also of drinking wine. *Devi*'s attempt to prove her innocence goes in vain. *Siva* declines her to enter his home. Instead he

calls her to use her *Sakti*. He also sets condition if her devotees can defeat his devotees then she can enter his home. Instantly the both parties engage in a tussle. Devi's devotees easily defeat the devotees of *Siva* who are driven away by the formers. But *Siva* poses hurdle again by placing a bamboo at the door while *Devi* attempts to enter her home. He asks her devotees to bring *Devi* to her house breaking the bamboo. Instantly *Devi* worshippers break the bamboo. This is known as *hengar bhanga* custom. Devi's side is strengthened mainly by the Kaibartas of Kukurmara. This tussle ends with the *hengar bhanga*. *Hengar* i.e. a barricade made of *bholuka bah* (a species of thick bamboo) coloured with vermilion is believed to be blessed by goddess *Chandika*. Each of the people attempts to acquire a small bit of the bamboo by pulling it into one's own side. To have a piece of this bamboo is considered as a sign of good fortune. This bamboo is mostly broken by the Kaibartas of Kukurmara and major parts of the bamboo are taken by them. In this regard there is a belief among them. According to them if a small bit of this bamboo can be fastened as a part to any fishing instrument which they believe it will bring to them a favourable fishing (Thakuria, 2014: 94).

**(B) Immersion of The Idol of Chandika:**

Immersion of the *Devi* takes place on the day of *Dashami*. Immersion of the earthen idol of *Chandika* along with the other assemblage of images on this auspicious day is a significant occasion for the Kaibartas of Kukurmara. This is an old practice that has been performing by the Kaibartas of Kukurmara. They have been entrusted to perform this ritual by the *Chandika* shrine management committee. According to legend, once *Chandika* appeared before Jalo-Malo, the two Kaibarta brothers, in their dream, when the goddess expressed her wishes. Unveiling her hidden desire, the goddess told them that she wished to go to the immersion ground being carried her image along with other deities on the shoulders of the member of Kaibartas only. Since then immersion of the idol of *Chandika* by the Kaibartas of this village has become a tradition. In this context village folks belief is that mother goddess *Chandika* wants always to go for immersion only on the shoulders of the Kaibarta devotees of Kukurmara. It is also learnt from the study that once devotees other than Kaibarta took the *Devi* idol for immersion. But they could not perform this ceremonial task satisfactorily. Since then except the Kaibartas, other *Sakatas* are not allowed to perform this ritual.

Having prepared themselves Kaibarta devotees of Kukurmara arrived at the shrine to take back *Devi* for immersion in the river Kalahi. They take roasted *goroi* fish at their home before leaving for *Chandika* shrine. Devotees of *Chandika* shrine arrange a feast for them prepared by pigeon and he-goats. Having performed the *Dashami puja* the shrines management committee formally handed over the image of the *Chandika Devi* along with the assemblage of other images to the Kaibartas. Thus the *Devi's* return journey to her resort begins where not less than hundred both Kaibarta and non –

Kaibarta devotees participate. It is a long ceremonial procession of about five kilometres on the N.H. 37. In this journey image of *Chandika* ceremonially carried by about twenty Kaibarta men on their shoulders. Assemblage of other images however put on a decorated vehicle owned by a Kaibarta devotee of Kukurmara. They show a strong tendency for carrying the idol of *Chandika* on their shoulder. They believe that carrying the idol on their shoulder is a sacred duty. To them it is a mean of earning religious merit. They also believe that this can make them get rid of their sins that they commit in their day today life. Throughout the period of procession, people pay homage to mother *Chandika*. After reaching Kukurmara village the *Chandika* idol and her assemblage of images are placed on the gateway to the Kukurmara village where womenfolk wait eagerly to adore the *Devi* with flowers, earthen lamp, and incense and resin. Before installation of the image they rotate round it seven times amid the devotees. Constant bursting of crackers marks the occasion. Having installed the idol in the gateway to the village, Kaibartas offer congregational prayer to *Chandika*. They offer items like fruits banana, coconut to the goddess *Chandika*.

Later on the idol is brought to the Kukurmara market and the same is installed in front of Kukurmara police outpost for the people congregated there. In the evening finally the *Chandika* idol is made prepared for the immersion in the river Kalahi. Images are put on two or three boats owned by people of the locality. Finally with merry making, bursting of crackers, the immersion of the *Devi* along with assemblage of the images is performed in the river Kalahi.

*Devi Chandika* plays a significant role in shaping the religious belief of the Kaibartas of Kukurmara. They even chant the name of *Chandika* in the observance of some other religious occasions which are not directly related to Saktism. They consider *Devi Chandika* as the deliverer of their all sorrow and sufferings. It is learnt from the study that there occurred a deadly plague in this village about 50 years back. Altogether 77 people were died of this disease creating panic among the villagers. They vowed to sacrifice a buffalo before goddess *Chandika*. They accordingly performed it and thus got rid of the disease.

**Conclusion:** Saktism is essentially a part of folk religion prevalent in Assam in all the ages of the history of Assam. There are some folk elements like *oja pali*, *arati*, *nagara nam*, *yatra party* etc. associated with Saktism. Kaibartas are the active bearers of the above mentioned performing art forms. It is a historical fact that age old religious beliefs and practices of the Assamese society received a set back by the emergence of neo-vaishnavite movement. Kaibartas too could not escape of the impact of this renaissance which swept away Assam. Because a considerable section of the society has embraced neo-vaishnavism in recent time. In spite of all these tremendous changes like neo-vaishnavism, scientific and technological advancement, Kaibartas have

kept the tradition of saktism alive.

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**References :**

1. Adhikary, Dr. Gajendra: A History of the Temples of Kamrup And Their Management, Guwahati, 2001
2. Barpujari, H.K.: The Comprehensive History of Assam (vol.1), Guwahati, 2007
3. Bardoloi, Dr. Nirmalprabha : Devi, 2014, Guwahati
4. Kkati, Dr. Banikanta: The Mother Goddess Kamakhya, Guwahati, 2004
5. Sarma, S.N.: The Neo-Vaisnavite Movement and Satra Institution of Assam, Guwahati, 1999
6. Thakuria, Suren(ed.) : Champakar Aitihya, 2014, Chhaygaon

**Name Of informants :**

1. Sri Khagen Das (91)
2. Sri Sunil Thakuria(53)
3. Mrs. Debo Das (57)

## **Trade and Frontier Markets along the Southern foothills of Khasi-Jaintia sector in the Aftermath of Partition of India: The Historical Perspective**

**\* Shri Armstrong Swer**

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**Abstract-** *In conclusion it can be observed that trade relations between Khasi-Jaintia hills and the plain areas of erstwhile Bengal had sustained the livelihood of the people. No doubt geographical proximity and easy access between the two areas has made them interdependence in term of trade and commerce. However with partition of the country in 1947 the connection between people of both the hills and the plains was cut off unexpectedly. The shutting down of border trade and frontier markets caused untold sufferings; poverty, unemployment, lack of supply of essential items and absence of road connections with major commercial centres in the State added to this imbroglio. The whole economy of border region was disrupting. During that period, the Government had taken up various measures to uplift the shattered economy of border areas; but not much success. When Meghalaya became a full-fledged State, there had been a rapid expansion of road communication networks connecting border areas with Shillong as well as major commercial towns of the state to enable the people to supply their produce to market centres. However it may be mentioned that the demand for the horticultural products of the border areas within the state was not much in contrast with the demand by the people of plain areas of Sylhet and Mymensingh of present day Bangladesh. It must be stated here that due to long distance of the border areas from the commercial centres of the state, the cost for transporting of the agricultural products was very high. The people of border areas still facing difficulty in selling their agricultural produce and they are trying to find out alternative markets for their produce.*

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**Keywords:** Trade relations, Geographical proximity, Poverty, Unemployment

**Introduction:** The southern parts of Khasi-Jaintia Hills of Meghalaya are famous for the production of horticultural crops such as oranges, pineapples, pan leaves, betel nuts, black peppers, bay leaves, broom, etc. Rice cultivation is also widely grown in the slender strips of flat lands adjacent the plain areas of Bangladesh. These areas are also very rich in mineral wealth such as lime stone, coal, boulders and chips as well as forest products like timber etc. The

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presence of trade and commercial centres all along the southern parts of Khasi-Jaintia hills had provided an opportunity for marketing and exchanging the essential commodities as well as products both from Khasi-Jaintia hills and the plain areas of the then Bengal. The inhabitants of both these two areas are inter-dependence in term of trade and commerce for mutual benefits. Prior to India's independence most of the products of Khasi-Jaintia Hills were exported to the neighbouring plains areas of erstwhile Bengal (present day Bangladesh). In the same way the people from the hill areas imported rice, salt, dry, fish, oil, kerosene etc from Bengal. The item of trade such as *muga*<sup>1</sup> originated in the northern plain of Assam was taken across the hill sections of the plateau and sold in the border markets adjoining the southern plains<sup>2</sup>.

Geographical closeness and shared border between the two regions provided an opportunity for trade and commerce. Due to accessible of these two areas, the cost of transporting of goods is moderately less and the trade linkage was more feasible. During those periods there were free flows of goods between the two areas. The lucrative trade had sustained the livelihood of the people and contributed wealth especially for the border villages of *Ri War*<sup>3</sup>. In the pre-partition periods, the villages of southern foothills of Khasi-Jaintia sector thrived primarily because of the presence of free trade between the inhabitants of the hills and the plain areas of Bengal.

Trade between the two areas was considered as the lifeline of the people living in border areas. In many ways it sustained the living of a large number of producers, sellers, workers and porters especially from Khasi-Jaintia Hills. The pre-partition period was considered as 'the golden age of trade'<sup>4</sup>. The economic ties between the people of border regions of Khasi-Jaintia Hills with the counter parts of Bengal also influenced their life styles and thoughts and they even considered themselves somewhat varied economically and culturally from their brethren living in the highlands. Some expressions of these interactions were acceptance of Hindu faith and customs among the section of Khasis in *Ri War*<sup>5</sup>. It is imperative to mention that the great earthquake of 1897 that had brought about a great destruction in Khasi-Jaintia Hills and affected the economy of the people, nevertheless it could not rob the region of its affluence. It signified that the existence of free trade as well as frontier markets enabled the people to overcome even in some adverse effects of natural catastrophe like earthquake.

#### **Partition and its consequences:**

The partition of the country in 1947 created unnatural border and the age-old trade ties with the parts of Bengal (now Bangladesh) was snapped<sup>6</sup>. The border was closed; check posts were set up to prevent trespass across the international border. The shutting down of border trade and frontier markets caused untold sufferings to the people. It was an unexpected fall from the period of prosperity to scarcity. The situation further aggravated in the absence of road connections of the frontier villages with the important towns

of the State. There were no efforts before partition to develop road communication systems of those areas with the other parts of the State and no necessity was felt to provide markets for products of border areas within the State<sup>7</sup>. In the absence of road communication networks, for transporting the agricultural produce especially the perishable items became non-economic in nature. While commenting on the impact of closure of trade and commerce, Donkumar Roy<sup>8</sup> said, “it was a sudden fall from the period of prosperity to the period of depression”.

The partition of the country brought immense hardship on the border people. Owing to the shutting down of all the trade and frontier markets, the import of essential commodities from across the plain areas of Sylhet and Mymensingh were stopped abruptly. After the partition all famous frontiers markets such as Shella, Majai (Bholaganj), Phali, Balat, Tyllap etc became deserted and insignificant. As a result the people of these areas faced acute shortage of essential commodities and the situation compelled them to eat with wild roots and vegetables. The whole economy of the border region was completely shattered, and the countryside which once hummed with activity and abundance was over shadowed with unemployment, poverty and misery. The partition of the country cut off the normal outlets of the produce of the border areas of Meghalaya affecting about 1500 villages with a population of 1.75 lakhs<sup>9</sup>. These figures mean 36% of the total area of Meghalaya and 23% of the total population. Thus it signified that the people faced a severe problem. The economy of the region suffered and income and investment have declined tremendously.

With the partition of the country, the marketing facilities came to a standstill and the border markets were sealed off. The products of the southern parts of Khasi-Jaintia Hills perished in the absence of markets and natural resources such as limestone, coal were dumped unutilized. At that critical situation, businessmen took advantage and purchased the products and goods from the local producers at a very cheap price. In this way the local producers were the losers and no option but to accept whatever price that was paid to them. In the absence of cold storage and other facilities to preserve the perishable items, the local producers were at disadvantage, where as the businessmen were at advantage position where they can monopolize trade freely.

Therefore the people living in the southern parts of Khasi-Jaintia Hills was in dilemma and cannot take any decision what to do or not do - whether to carry on their own traditional agricultural practices or stop it which mean starvation. In such a critical situation, some sections of the inhabitants of border areas were compelled to leave their own homes and villages. They abandoned and sold away all their own orchards and plantations in search of new lands for cultivations in other places such as the Bhoi area<sup>10</sup> and other places within the state as well as outside the State such as Cachar District and

Karbi Anglong of Assam. Some sections of the people from both sides the two countries risked their own lives and cross over the border<sup>11</sup> to sell their produce. The closure of frontier markets also compelled the people of border areas to take recourse to illegal trade practices through porous border which was absolutely unknown before. Due to poverty, unemployment, loss of livelihood, more so generated after partition, many people on both sides of the international border, at the risk of their of their own life, continued illegal trading business to survive. This kind of practice still continues till these days even though not very successful.

Those *war*<sup>12</sup> who had left their own border villages; they have taken with them the quality of hard labour and business expertise to transform the economy of the Ri Bhoi area. In fact, it takes a longer period for the people to restart again their groves and plantations and till these days, it still seems to be a far-away target to achieve the level of pre-partition prosperity.

#### **The measures under taken by the Governments:**

The Government of India also acknowledged the fact that re-opening of border trade and frontier markets with Pakistan was a difficult issue and time taking which had to be under taken at bilateral levels between the two States. Therefore alternative sources of livelihood for the border settlers were the concern of the government. Consequently several steps and measure were taken up by the government to improve and restore the devastated economy of border areas. The earliest experimental measure was an air lifting of oranges from Shella to Calcutta in the early fifties. However, the air lifting proved to be temporary and insufficient and failed to cover even a substantial portion of oranges produced in the border areas. In such a condition, it had to be abandoned only after a few years of operations<sup>13</sup>.

The Government of Assam also appointed three committees for the Garo Hills, Khasi Hills and Jaintia Hills and Mizo Hills separately to examine and report about the current economic conditions of border areas and make recommendation of suitable measures<sup>14</sup>. The Committees for the Khasi, Jaintia and Garo Hills submitted their reports in 1958. The Committee for the Khasi and Jaintia Hills recommended some important measures such as subsidy for border products and opening of fair-price shops in the border areas and it found that there was scope of improvement in administration of these measures. The committee also felt that the problems of the border people could not be solved through rehabilitation of the people. Therefore the committee emphasized and stressed much on the point that self reliance of the people should not be undermined. Despite best efforts of the Assam Government to handle and tackle the problems of the people of the border areas, conditions remained static and caused a big challenge to the leadership of the Autonomous State of Meghalaya in 1970<sup>15</sup>.

Besides the above, another two committees i.e. the Iyenger Committee and Lal Singh Committee were constituted by the Government. These two

committees recommended some measures such as construction of roads for marketing of products of the border areas, subsidizing food stuff to the inhabitants of border areas, setting up of fruit preservation-cum-canning factories in border areas.

Another option was sought in finding out markets for the products of the border areas within the state and other parts of the country that depended very much on the expansion and connection of road communication networks of border areas with the important commercial towns of the state. As the matter of fact, the problems of the border areas were approached from the point of encouraging alternative crops which had better market within the state and which were less perishable compared to traditional products of the border areas. Another proposal that was put forward to the Government was that the minerals of the southern foothills of the state might be helpful to promote certain small/medium industries in the border areas that would open avenues of employment to the inhabitants of the areas and lift up their economic conditions. However, for urgent relieve, there was an insistent demand for temporary measures like assistance in cash and kind to the inhabitants of border areas.

The Government of Meghalaya in 1971 had also taken all out efforts in order to revive border trade and border markets to some extent by permitting Pakistani traders to come to certain specific markets on the Indian side of the international border<sup>16</sup>. At that point of time there were fourteen border centres which were permitted on specific days and the Government of India had made efforts for opening up twelve more points in different parts of the border areas. As an experimental measures, Pakistani traders was allowed temporarily to come to Shella market(*Hat Shella*) in boats four days a week for the purpose to collecting shingles, boulders and limestone.

The re-opening of trade and a few markets for a short time, gave the impression about the fact that the people living in both sides of the international border shared the same suffering arising from the closure of trade and border market/*hats*<sup>17</sup>. It must be stated here that numbers of border markets were limited for trade transactions with East Pakistani traders. The people of border areas were demanded for activating more border markets so that the products from both sides the international border can be exchange easily. Consequently it would help to resolve and strengthen the deteriorating economy of the people of border areas. As a rule, to carry out trade transactions with a foreign country, it was the prerogative of the Union Government to frame rules, regulations and convince the foreign country for trade dealings. In case of opening up of more frontier markets and reviving border trade in the southern borders of Meghalaya, it depend much on the wisdom and farsightedness of the leaders of the Union Government. The dealings with Pakistan Government were complicated affairs and need to be handling carefully. In spite of the Union Government best efforts to convince and impress on the Pakistani Government

to revive traditional trade the response was not positive.

When Meghalaya became a full-fledged state in 1972, it was realized by the Government that development of road communication networks is a pre-requisite condition for restoring the economic conditions of the border areas<sup>18</sup>. The produce of the border areas which used to be exported southwards to Sylhet and Mymensingh of Bangladesh has to be diverted to northwards to Shillong then to the plain areas of Assam as well as to the other part of the country. Despite this urgent need and necessity, the construction of roads that links the southern border areas was not up to the mark or level of expectation. B.B. Lyngdoh<sup>19</sup> former Chief Minister of Meghalaya in the Meghalaya Legislative Assembly stated, "The State Government is keenly aware of the suffering and distress prevailing in the border area due to the suspension of border trade. It is an act of knowledge and fact that the developmental programmes in the area have not kept pace with the requirements. The economic condition of the border areas has shown deterioration as combined effort of all these factors. A crash scheme for marketing of border producers was under taken with a view to facilitating the disposal of the border producers at reasonable prices both inside and outside the state".

The relief measures were also under taken in the areas with a view to relieving distress among people. The programme for development of border areas submitted to the Government of India include the schemes for setting up of corporation for marketing of border produce as well as the scheme for improving communications and infra-structure decided in the light of the special prevailing conditions in border areas. The magnitude of the problem can also be judged from what the then Governor had said in his speech in 1974. L.P.Singh<sup>20</sup> former Governor of Meghalaya in his address to the Meghalaya Legislative Assembly stated, "The honourable members will share's my Government concern at the economic condition of the border people. My Government has set up separate department exclusively to deal with the problems of border areas. This is a measure of my Government's anxiety to step up the tempo of developmental activities in the border areas".

The Government's effort to contain the deteriorating economy of the people of border areas as a result of the closure of trade and border *hats* was manifested in different ways. The government felt that the developmental programmes in the border areas have to be taken up on both short term and long term basis. The most important ones were alternative crops to be grown, alternative markets for the border products, development of communication, provision of subsidy to the transport of border products and supply of essential commodities, cash crops, marketing and social services, etc. The Government has work for speeding up of developmental works in the fields of road communication system.

### **Conclusion:**

In conclusion it can be observed that trade relations between Khasi-

Jaintia hills and the plain areas of erstwhile Bengal had sustained the livelihood of the people. No doubt geographical proximity and easy access between the two areas has made them interdependence in term of trade and commerce. However with partition of the country in 1947 the connection between people of both the hills and the plains was cut off unexpectedly. The shutting down of border trade and frontier markets caused untold sufferings; poverty, unemployment, lack of supply of essential items and absence of road connections with major commercial centres in the State added to this imbroglio. The whole economy of border region was disrupting. During that period, the Government had taken up various measures to uplift the shattered economy of border areas; but not much success. When Meghalaya became a full-fledged State, there had been a rapid expansion of road communication networks connecting border areas with Shillong as well as major commercial towns of the state to enable the people to supply their produce to market centres. However it may be mentioned that the demand for the horticultural products of the border areas within the state was not much in contrast with the demand by the people of plain areas of Sylhet and Mymensingh of present day Bangladesh. It must be stated here that due to long distance of the border areas from the commercial centres of the state, the cost for transporting of the agricultural products was very high. The people of border areas still facing difficulty in selling their agricultural produce and they are trying to find out alternative markets for their produce.

#### Endnotes:

1. Muga refers to Assam Silk.
2. Syiemlieh David R., "Trade and Markets in the Khasi-Jaintia Hills: Changed conditions in the 19th and 20th Centuries" in David R Syiemlieh and Manorama Sharma (eds), *Society and economy in North East India*, Regency Publications, New Delhi, 2008, p.51.
3. Ri War refers to those regions/areas of southern parts of Khasi-Jaintia Hills of Meghalaya facing Bangladesh.
4. Roy Donkumar, *A Configuration of poverty in Border Areas of Meghalaya*, PhD Thesis, Economic Department, NEHU, 1987, p.90.
5. Kumar, B.B., "The Border Trade In NEI: The Historical Perspective" in Gurudas Das and R.K.Purkatastha, (eds.), *Border Trade: North East India and Neighbouring Countries*, Akansha Publishing House, New Delhi, p.10.
6. Bhagawati, Dhiren, *Meghalaya: Issues and Legacies of Its Early Years*, DVS Publication, Guwahati, 2007, p.132.
7. Former Chief Minister of Meghalaya as well as a noted Representative from Border Constituency(Shella) to the Meghalaya State Legislative Assembly.
8. Meghalaya Assembly Debate, 1971, No.7.
9. Lyngdoh, Joyce, *Trade and Markets in 18th and 19 centuries in the southern foothills of Khasi Hills*, M.Phil Dissertation, Department of History, NEHU, Shillong, 1990, p.60.
10. Gassah, L.S., "Effects of Partition on the border marketing of Jaintia Hills" in

- J.B.Ganguly (ed.), *Marketing in North east India*, Omsons Publications, New Delhi, 1984, p.66.
11. *War* refers to those people living in the southern parts of Khasi-Jaintia Hills.
  12. Roy, Donkumar, *Op.cit.*, p.92
  13. Bhagawati, Dhiren, *Op.cit.*, p.133.
  14. *Ibid*
  15. Meghalaya Assembly Debates, 22nd March, 1971, no.7.
  16. Gassah, L.S., *Op.cit*, p.68.
  17. Roy, Donkumar, *Op.cit*, p.92.
  19. Meghalaya Assembly Debates, March 1973.
  20. Meghalaya Assembly Debates, March, 1974.

## **Organizational Commitment and Perceived Organizational Support among Public and Private Sector Employees: A Comparative Study**

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**Abstract-** *In the present study in attempt has been made to compare organizational commitment and perceived organizational support among the public and private sector employees. It was hypothesized that there would be significant differences found between the mean scores of organizational commitment and perceived organizational support of public and private sector employees. The sample consisted of 300 respondents out of which 150 were employees of public sector (MPERVVCL, Regional Office, Rewa) and 150 were employees of private sector (Prism Cement Ltd. Mankahari, Satna). The selection of the sample was purposive. The employees were matched on age, sex and educational status. The sample comprised of only male subjects and their age ranged from 25 to 58 years with a mean age of 46.2 years. In the present investigation the tools which have been used are Meyer and Allen's (1997) organizational commitment scale and Eisenberger et.al. (1984) perceived organizational support (POS) scale along with the personal data sheet developed by the investigator. Data was collected on 150 private and 150 public sector employees. The data obtained on 300 participants on the various scales were scored and then after subjected to statistical analysis. Means, Standard deviations and t-ratios were computed. The data was analysed by using the software SPSS 18. The results supported the hypothesized predictions. The results showed that organizational commitment and perceived organizational support was experienced more by public sector employees in comparison to private sector employees. There were significant differences found between the mean scores of organizational commitment and perceived organizational support among public and private sector employees. The results are discussed at length in the full paper.*

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**Keywords:** Organization, Organizational Commitment and Perceived Organizational Support

**Introduction:** The organization serves as an important source of socio-emotional resources positive valuation by the organization provides an indication that increased effect will be noted and rewarded. Work is a complete

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concept which has many facets. Work is defined by organizational theorists as an exchange process that employees put their effort and commitment and get physical and emotional benefits which the organisations offers them. This exchange relationship between employer and the employee emphasizes the result that organisations achieve favourable and desirable outcomes by treating them generously. (Gould, 1979; Levinson, 1965)

### **Concept of Organizational commitment:**

The term commitment means “engagement or involvement that restricts freedom of action” (Oxford Dictionary). Organizational commitment was introduced in the field of Organizational Behavior in the early 1950s and ever since it has continuously been taken as the topic of interest (Aryee and Heng, 1990; Meyer and Allen, 1997; Baruch, 1998; Mowday, 1998). Many studies have been taken into account on organizational commitment because of the harness potential benefits. As indicated by Meyer and Allen (1997); Mowday (1998) organizational commitment can lead to favourable benefits such as organizational effectiveness, reduce turnover, improve performance, and reduce absenteeism, if managed properly. Organizational commitment has been studied in all sectors (non profit, public, private) even internationally. In early research organizational commitment was focused to define the concept now it continues to examine the two popular approaches commitment-related behaviors and commitment-related attitudes. In past thirty years many different outcomes and antecedents have been identified (Angle and Perry, 1981; Mowday et al, 1979; Hall, 1977).

### **Concept of Perceived Organizational Support:**

According to Cropanzano and Greenberg (1997) perceived organizational support is effected by structural aspects includes formal rules and policies decisions and their implementations regarding employees whereas social aspects contains employees are being treated with respect and decorum and providing them with information how to determine final results. The word supervisor is used for organization as employees are well aware that their assessment is often conveyed to upper management and further employees associations of supervisor support contribute to perceived organizational support (Kottke and Sharafinski, 1988; Malatesta, 1995; Rhoades et al., 2001; Shore and Tetrick, 1991; Yoon, Han, and Seo, 1996; Yoon and Lim, 1999). Friendly behaviour results in positive relations with co-workers and supervisors whereas negative affectivity results in unfriendly and aggressive behavior which prohibits the development of favourable working relations and reduces perceived organizational support. According to Aquino and Griffeth (1999) as a result of organizations treatment with employees their behaviour is effected which in return might influence perceived organizational support.

### **Review of Literature:**

It is noteworthy to consider the fact that a high level of organizational commitment is necessary for an enhanced level of performance. Porter, Steers,

Mowday and Boulian (1974) have observed that individuals highly committed to an organization's goals and willing to devote a great deal of their energy towards those ends would be inclined to remain with the organization. Staw (1976) has noted that negative consequences may actually cause decision makers to increase their commitment. Steers (1977) has found that work experiences are more closely related to commitment than personal or job characteristics. Marsh and Mannari (1977) have observed in their study that Japanese workers have higher levels of organizational commitment than Americans.

Fottler (1977) has reported that the failure of commitment at the top leads to a failure of commitment in staff management at the personnel department and the operating departments. Gupta (1977) in his research study conducted on the industrial workers employed in the Diesel locomotive unit in a public sector undertaking found that workers in the public sector industry were highly committed to industrial work. Sharma (1997) indicated that situational factors contribute more of organizational commitment than person related factors. Biswas (1998) suggested that performance, threat and frustration stressors are significant predictors of organizational commitment. Mishra, Dhar and Dhar (1999) have reported that enhancing employee satisfaction guarantees greater involvement and commitment on the part of the employee to his job and organization.

Moideenkutty, Blau, Ravikumar and Ahemedali (2001) examined the role of perceived organizational support as a relationship between perceived situational factors and affective organizational commitment. It indicated that perceived organizational support fully mediates the relationship between each of these perceived situational variables and affective commitment to the organization. Camp (2001) examined the effect of two types of subjective measurement of the work environment, job satisfaction and organizational commitment, which are thought to be related to turnover.

POS has been found to be related to, yet distinct from, affective organizational commitment (Eisenberger et al., 1990; Settoon, Bennett, and Liden, 1996; Rhoades, Eisenberger, and Armeli, 2001; Shore and Tetrick, 1991), effort-reward expectancies (Eisenberger et al., 1990) continuance commitment (Shore and Tetrick, 1991), leader-member exchange (Settoon et al., 1996; Wayne, Shore, and Liden, 1997), supervisor support (Kottke and Sharafinski, 1988; Malatesta, 1995; Shore and Tetrick, 1991), perceived organizational politics (Andrews and Kacmar, 2001; Cropanzano, Howes, Grandey, and Toth, 1997; M.L. Randall, Cropanzano, Bormann, and Birjulin, 1999), procedural justice (Andrews and Kacmar, 2001; Rhoades et al., 2001), and job satisfaction (Aquino and Griffith, 1999); Eisenberger et al., 1997; Shore and Tetrick, 1991). In sum, POS is distinctive construct that the SPOS measures with high reliability. POS. Support from supervisors has also been assessed with related measures involving leader-member exchange (Hofmann

and Morgeson, 1999; Setton et. al., 1996; Wayne et al., 1997) and supervisor consideration (M.W. Allen, 1995; Hutchison, 1997 a; Hutchison, Valentino, and Kirkner, 1998).

### **Objective:**

The primary objective of the study is to compare organizational commitment and perceived organizational support among the public and private sector employees.

### **Hypotheses:**

1. There would be significant differences found between the mean scores of organizational commitment of public and private sector employees'.
2. There would be significant differences found between the mean scores of perceived organizational support of public and private sector employees'.

### **Sample, Method and Procedure:**

#### **Sample:**

The sample consisted of 300 respondents out of which 150 were employees of public sector (MPERVVCL, Regional Office, Rewa) and 150 were employees of private sector (Prism Cement Ltd. Mankahari, Satna). The selection of the sample was purposive. The employees were matched on age, sex and educational status. The sample comprised of only male subjects and their age ranged from 25 to 58 years with a mean age of 46.2 years.

#### **Method and Procedure:**

In the present investigation the tools which have been used are Meyer and Allen's (1997) organizational commitment scale and Eisenberger et.al. (1984) perceived organizational support (POS) scale along with the personal data sheet developed by the investigator.

Participants for the present investigation were contacted personally and requested to act on subjects for the present study. Prior consent was taken by the chief head of the organizations before starting the data collection. First of all rapport establishment was done. The subjects were requested to cooperate. They were told about the purpose of research and assured that the information being collected would be kept fully confidential and would be used for research purpose only. First of all the personal data sheet was administered on the sample. Then after, organizational commitment scale and perceived organizational support scale were administered with an interval at gap of 10 minutes.

Data was collected on 150 private and 150 public sector employees. The data obtained on 300 participants on the various scales were scored and then after subjected to statistical analysis. Means, Standard deviations and t-ratios were computed. The data was analysed by using the software SPSS 18.

### **Results and Discussion :**

The means and SD values for organisational commitment and perceived organizational support of employees (N=300) are presented in Table 1 and

the means and SD values for organizational commitment and perceived organizational support of public (N= 150) and private (N=150) sector employees are presented Table 2

**Table 1**  
**Showing the means and SD values for organizational commitment and perceived organizational support of employees (N=300)**

Variables	Mean	S.D
Affective Commitment	36.69	2.88
Continuance Commitment	20.02	3.42
Normative Commitment	18.13	1.91
Total Organizational Commitment	74.60	7.38
Perceived Organizational Support	45.11	2.77

**Table 2**  
**Showing the means and SD values for organizational commitment and perceived organizational support of public (N= 150) and private (N=150) sector employees.**

Variables	Public Sector		Private Sector	
	Mean	S.D	Mean	S.D
Organizational Commitment	76.12	4.70	70.07	6.78
Perceived Organizational Support	46.00	2.60	44.23	2.63

A close perusal of Table 2 shows that the mean score for organizational commitment and perceived organizational support are also found to be greater in public sector employees in comparison to private sector employees. The results show that organizational commitment and perceived organizational support is experienced more by public sector employees in comparison to private sector employees.

Significant differences between means were computed in order to test the hypotheses regarding the variable of public and private sector employees. They are presented in table 3 and 4

It was hypothesized that there would be significant difference found between organizational commitment of public and private sector employees (H1). The results are presented in table 3

**Table 3**  
**Showing Statistics report of organizational commitment of public and private sector employees**

	Organisational Commitment of Public Sector	Organisational Commitment of Private Sector
Mean	79.12	70.07
N	150	150
Std. Deviation	4.700	6.784
Std. Error of Mean	.384	.554
Variance	22.093	46.028

From the calculation of t value from t test formula for 150 sample of public employees and 150 sample of private employees, the critical value of t for 2 tail test at 1 % level of significance for 298 degree of freedom is 2.59 and the calculated value of t test is 13.7. Now since ratio is significant the hypothesis is accepted that there would be significant differences found between the mean scores of organisational commitment of public and private sector employees.

It was hypothesized that there would be significant difference found between perceived organizational support of Public and Private sector employees. (H2). The results are presented in table 4

**Table 4**  
**Showing Statistics report of Perceived organizational support of public and private sector employees**

	Perceived Organisational Support Private Sector	Perceived Organisational Support Public Sector
Mean	46.00	44.23
N	150	150
Std. Deviation	2.609	2.632
Std. Error of Mean	.213	.215
Variance	6.805	6.928

From the calculation of t value from t test formula for 150 sample of public employees and 150 sample of private employees the critical value of t for 2 tail test at 1 % level of significance for 298 degree of freedom is 2.59 and .01 level is the calculated value of t test is 6.32. Now since  $t_{calculated} > t_{critical}$  hypothesis is accepted. The results level significant differences found between the mean scores of perceived organisational support of public and private sector employees.

It was hypothesized that there would be significant difference found between the means scores of organizational commitment of public and private employees. The mean of public sector employees was found to be greater (M=79.12) than private sector employees (M=70.07). The t ratio found to 13.7,  $p < .01$  level. The results supported this hypothesized prediction.

Kumari and Bhanu (2017) in their study established the association of banking sector (public/private) and managerial levels with the organizational commitment among bank employees. Questionnaire method was used to collect data on 633 managers of banking sector. Organizational commitment scale developed by Allen and Meyer (1990) was used for data collection. Regression analysis, t-test and one way ANOVA were used as statistical tools for data analysis. The results from the t-test of the study showed that the public sector bank managers were more committed towards the organization than the private sector bank managers. The affective, continuance and normative commitment are high in public sector bank managers than

private sector bank managers. The results of the present study conducted by the investigator are in line with the results found by Kumari and Bhanu (2017). Jackson and Rothmann (2006) conducted a study on organizational commitment. The findings showed that although organizational commitment had major effects on physical and psychological ill health. The effect of job insecurity on physical and psychological health of educators was moderated by it.

Kazlauskaite, Buciniene and Turauskas (2006) stated that the levels of both organizational commitment and organizational empowerments in Lithuanian upscale hotels were rather low, while the correlation between them was rather strong. This implies that improvement of conditions that foster empowerment leads to a higher level of employee organizational commitment. The level of affective commitment is of greater importance for the organization.

Commitment rests on common values and stimulates emotional attachment to the organization. In another study conducted by Tella, Ayeni and Popoola (2007) it was found that positive correlations existed between perceived motivation, job satisfaction and commitment. On the other hand, the correlation between motivation and commitment was negative. In addition, no relationship existed in the organizational commitment of library personnel based on their years of experience.

Malik et.al., (2016) examined the impact of perceived organizational support (POS) on different dimensions of organizational commitment among medical doctors in Pakistan. It also compared the level of POS and organizational commitment between doctors working in the public and private sectors. The study was conducted on a sample of 160 subjects of two private and two public hospitals. A significant, positive relationship between POS and affective as well as normative commitment was found. In addition, the results revealed an insignificant relationship between POS and continuance commitment.

It can be concluded that under social exchange theory, behaviours related to POS – such as an increase in salary, promotion, training and development or some form of assistance – are perceived by employees as a sign of the firm's concern for their wellbeing. The trust is raised and the quality of their relationship with the management is boosted. (Chen, Aryee and Lee, 2005; Cheung, 2000). A more positive attitude toward their organization is developed which increase their affective commitment. (Rhoades et.al, 2001). Kim, Leong and Lee (2005) supported the view that individuals are likely to develop a strong desire to remain part of an organization when they perceive the environment supportive.

There are several studies conducted which support the relationship between POS and normative commitment. (Meyer, Stanley, Herscovitch and Topolnytsky, 2002) From an organizational point of view, when employees

perceive that the management is supportive and concerned for their wellbeing and seeks to satisfy their needs, they feel obligated to remain loyal to the firm and this is reflected in their performance. (Aube et al., 2007). Rhoades and Eisenberger (2002) found a strong, positive relationship between POS and affective commitment, and a weak, negative relationship between POS and continuance commitment. The bulk of literature provides considerable support for the first relationship, the second is less easily established.

Generally it is observed that POS appears to lower continuance commitment. Several studies have showed that either a negative or insignificant relationship between POS and continuance commitment. (Aubé et.al., 2007; LaMastro, 1999; Rhoades and Eisenberger, 2002).

Rhoades and Eisenberger (2002) have argued that POS reduces an employee's sense of "entrapment," which builds up when he/she feels bound to continue working for an organization, given the greater cost of leaving in explaining this negative relationship. Colakoglu et.al. (2010) have stated that supportive organization is related with an employee's continuance commitment may become affective commitment. There is a considerable difference between private and public sector hospitals in terms of size, location, management systems and service quality. The current public healthcare system in Pakistan has limited resources, equipment and services compared to the private sector, but it is also far cheaper and, therefore, attracts poorer households. Fakhraei, et.al. (2015) in a study investigated the effects of organizational support on organizational commitment. Researchers have proved that organizational support encourages employees to work better and more effective. It also encourages employees to satisfy their managers and the organizational expectations as they see the organization is trying to meet their needs and improve their working lives (Erickson and Roloff, 2007).

Ucar and Otken (2001) studied perceived organizational support and organizational commitment. The mediating role of organization based self-esteem was assessed. A significant relationship between POS and affective commitment and normative commitment was found. On the other hand a negative relationship between POS and continuance commitment was found. The results revealed that organization based self-esteem (OBSE) has a partial mediating role between perceived organizational support and affective commitment and full mediating role between perceived organizational support and continuance commitment. Findings also indicated that OBSE has no mediating role between perceived organizational support and normative commitment. In the present study self esteem variable was not taken into consideration. Maybe, it might have affected the results.

### **Limitations and Suggestions :**

Like several other researches this study had also certain limitations. The primary data was collected on male employees of one organization of public sector and one organization of private sector only. Females were not

included in the sample. The results might have been influenced by this. A clearer picture could have obtained and cross comparisons could have been made if done on more organizations.

The study was conducted on employees of Prism Cement Limited Company, Satna and Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company (MPPKVVC) Jabalpur. Both companies are leading companies engaged in enhancing leadership and meet customers satisfaction. Though the work culture may be different or similar in certain respects but it was not measured so it might have influenced the results.

The employees were not classified position wise i.e. top management, middle management and lower management. The sample of the present study included all the employees irrespective of their position in the organization. It is thought that the cadre is an important variable and of worth investigating. This is a limitation of the present study.

Last but not the least, if possible, the higher authorities of the organization should pay heed to improve employee's organizational commitment and level of perceived organizational support.

#### References :

1. Allen, M. W., Armstrong, D. J., Reid, M. F., and Riemenschneider, C.K. (2008) Factors impacting the perceived organizational support of IT employees *Information and Management*, 45(8), 556–563
2. Eisenberger, R., Fasolo, P.M. and Davis-LaMastro, V. (1990) Effects of perceived organizational support on employee diligence, innovation, and commitment. *Journal of Applied Psychology*, 53, 51-59.
3. Gould, S. (1979). An equity-exchange model of organizational involvement. *Academy of Management Review*, 4, 53–62
4. Levinson, H. (1965). Reciprocation: The relationship between man and organization. *Administrative Science Quarterly*, 9, 370–390.
5. Meyer, J. and Allen, N. (1997) *Commitment in the workplace: Theory, research and application*. Thousand Oaks, CA: Sage Publications.
6. Rhoades, L., Eisenberger, R., and Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology*, 86(5), 825–836.
7. Rhoades, L., Eisenberger, R., and Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology*, 86(5), 825–836.
8. Staw, B.M. (1976) *Title, Intrinsic and Extrinsic Motivation University programs modular studies*. General Learning Press.
9. Suma, S. and Lesha, J. (2012) Job satisfaction and organizational commitment: The case of Shkodra Municipality. *European Scientific Journal* Vol.9. No.17



## **Stress Enhancement and Suicidal Risk among Young Aspirants of Our Nation: A Case Study of Coaching Institute of Kota City (Rajasthan)**

\* Nishtha Agarwal

\*\* Monika Kannan

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**Abstract-** *The research paper is based on the association between the accelerating rate of city growth, change in demographic profile, change in education system, increasing competitions, family and peer pressures to get established in the so called page 3 societies and stress among the youth. The paper presents a study of Kota city of Rajasthan, which is well known in the country as an academic hub for various coaching institutes. Urbanization refers to the population shift from rural to urban areas and the ways in which each society adapts the change. Urbanization leads to various job opportunities due to which change in education system has occurred. As a result of which parents, family members, peer group imposes thousands of expectations and pressures on their ward. It is like a rat race to become Doctors, Engineers, and Scientists etc. The study analysis such suicidal and stress prone incidences and attempts to interpret the reasons behind. The study has been conducted through an intensive field survey, interviewing hundreds of students, analyzing case studies, through a standard questionnaire for all the coaching institutes of Kota city pertaining to IIT, Engineering, PMT, and AIEEE. Results indicate that many aspirants are suffering from anxiety, stress and pressure in such coaching institutes. These centers have immense student enrollments, lengthy teaching schedules, stringent study pattern, and lack in healthy student-teacher ratio; recreational facilities etc have lead to many suicide incidences in the region. According to the, Jawahar Nagar Police Station of Kota City, there have been regular incidences of students committing suicide in Kota City. According to the, National Crime Records Bureau Report, in 2014, 45 cases were reported due to failure in exams in Kota. The research reveals that there is an earnest need of change in education pattern of such institutes in Kota. The youth feels very depressed and feels as if running a rat race of ranks and marks and not of knowledge. As today's world is Cosmopolitan Culture, it is that ideology that all human beings belong to same community, based on share morality. As city has expanded lately due to urban sprawl, South Kota has number of such educational coaching institutes coming up. This hyped urbanization level has caused disturbance in the physical and social environment of the nation.*

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**Keywords:** Urbanization, Peer Pressure, Job Opportunities, Depression, Mental Disorder, Cosmopolitan.

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**Introduction:** Career has become a challenge to all the students, but especially to the science students studying in the senior secondary schools and colleges. The modern trend is that the parents wish their sons and daughters offer science subjects for the sake of some safe and respectable career. They force them to offer this stream with a strong hope that the study of such subjects is going to be a guarantee of some good career. While doing so they even forget the mental level of their children. Obviously, many of such students as are forced to join science stream against their desire, suffer from mental pressure and even from depression. With the various coaching for the science students in Kota at the head, Rajasthan is one of the most leading education hubs in India. In Kota alone, there are thousands of science students making preparation for several competitions. The students join this coaching's generally after passing XII or X. However, some of the over ambitious and over desirous parents send their children here even after V. Because of the over burden of studies and because of being too far away from homes, generally the students suffer from several psychological problems. Traditionally speaking, the students who join Science horrible inferiority complex in them which later leads them to several unknown complications in the personality. With the arrival of the twenty first century, the craze for the study of science subjects has increased incredibly. These days every boy and every girl around all over India wants to pass the X and XII class exams with flying colours, and wants to go to Kota to join some good coaching and thus, to prepare for the various competitions associated with medical science and engineering. Day-by-day the standard of these competitions is becoming higher and higher, still most of the students are joining the science stream in order to fulfill their parents' dream of becoming doctor or engineer. However, it cannot be denied that the pressure of the parents forces most of the children to fall prey to some psychological disease because very few of the students who join coaching's in Kota succeed in achieving the goal. After spending the valuable years of their career, they come back home, and grow psychologically weak afterwards. The answer to their failure or to their return is that their parents fail to realize the educational potential in them, and wish them to work harder and harder to achieve the goal, or the students themselves fail to realize themselves. In most of the cases it is found that the journey to Kota for the coaching of science subjects results into failure, frustration and depression.

The news of the suicides committed by the students from time-to-time testifies it. Despite all this, the parents send their children to Kota to detach them from the happiness and to live in pressure even to the risk of their lives. It is true that there are several other careers, but the careers through the science stream are the first priority to most of the students and their parents. According to the reports of the students studying in the coaching's of Kota, most of the students are living under pressure just in order to please their parents.

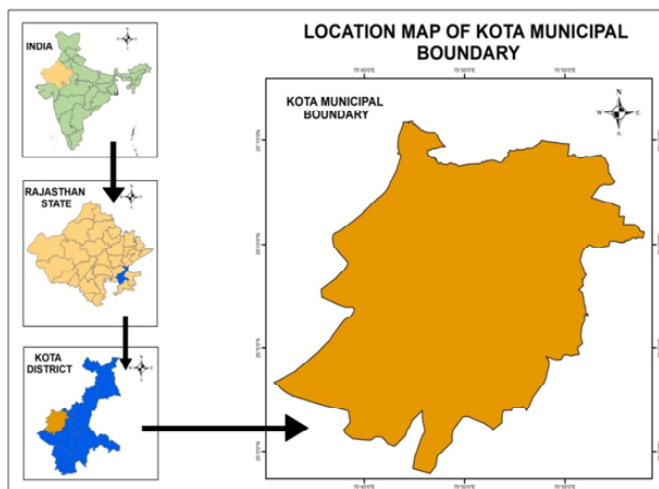
**Objectives of the Study:** The study was made with the following objectives.

- To examine the Social and Psychological impact of Coaching Institutes of Kota on the young aspirants of the region.
- To analyze the role of Teaching pedagogy, Long Class hours, Infrastructure and the Entire Coaching Culture on the physical and mental health of the students.
- To interpret the impact of family and peer pressure leading to depression and suicide among students in coaching institutes of Kota.

### Study Region:

Kota formerly known as Kotah is a city located in the southeast of Northern Indian State Of Rajasthan. It is located around 250km (155mi) south of the state capital Jaipur, situated on the banks of Chambal River. With a population of over 1 million, it is the third most populous city of Rajasthan, after Jaipur and Jodhpur, 46<sup>th</sup> most populous city of India and 53<sup>rd</sup> most populous urban agglomeration of India. Kota is a major coaching hub of the country for competitive examination preparations and has a number of engineering and medical coaching institutes.

The city of Kota was once the part of the erstwhile Rajput Kingdom of Bundi. It became a separate princely state in the 17<sup>th</sup> century. In 2013, Kota was ranked the second most livable city in the state (after Jaipur) and 41<sup>st</sup> in the country among 50 cities. The city was also included among 98 Indian cities for Smart Cities Mission initiated by Indian Prime Minister Narendra Modi in 2015 and was listed at 67<sup>th</sup> place after results of first round of Smart city mission.



### Geography of Kota:

Kota is located along the banks of the Chambal River in the southern part of Rajasthan. It is the 3<sup>rd</sup> largest city of Rajasthan after Jaipur and Jodhpur. The cartographic coordinates are 25.18° N to 75.83° E. It covers an area of 527km<sup>2</sup>. It has an average elevation of 271metres (889 feet). The district is bound on the north and northward by Sawai Madhopur, Tonk and Bundi

district, forming the natural boundary.

The city of Kota is situated at a centre of the Southeastern region of Rajasthan a region very widely known as Hadoti, the land of Hadas.

Kota lies along the bank of the Chambal River on a high sloping tableland forming a part of the Malwa Plateau. The general slope of city is towards the north. The comparatively rocky, barren and elevated land in southern part of city descends towards a plain agricultural land in the north. The Mokandarra Hills run from south-east to north-west axis of the town.

Kota has fertile land and greenery with irrigation facilities through canals. The two main canals; called as left main canals (towards Bundi) and right main canals (towards Baran) originated from the reservoir created by Kota Barrage.

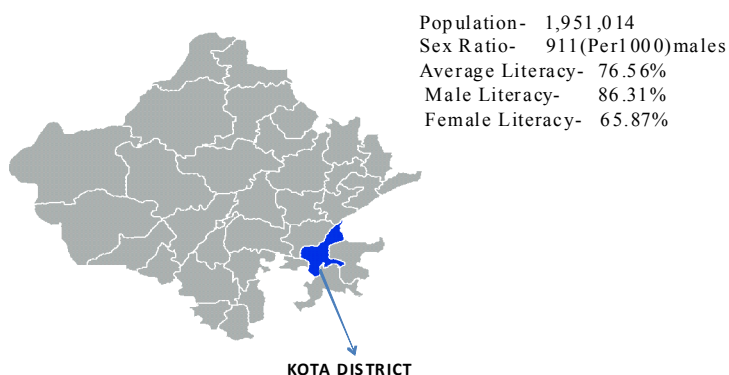
### **Climate of Kota:**

Kota has a semi arid climate (koppen climate classification Bsh) with high temperatures throughout the year. Summers are long, hot and dry, starting in late March and lasting till the end of June. The temperatures average above 40°C in May and June and frequently exceed 45°C with temperatures as high as 48.4°C also been recorded.

The average annual rainfall in the Kota, district is 660.6mm. Most of the rainfall can be attributed to the southwest monsoon which has its beginning around the last week of June and May last till mid-September. Pre-monsoon showers begin towards the middle of June with Post monsoon rains occasionally occurring in October.

The winter is largely dry, although some rainfall does occur as a result of the Western Disturbances passing over the region.

### **MAP OF RAJSASTHAN SHOWING KOTA DISTRICT**



**3<sup>RD</sup> MOST POPULOUS CITY OF RAJASTHAN**  
**46<sup>TH</sup> MOST POPULOUS CITY OF INDIA**  
**53<sup>RD</sup> MOST POPULOUS URBAN AGGLOMERATION OF INDIA**

**Data and Methods:**

The data has been collected from various sources. It is the: Jawahar Nagar Police Station various suicidal cases are Registered, Standard Detail Questionnaire was developed for all Coaching Institutes pertaining to IIT, PMT, AIEEE, Engineering of Kota city. 250 people were Interviewed, Nagar Nigam of Kota for the Maps, Statistical Department of Kota City. Census of India, National Bureau Crime Report, Newspaper, Books, Various Articles etc.

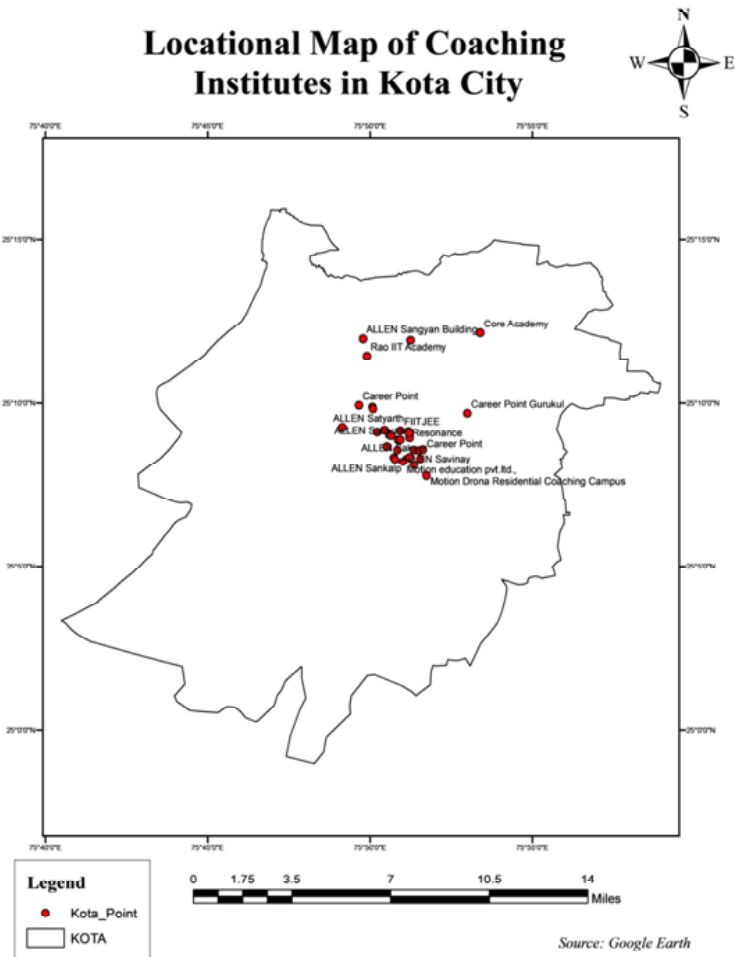
ArcGIS Software 10.2.2 was used to plot the location of Coaching Institutes on the Map.

Data Analysis was done for the data collected from questionnaire.

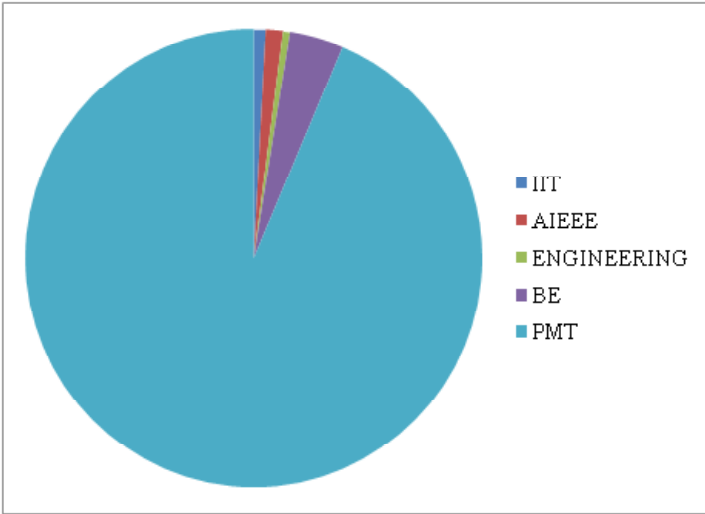
**Results and Discussions:**

The research reveals that the growth of the students in Kota city is gradually hampering the most in these coaching institutes. The research showcases that as city has expanded lately due to urban sprawl, South Kota has number of educational coaching institutes coming up. The objective of my study that condition of students in such coaching institutes, educational system is killing students day by day, the students are not able to cope up in this type of cut throat competition and environment. The study has been conducted through an intensive field survey, interviewing hundreds of students, analyzing case studies, through a standard questionnaire for all the coaching institutes of Kota city pertaining to IIT, Engineering, PMT, and AIEEE. Many students from around the country come to Kota for a higher studies and preparation of different competitive exams. Due to increasing competitiveness rat race for jobs, peer pressure is gradually hampering the growth of the youth of our nation. The research reveals that there is an earnest need of change in education pattern of such institutes in Kota. The youth feels very depressed and feels as if there is a chase of ranks and marks and not of knowledge every day. Not every student is able to handle this cut throat competition and such increasing anxiety levels and due to this competition increase in suicide rate in Kota city is increasing day by day.

With the help of ArcGIS software 10.2.2 the locationally map of coaching institutes in Kota city is generated and after locating all the institutes on the map it came to the conclusion that due to urban sprawl in the city maximum number of institutes are in the South direction and due to this the growth and development in the city is in the South direction.



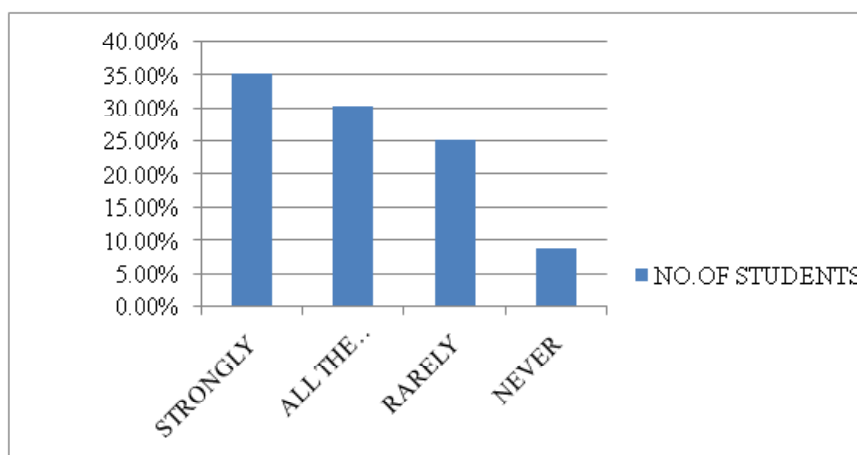
### STUDENTS ENROLLED IN DIFFERENT COURSES



COURSE ENROLLMENT	NO. OF STUDENTS
IIT	27.66%
AIEEE	5.00%
ENGINEERING	7.33%
BE	3%
PMT	23%
JEE	5.66%

The data was compiled from the questionnaire filled by the students of different coaching institutes in the city. This Pie Chart showing Students enrollment in different courses in coaching institutes as you can see maximum number of students are enrolled in IIT that is 27.66%. Every parent wishes their ward to become Doctors, Engineers, and Scientists etc. The study analysis such suicidal and stress prone incidences and attempts to interpret the reasons behind. Due urban sprawl in the city various job opportunities has occurred in the education system. As a result of which parents, family members, peer group imposes thousands of expectations and pressures on their ward. Kota is a cauldron for all these feelings, with other factors like the fear of letting down one's family, or not having any career alternatives. These centers have immense student enrollments, lengthy teaching schedules, stringent study pattern, and lack in healthy student-teacher ratio; recreational facilities etc have lead to many suicide incidences in the region. As today's world is Cosmopolitan Culture, it is that ideology that all human beings belong to same community, based on share morality. The fear factor is the reason why students suffer from anxiety, depression and the following consequences. And the fear not only comes from the school but also from parents, who go to extreme levels to push their children into getting better grades. The best time of the life that students are supposed to enjoy and cherish is the time they are pushed to extreme levels which can be overwhelming for many.

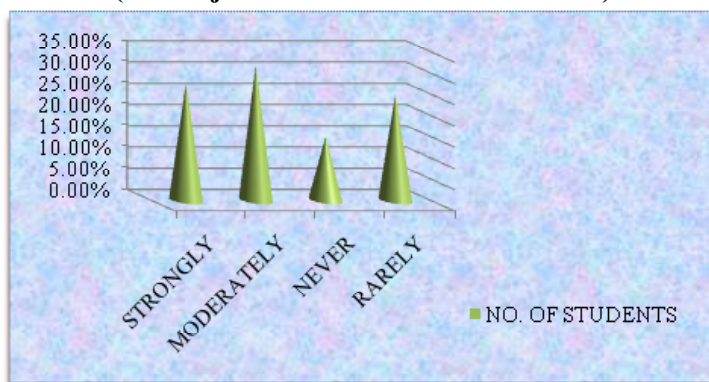
#### STUDENTS FEELS LIFE ISNT THE WAY WE EXPECTED.....



	NO.OF STUDENTS
STRONGLY	35.33%
ALL THE TIME	30.33%
RARELY	25.33%
NEVER	9%

This graph showing the life isn't the way the students expected they are forced to enroll in the science streams and now they are suffering from depression, mental disorder, and suicide also among students. Strongly 35.33% of the students feel life isn't the way they expected.

#### STUDENTS FEEL A LOT OF PEER PRESSURE (Life is just race of Marks and Ranks)

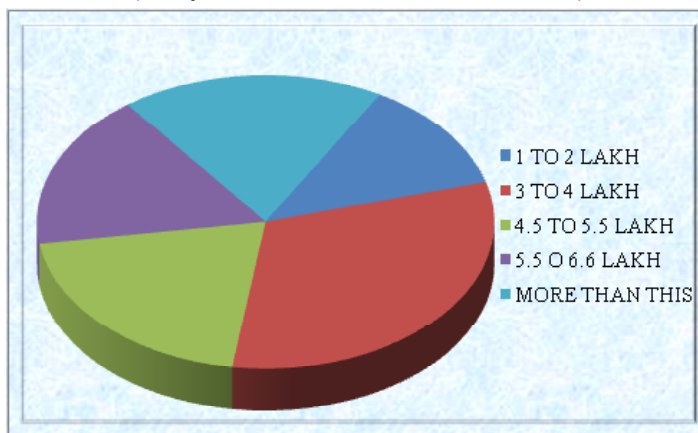


This graph predicts that students feel a lot of peer group imposes pressure, they just forget their life of living and impose a lot of pressure, they think that life is just a chase of ranks and marks and not knowledge. Students' life in Kota is running behind marks and cut throat competition they are not able to understand their caliber and actual growth and parents force their ward to become Doctors, Engineers, and Scientists

	NO. OF STUDENTS
STRONGLY	27.66%
MODERATELY	32%
NEVER	15%
RARELY	25%



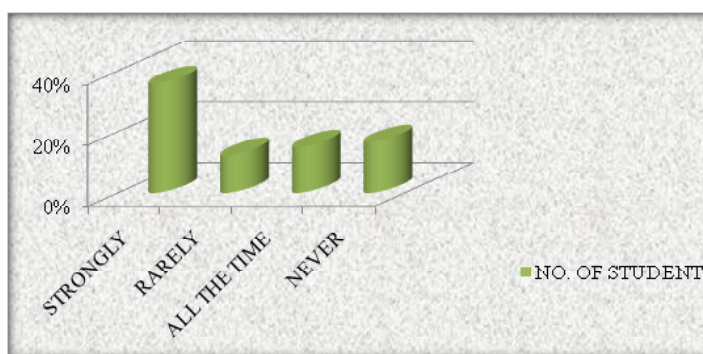
### FAMILY FINANCIAL PRESSURE (They Have Invested A Lot On Me)



This Pie chart predicts that students have lot of family financial pressure as parents have invested a lot on their ward. Parents and other family members always have a feeling that we have invest a lot of money on you now it's your time to return it back in the form to become Doctors, Scientists and Engineers. As you pie chart predicts that maximum of the parents have invested between 3 to 4 lakh rupees and not every family can afford this amount. After interviews taken it came to know that many parents had even take loans from Banks, they even sold their jewellery, many of them even mortgaged their house papers for the better education facility for their ward

	NO.OF STUDENTS
1 TO 2 LAKHS	12.33%
3 TO 4 LAKHS	31.66%
4.5 TO 5.5LAKHS	20.33%
5.5 TO 6.5 LAKHS	17%
MORE THAN THIS	18.66%

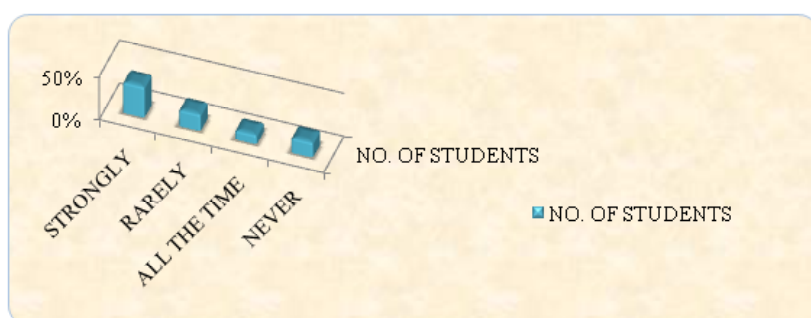
### BIASED TEACHING PEDAGOGY (Students are nothing but Robots...)



	NO. OF STUDENTS
STRONGLY	36%
RARELY	12.33%
ALL THE TIME	15%
NEVER	16.66%

This graph representing Students feel Biased teaching Pedagogy in such coaching institutes they are feeling like teachers concentrate only on the intelligent and average students. But the weak ones feel congested in that environment and feel alone and this aloneness kills them inside and inside. This graph showing that strongly 36% of students feels biasness in such coaching institutes and for the teacher's students are nothing but Robots; even they do not have personal interaction with the teachers. In these coaching institutes the students are divided in different batches according to their percentages and the students who score good marks will be taught by good and experienced teachers and the students who did not score good marks will be taught by new faculty. This kind of system is almost there in all the coaching institutes of the Kota city.

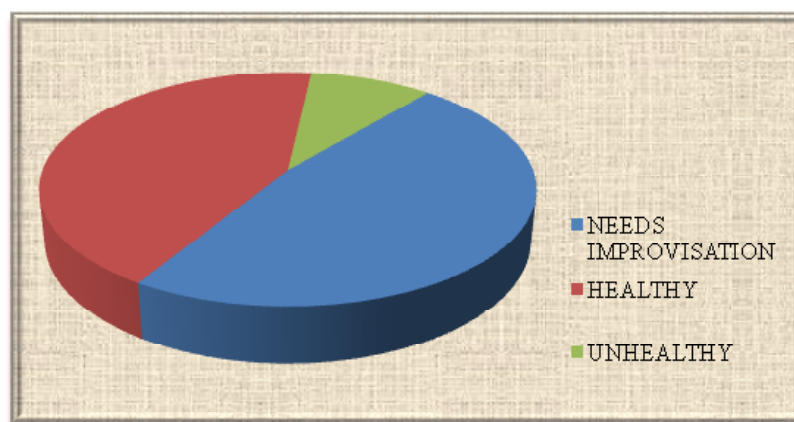
### WORLD IS TOO DARK AND DULL FEELS LIKE TO ENDING IT.....



	NO.OF STUDENTS
STRONGLY	35%
RARELY	18.33%
ALL THE TIME	10%
NEVER	16.66%

This graph representing that "World is too dark and dull. Its very crowdie and full of stress. Students feel they need to free themselves and suicide is the only option". The coaching institutes in the city made students so depressed that students feel like to kill themselves.

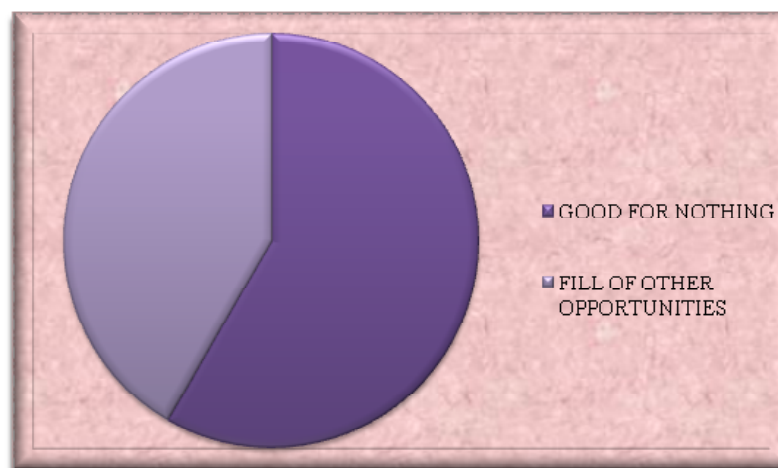
## CHANGE IN COACHING CULTURE FORMAT.....



	NO.OF STUDENTS
NEEDS IMPROVISATION	47.66%
HEALTHY	43%
UNHEALTHY	9.33%

This graph showing that there is needed to be change in the format of education of coaching institutes in the city. There are 47.66% of students who needs improvisation in the coaching culture format. According to students education system should not be on the basis of marks system but on the basis of knowledge and caliber, as according to interview conducted they told that there are students who mug up the things and score in the exams or series tests but they don't have enough knowledge about the things we study in the coachings. So, there is enormous need of change in the coaching culture format.

IF I DON'T CLEAR ANY OF THE ACADEMIC COURSES.....LIFE WOULD BE



	NO.OF STUDENTS
GOOD FOR NOTHING	58.33%
FILL OF OTHER OPPORTUNITIES	41.66%

The pie chart is depicting the students life would be nothing if they didn't clear from any of the academic courses. Maximum of the students feel that there life would be nothing if they didn't clear any of the academic courses the students are so depressed and they don't think they have many other opportunities. Parents and coaching institutes and peer group imposes so much of pressure on them they totally made these courses their life.

#### **4.5 Factors affecting high suicide risk**

##### **Some of these are:**

- Being male: as men are likely to go for dangerous methods of suicide which are often lethal.
- Being single or separated or divorced.
- Bereavement and loss: death of a close relative or loss of a valued object.
- Financial burden: this includes debts, bankruptcy or job loss.
- Homelessness and incarceration: suicide rates are high among the destitute and prison population.
- Previous history of suicide attempt.
- A history of repeated deliberate self -harm: DSH tends to have a cumulative effect and increase the risk of completed suicide.
- Presence of mental illnesses: this significantly increases the suicide risk. In particular, depression and schizophrenia are associated with a high suicide risk.
- Drug and alcohol: drinking and taking drugs are definite risk factors suicide, as they cause a sense of disinhibition and loss of self control, which in turn increases impulsivity and irresponsible actions, be it drunk-driving, homicide, sexual assaults or suicide.
- Presence of medical illnesses: especially those that are chronic, painful, or end-stage conditions such as AIDS OR CANCER
- A family history of suicide: studies have shown that having a first-degree relative who has committed suicide increases the risk of suicide in the individual.

##### **Conclusions:**

Suicide is the word that is very horrifying for the many people. Results indicate that many aspirants are suffering from anxiety, stress and depression in such coaching institutes. The results and discussion indicates that education system today is a bit complicated that is it tests our memory power all the time and needs an improvement. It concludes that education system today's is full of reservation and the students who are talented they lay behind due to this there is so much of pressure on the students. Maximum of the students feel education system killing us day by day and this leads to various suicidal cases in the city. The results depicts that due to stringent schedule of classes and pressure from family, relatives and friends the students are in depression, mental disorder, grief and suicide also among the students. In these coaching institutes the students' caliber is measured according to the marks and scores

in the competitive exams their knowledge is not important.

These coaching institutes are open just for gaining money these are like business factory or a money minting machine they are not able to handle the today's youth. There are students who say that my parents sometimes force me to do Engineering or medical it feels like suffocated. Education is nothing but they made a business now a days if you have money you will get better education if you don't have you will not, Like the Pie charts indicates that students have Family Financial pressure also, as their parents have lots and lots of expectations as they have invested a lot on them. Due to this tough competition there is rise in suicidal cases in the city day by day.

There are students who feel isolated in this crowdie world also; they feel like to end themselves and for them suicide is the only option. There are students who say if I did not able to complete these academic courses than my life will be good for nothing, as my parents are having a lot of expectations from me. The fear factor is the reason why students suffer from anxiety, depression and the following consequences. And the fear not only comes from the school but also from parents, who go to extreme levels to push their children into getting better grades. The best time of the life that students are supposed to enjoy and cherish is the time they are pushed to extreme levels which can be overwhelming for many.

There is one more reason that in these coaching institutes teachers are biased and focus on just the aspirants, brilliant students and the average students feels like isolated and feels lonely, this also one of the reason for the students suicide and depression in the city. Each coaching class usually has 200 to 250 students with little personal attention being paid to anyone. Sundays are also not free as internal tests are scheduled on Sundays. The marks obtained in these tests form the basis to rank students within the institute.

"A system of Discriminatory teaching is followed in almost all top coaching centres in Kota, which focus on potential high performers who can bag top positions in JEE and NEET. The pressure on slow coping low performing students is obvious".

Alarmed by these deaths, the Rajasthan administration recently issued guidelines to Kota coaching centres asking them to ensure not more than 60 students in a class, mandating the centres to return the fees in case a student is wanted to opt out and ordering them to institutionalize a system of sending SMS alerts to parents in case a student absented from a class for more than few days and without medical grounds. The present practice in Kota is to take yearly fee at the time of admission with no pledge to return the dues in case a student wants to exit.

There are lots of changes that is needed otherwise the coming generation will not be able to handle this pressure and the cut throat competition.

I wish to convey that there are always two sides of coins. I wish to say that Kota being a hub of industrialization and coaching in the country needs

to be more careful and concerned about the sensitive Youth they are handling today.

There are some educational coaching Institutes in the city who are handling the students very well as they are providing Recreational facilities, Yoga classes, Counselors and they are handling children very well but sad enough there are some they are working like money minting machine, Treating the Youth of the nation's a robot.

**Suggestions:** Students in the Kota city are so horrified and under pressure that there quotes are like the following: "I fear I will not be able to achieve a significance grades this time as well in my entrance, and this will be my last chance as my father has warned" , Anonymous student

With increasing competition in academic and professional fields, pressure on young student is also increasing. Everyone is striving for the best place and if you have to survive in the race and reach a commonplace sustainability, you have to be better than the great.

Your scores in your entrance exams will decide your rank and eventually where you will get placed. Gradually organizations are shrinking from doing any form of career counseling in the colleges and it is yet another form of pressure.

Everybody is an Engineer today; a software worker so you have to score really exceptional even for a moderate professional position. There is a lot of expectation on these tender minds; of their parents; of their teachers and of society. Choices and options are getting limited day by day and huge masses are thronging in one or two particular kinds of career scopes. Often this is leading to disillusionment and despair. Students are following a channel blindly not knowing what they want to do.

How can we save the students?

- Motivation
- Self confidence
- Counseling
- Teenage
- Suicide Prevention Quotes
- DBT (Dialectical behavior therapy)

When these young people fail to reach the expected results, or even if they are afraid that they will score lesser than what they have pre-assessed, they lose hope and this is the cause of suicide attempt among fresh students especially in medical and engineering sectors. The trend is gradually spreading like an epidemic.

Suicidal thoughts can be terrifying, isolating, all-consuming, confusing or exhausting due to loss, grief, depression, anxiety, tension and other impressionable factors.

They can be identified with weight loss, change in appetite, fatigue, disillusionment, disconnect with physical body, lack of motivation and denial

of health.

You can keep yourself away from such thoughts by focusing on the following:

- Stay away from drugs and alcohol.
- View something which you like; a good picture or family album; or maybe you can have something which you enjoy like chocolate or smell a good perfume or just look outside to see the blessed nature.
- Keep yourself motivated with healthy diet and lifestyle, good books and productive work (beyond profession and academics).
- Write down your thoughts.
- Talk to people.

Apart from the general ideas, healthy counseling can really help in removing the suicidal thoughts.

Suicidal thoughts are most common in addressed using a relatively new form of counseling known as DBT- dialectical behavior therapy. DBT is a specially adapted form of cognitive behavioral therapy (CBT). It applies two different techniques:

- acceptance techniques
- Change techniques.

Acceptance techniques focus on making sense of who you are and what you do. It aims to show you that no matter how destructive your behavior is, it still makes sense - it is still a valid coping mechanism.

Change techniques focus on ways you can change your behavior and learn more effective, less destructive ways of coping with your distress. You will learn to replace destructive behaviors with behaviors that allow you to move on to a better place in life.

- These sessions may last a couple of hours per week depending on the criticality of your situation. Counseling can help a person regain self-confidence and generally here a patient learns how to deal with crisis periods rather than succumbing to distress and fate.
- You can free yourself from the panic and tension without using medicines or any lingering drug. Counseling helps you settle with your situation and identify your true potentials which help you accept yourself and gradually you learn to be better from what you are.

These kinds of counseling provisions at educational institutions and academic organizations can actually foster better mental health of youngsters and consequentially develop better results in group.

- Youth is the future of a nation and they are really precious and valuable so instead of forcing them into unrealistic expectations, we should try and recover their productive minds.
- 56 students (studying in different institutes in the Kota) committing suicide in a short span of five years, reveals that all is not well with the atmosphere and curriculum of Kota Coaching Classes.
- Most of the suicides are due to fear of failure and the burden of

expectations from family. It is, therefore, for the parents not to imposing their choices and burdens their children with their own ambitious dreams. When it comes to the career, parents should rather let the child decide as to what he or she want to become or is interested in. Moreover the parents should rather make their children psychologically stronger and keep telling their wards that whatever be the results of the exams (success or failure), they are always with them and will support them under any circumstances.

- Parents and Tutors of the Coaching Institutes should keep evaluating the Psychology of the student and ensure that the wards are not undergoing any pressure of the studies and also not hiding any kind of depression. Outwardly, a student may look happy and cheerful but may hide or conceal his true feelings just to keep their parents happy.

- Parents should keep a watch on the activities of the especially when they have not fared well in the exam. They should take care that the child is not scolded for not scoring good and left alone for a longer period. Parents should rather keep consoling and reminding them of the hard work done by the child and that they are satisfied and happy about the results.

- Coaching Institutes should also come forward and keep counseling the weaker students, especially those suffering from depression. They should also be provided required assistance.

- Coaching Institutions must conduct the screening test for students seeking admission to coaching institutes and to give parents the true feedback and assessment of their ward' chances of cracking the entrance exams.

- Parents should know the psychology of their wards that they are not keeping things to themselves but rather express and share their true feelings with parents.

- Coaching Institutes should not clutter the classroom by accommodating too many students in a small classroom. They should also design the curriculum of studies in such a manner that it does not become monotonous and creates boredom.

- Most of the Coaching Institutions are also providing the boarding and lodging facilities to their students. They need to ensure that the rooms are spacious enough and lively with proper ventilation etc so that their place of stay itself does not cause any kind of depression.

- Local Authorities, granting the permission to run coaching classes should also keep inspecting these coaching institutions to ensure that the laid down norms are strictly followed by these institutions. The licenses of the errant institutions should immediately be cancelled.

#### **References :**

1. A Reality Check on State of Mental Health Care in India <https://www.mapsofindia.com/my-india/health/a-reality-check-on-state-of-mental-health-in-india>



2. Ashni Dhaor, IIT aspirant who killed herself recalled as 'bright cheerful' Hindustan Times, Apr 29, 2016.
3. Carson C. Robert, et.al (13th Edition) "What is Stress'. Abnormal Psychology, Published by Dorling Kindersley (India) Pvt., Licenses of Pearson Education in south Asia, pp 144.
4. Coaching Classes serve as a parallel education system, (2015, March 03). Retrieved June 9, 2017, from
5. Cook, R. (2017, July 24) The stress of coaching and the pressure to win, sometimes can be life or death. Retrieved July 24, 2017, from <http://www.post-gazette.com/sports/ron-cook/2017/07/24/Ron-Cook-coaches-health-pressure-Terry-Francoma-Bruce-Bochy-Mike-Tomlin-Skip-Prosser-Gary>
6. European Academic Research "Clash of Competitions: A study on coaching classes of Kota"
7. European Academic Research "Juvenile Delinquency among coaching Students: A case study of Kota city"
8. Extract from a report by Union Minister for HRD, Mr. Kapil Sibal, Times of India, (06/11/2012) - Retrieved 29/09/2014 from [protectinnocentmovement blog- 03/2012](http://protectinnocentmovement.blogspot-03/2012).
9. Gosh. A. (2012, June 7). The New Coaching class in Kota. Retrieved January 18, 2017, from <http://www.Forbesindia.com/printcontent/33050>
10. Girls Kills herself after cracking IIT-JEE, didn't want to be an Engineer <https://www.hindustantimes.com/india/girl-kills-herself-after-cracking-jee-didn-t-want-to-be-an-engineer/story-AICv4liXGZTEhZVIEnd4qK.html>
11. Gould, M., Greenberg, T., Vetting, D. and Shaff, D. (2003). Youth suicide risk and preventive interventions. Review of the past 10 years. Journal of the American Academy of Child and Adolescent Psychiatry, 42(4), 386-405
12. George, M.P. and Mampilly, S.R., (2012). A model for student mentoring in Business Schools. International Journal of Mentoring and Coaching in Education, Vol. 1, 2.
13. IIT Kanpur students commits suicide in hostel room [http://m.hindustantimes.com/education/iit-kanpur-student-commits-suicide-in-hostel-room/story-bjHMITavfusUT0NcMv8l3l\\_amp.html](http://m.hindustantimes.com/education/iit-kanpur-student-commits-suicide-in-hostel-room/story-bjHMITavfusUT0NcMv8l3l_amp.html)
14. Kota wikimapia <https://www.google.co.in/search?q=kota+wikimapia&rlz=1C1GCEA-enIN751IN751&oeq=kota-wiki&aqs=chrome469l57j0l5.11957j0j7&sourceid=chrome&ie=UTF-8>
15. Kennedy. J. (2009). A Definition of Coaching. Unpublished doctoral dissertation, Potsdam Germany.
16. Kota suicides: In this coaching hotspot, stress snuffs our lives/education higher-studies/Hindustan times <https://www.hindustantimes.com/education/kota-suicides-in-this-coaching-hotspot-stress-snuffs-out-lives/story-prJar3TIYa4RHMkxm0ZmlK.html>
17. National Crime Records Bureau- NCRB, (2012) - Retrieved 29-09-2014.
18. NDTV Article, "15 Commit Suicide every hour in India", (2012) - Retrieved 29/09/2014 from [www.ndtv.com/article/india/15](http://www.ndtv.com/article/india/15)
19. Rakesh Goswami, "Shut Coaching centres, they suck"; Kota students' suicide letter" Hindustan Times, Apr 30, 2016
20. Singhal, S. (2004). Stress in Education. New Delhi: Rawat Publications
21. Sharma, J & Sidhu, R. (2012). Sources of Stress among students preparing in

- Coaching Institutes for admission to Professional Courses'. Journal of Psychology, Vol 2(1), 21-24.
22. Student-commits-suicide-every hour- in India [www.indiaspend.com/special-reports/](http://www.indiaspend.com/special-reports/)
  23. Student commits suicide in Kota [www.hindustantimes.com/Jaipur/another-coaching](http://www.hindustantimes.com/Jaipur/another-coaching)
  24. Suicides in IIT's and IIT-JEE coaching schools <http://www.iitsuicides.blogspot.com>
  25. Suicides and the State of Mental Health Care in India <https://www.mapsofindia.com/my-india/health/suicides-the-state-of-mental-health-care-in-india>
  26. Suicides in India, The Registrar General of India, Government of India, (2012) - Retrieved 29-09-2014, from <http://ncrb.nic.in/CD-ADSI-2012/Suicides-11>
  27. The IJMAS JOURNAL Internal Journal of Management and applied sciences (IJMAS) - Rising Cases of Suicides by Students of Kota Coaching Institute.
  28. To stop suicides Kota to have 'Masti Ki Pathshala' moments regularly- Times of India <https://timesofindia.indiatimes.com/india/To-stop-suicides-Kota-to-have-masti-ki-pathshala-moments-regularly/articleshow/50361132.cms>
  29. The effects of media reports of suicides by well-known figures between 1989 and 2010 in Japan <https://academic.oup.com/ije/article/43/2/623/2901741>

## Mobile Learning: Digital Education Cheapest Tool

\* Arun kumar

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**Abstract-** Education and training is the process by which the wisdom, knowledge and skills of one generation are passed on to the next. With the passage of time, the education system all over the world has gone through a dramatic change. The traditional education system no longer fulfills the modern day complex needs where everything is dynamic and evolving at a very fast pace. Today there are two forms of education and training: conventional education and distance education. Mobile Learning or M-learning is the cheapest tool of digital education and offers modern way to support learning process through mobile devices such as tablet computer and handheld computers, smart-phones, mobile phones and MP3 players. This review paper focus issue, benefits, Challenges, and comparative study between E-Learning and M-Learning.

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**Keywords:** Education, Learning, E-Learning, M-Learning.

**Introduction:** Indian economic growth from past two decades has led to an aspirational middle income society, which in turn has increased the demand for quality delivery and facilities at all levels of education. The term M-Learning or Mobile Learning, has different meanings for different communities that refer to a subset of E-Learning, that focuses on learning across contexts and learning with mobile devices. Mobile Learning is known by different names M-Learning, U-Learning, anywhere Learning and handheld learning. Mobile learning is considered to be the ability to use mobile devices to support teaching and learning.

M-Learning focuses on the mobility of the learner, interacting with portable technologies and learning that focus on how society and its institutions can accommodate and support an increasingly mobile population. This is because mobile devices have features and functionality for supporting learners. For example, podcasts of lectures can be made available for downloading. Learners are to expect to engage with these learning resources whilst away from the traditional learning spaces. Over the past ten years mobile learning has grown from a minor research interest to a set of significant project in schools, administrative offices, workplaces, museums, cities, railway stations and rural areas around the world.

**Trends:** The World Wide Web (www) is most successful educational tool to

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have appeared in a long time. It combine and integrates text, audio and video with interaction amongst users. It can be used on a global scale. While largely an asynchronous medium, it can be used also for synchronous events. Mobile internet growth is eight times greater than PC-based growth; and Mobile social networking sites are more popular, mobile Facebook, Whatsaap has million user a day. Mobile learning is more popular due to-

- Student userfriendliness
- Didactic effectiveness
- Technical feasibility
- Low cast.

Basic mobile phone features are: outgoing and incoming calls, Sent box and inbox text message, and basic office tools eg. Calculator, torch, Calender. Smartphone features include; Bluetooth, Camera, Video player, e-book reader games, Whatsaap, recording audio, GPC/location, Web browser to connect to the internet.

Mobile Learning can be used anywhere/anytime: in a classroom, at the dining room table, on a bus, administrative offices, railway stations etc. Portability is not as important as the ability of the learner to connect, communicate, collaborate and create using tools that are readily at hand. We have got them working as part of the M-Learning project. Research and Development institution work on last two years and many learners have already been trying out these approach and contributing to their development.

#### **Comparative Study Between M-Learning and L-Learning:**

E-Learning has come to define any dissemination of educational knowledge over the Internet. This makes E-Learning a subset of technology-based training. It also incorporate a number of learning activities conducted on the internet, of which M-Learning is one part. M-Learning is natural evolution of E-Learning, which complete a missing component such as the wireless feature, or as a new stage of distance and E-Learning. M-Learning occupying a subspace within the E-Learning space, which is subpart of the Digital Education.

E-Learning can be self-paced known as synchronous or asynchronous learning, and tethered. While M-Learning is often self-paced, un-tethered.

**Importance of M-Learning:** The importance of M-Learning are as follows-

- Bring new technology into the classroom.
- Devices used are more light weight and books and PCs.
- Blended learning approach.
- Useful add-on tool for students with special needs.
- Low cost.
- Decreases in training costs.
- Improving levels of literacy.

**Challenges of M-Learning:** Following challenges of M-Learning are-

- Connectivity and battery life.

- Screen size and keyboard size.
- Number of file/asset formats supported by a specific device.
- Limited memory

In addition to these challenges, there are some other barriers to M-Learning include the high costs associated with equipment, connectivity, maintenance, technical support, negative social attitudes that see mobile phones as disruptive device that user primarily to play games (blue whale), chat with friends and potentially engage in inappropriate behaviours such as cyber-bullying and cheating.

### **Discussion:**

Mobile learning is emerging as one of the solutions to the challenges faced by education. With a variety of tools and resources always available, mobile learning provides increased options for the personalization of learning. Mobile learning in classrooms often has students working interdependently, in groups, or individually to solve problems, to work on projects, to meet individual needs, and to allow for student voice and choice. With access to so much content anytime and anywhere, there are plenty of opportunities for formal and informal learning, both inside and outside the classroom. Study showed that notebooks, mobile Tablets, iPod touch, and iPads are very popular devices for mobile learning because of their cost and availability of apps. They are used for collecting students' responses (clickers), reading electronic books and websites, recording reflection, documenting field trips, collecting and analyzing data, and much more. One of the causes of acceptance mobile learning is that uses devices:

- which citizens are used to carrying everywhere with them,
- which they regard as friendly and personal devices,
- which are cheap and easy to use,
- which they use constantly in all walks of life and in a variety of different settings, except education."

But, the future of mobile learning depends largely on the level of social acceptance it receives. On the other hand, Users in developing countries have the same need for M-Learning to be mobile, accessible and affordable, as those in developed countries do. The very significance of M-Learning is its ability to make learning mobile, away from the classroom or workplace.

The first of solution is the use of mobile learning for academic administration on mobile phones. If it could be established that mobile learning was to become the established method for universities and colleges to communicate urgent information to their student body, a very large revenue stream would be opened up. It can be taken as a given that all students in all universities and colleges possess a mobile phone which they consult constantly, All students enrolled in higher and further education institutions today have frequent needs for information from their institutions about timetable changes, assessment deadlines, feedback from tutors and other urgent administrative

details. The use of mobile telephony is a much more efficient and quicker means of communication than postal contact or email.

### **Conclusion:**

The advent of mobile phones presents a great opportunity and offers a timely challenge to re-define and transform our educational paradigms. As wine fans claim “we cannot pour fresh wine in old bottles”, likewise, mobile learning too requires a new philosophical framework and new educational paradigms if it is to flourish. Only then will it become ubiquitous.

ICT is a powerful vehicle for enhancing learning, and mobile devices form an essential part of that vehicle. If current ICT strategies for education begin to include mobile devices along with digital learning materials, support for teachers, and guidelines on best practices, mobile learning will soon become an important part of education.

### **References :**

1. H.Chet, J.Carlton, D,Matthew, M.G.Thomas (2011), Use of mobile Technology for Information Collection and Dissemination, Data & Analysis Centre for software.
2. M.L. Crescente, D.Lee (2011), Critical issues of M-Learning design models, adoption processes and future trends, Journal of Chinese Institute of Industrial Engineers, 28(2),111.
3. M.Yousef, Z. Hamideh, 2013, Mobile Learning for Education: Benefits and Challenges, International Journal of Computational Engineering Research, 3(6), 93,
4. R. Douch, C.S. Savill, G. Parker, J. Attewell, (2010), Work based and vocational mobile Learning: Making IT work, London.
5. T. Elias (2011), Universal Instructional Design Principles for Mobile Learning, International Review of Research in Open and Distance Learning, 12(2), 143
6. D. Keegan (2005), The Incorporation of Mobile Learning into Mainstream Education and Training, Proceeding of M. Learn 2005, 4<sup>th</sup> World Conference on M Learning, Cape Town, South Africa.
7. R.Ling (2004), The Mobile Connection the cell phone's impact on society, San Francisco, CA, Morgan Kaufmann Publishers.
8. Mobile Learning Community, Mobile Learning History (2010).
9. A.H. Mostakhdemin, J. Tuimala (2005), Mobile Learning Framework, Proceedings IADIS International Conference Mobile Learning Malta, 203.
10. S.K. Sharma, F.L.Kitchens (2004), Web Services Architecture for M- Learning, Electronic Journal on E- Learning, 2(1), 203.
11. M.Sharpley (2000), The design of personal mobile technologies for life long Learning, Computer and Education, 34(3/4), 177.
12. Rajesh (2003), A study of the problems associated with ICT Adaptability in Developing Countries in the context of Distance Education, Turkish Online Journal of Distance Education, 4(2).

## Is there Any Difference between Government School Teachers and Non Government School Teachers in the level of Adjustment?

\* Hemangi V. Teraiya

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**Abstract-** Adjustment has been defined as 'The process by which the individual attempts to maintain a level of physiological and psychological equilibrium' (Mouly 1967). It can also be describes as an attempt on the part of a teacher to strike harmonious relationship between himself and his environment. It is, thus, a form of interaction between the teacher and the environment in which he lives. Promoting adjustment on the part of the teacher simply means developing a teacher's capacity for adjusting to the various needs related to the teaching profession. In the present study researcher tries to find out the adjustment levels of the government and non government schools teachers and found that though the government and non government school teacher are at the same level of adjustment.

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### Key Words: Teachers, Adjustment

**Introduction:** It is universally agreed upon by all persons who are concerned with social welfare and progress of a country that the teacher plays a crucial role in building of a nation and truly he is called nation builder. He is charged with an important responsibility of modifying and shaping the personality of children in accordance with national objectives of life. In the present study researcher tries to find out and compare the adjustment levels of the government and non government schools teachers

**Statement of the Problem:** The statement of the problem was, "Is there Any Difference between Government School Teachers and Non Government School Teachers in the level of Adjustment?"

**Objectives:** The objective of the study was, to compare the adjustment level of government school teachers and no government school teachers.

**Hypothesis:** The hypothesis of the study was, there is no significant difference between Government school teachers and Non Government school teachers in the level of Adjustment.

### Variables:

1. Independent Variable: Teachers (Level 1: Government School Teacher,  
Level 2: Non Government School Teacher)

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2. Dependent Variable: Score of Adjustment Inventory
3. Control Variable: Academic Year: 2017-18  
Area: Rajkot City  
Standard: Primary Section

**Scope of research:** The scope of research of the present study was Education and psychology.

**Type of research:** The present study applied the theoretical knowledge in to practice and therefore it was an applied research. The data collected in the present research was in quantitative form. The data analysis was also done using the statistical techniques and procedure. Thus the present research was a quantitative research according to its implementation form.

**Research Method:** After reviewing various related studies, objective of the study and the nature of the problem the researcher preferred the descriptive survey for the present study.

**Population:** In the present study, primary school teachers of Rajkot city were selected as a population.

**Sample Selection:**

For accomplish the study; randomly sampling technique was used to select the sample of 100 teachers (50 from government school and 50 from non government school) from Rajkot city. Some schools were selected at random from the Rajkot city. Then at second stage some teachers were selected at random from those schools and they were given the tool to be completely filled.

**Research Tool:** In the present study researcher has been used Mangal Teacher Adjustment Inventory developed by S.K.Mangal.

**Statistical Analysis:** Descriptive statistic, mean, standard deviation and independent t-test was used as a statistical technique.

**Collection of Data:** The necessary data was collected by administering the tests for the chosen components. After taken test whatever the data get was noted by researcher.

**Analysis and Interpretation:**

**Null Hypothesis:** There is no significant difference between Government school teachers and Non Government school teachers in the level of Adjustment.

Teachers	N	Mean	S.D.	't' Value	Level of Sig.
Government School	50	46.66	9.36	0.03	Not Significant
Non Government School	50	46.70	8.40		

It is evident in the table that the calculated value (0.03) is less than the table value (1.98). And we can say with 95 per cent confidence (0.05 level of significance) that the total adjustment level of non government school teachers does not differ significantly from government school teachers. Null hypothesis is not rejected.



**Conclusion:** Total adjustment level of non government school teachers does not differ significantly from government school teachers.

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**References :**

1. Buch, M.B., Ed. (1987). Third Survey of Research in Education, New Delhi: NCERT.
2. Chauhan, S.S. (2002). Advanced Educational Psychology, New Delhi: Vikas Publishing House.
3. Crow, L.D. and Alice Crow (1956). Understanding our behavior, New York: Alfred A. Knoff.
4. Dave, P.N. (1987). "Teaching and Teacher Behaviour: A Trend Report" in Third survey of Research in Education. Ed. M.B. Buch, New Delhi: NCERT.
5. Mangal, S.K. (2010). Advanced Education Psychology, New Delhi: PHI

## **Impact of Media on the behavioural changes of students in the Higher Educational institutions**

\* Bandana Sarma

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**Abstract-** Media comprising news papers i.e. print media, radio, television and cinema, like any strong catalyst or stimuli are bound to effect on its readers, listeners and viewers. But, without doubt, when one talks of behavioural changes due to the impact of media, one is pointing invariably at television. The effect of media is to be examined in the context of other prominent socio-economic changes. Globalization and liberalization made a radical transformation from traditional inward-looking economy to open economy. Media was responsive enough to reflect the market driven character of the global economy. Technologically, the last two decades has witnessed tremendous changes in terms of communication and application of technology in day-today life. Internet, mobile and satellite phones, multi-media services available at fast affordable price, has democratized in the true sense, the use of communication technology. The rural-urban and rich-poor gap witnessed previously in matters of educational and employment opportunities has diminished greatly as the remotest corner of the earth today has been able to enjoy the information explosion. The young generation open to this amazing world of information has taken the unprecedented lead in shaping public opinion on almost all matters. This media and techno-savvy generation outsmarts their senior brethren shy of using even computers. Culturally, we are witness to the death of many myths. Premature and premarital sex, live-in relationship, Gay marriages, artificial sex change, cyber crime etc. no longer shock anybody. Size-zero figure, plastic surgery are catching up with the students Glorification.

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**Keywords:** Impact, Media, Behavioural Changes, Globalization, liberalization

**Introduction:** Media comprising news papers i.e. print media, radio, television and cinema, like any strong catalyst or stimuli are bound to effect on its readers, listeners and viewers. But without doubt, when one talks of behavioural changes due to the impact of media, one is pointing invariably at television. The effect of media is to be examined in the context of other prominent socio-economic changes. Globalization and liberalization made a radical transformation from traditional inward- looking economy to open economy. Media was responsive enough to reflect the market driven character of the

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global economy. Technologically, the last two decades has witnessed tremendous changes in terms of communication and application of technology, in day-to-day life. Internet, mobile and satellite phones, multimedia services available at fast affordable price, has democratized in the true sense, the use of communication technology. The rural-urban and rich-poor gap witnessed previously in matter of educational and employment opportunities has diminished greatly as the remotest corner of the earth today has been able to enjoy the information explosion. The young generation open to this amazing world of information has taken the unprecedented lead in shaping public opinion on almost all matters. This media and techno-savvy generation outsmarts their senior brethren shy of using even computers.

This study aims to discuss some hypothetical assumptions. These are:

1. The Roles multiply When Media Change
2. Public Spheres have merged due to impact of media
3. There is Blurring of Public and Private Behaviors
4. New Group Identities have emerged.
5. New ways of Becoming are visible.
6. Questioning Authority is the norm.
7. The Merging of Masculinity and femininity.
8. The Blurring of Childhood and Adulthood has been a reality.
9. Demystifying the Political Hero to Ones Level.

**With these hypotheses, the following theories can be linked**

**Theoretical Perspectives: Media as an influence on Attitudes and Behaviours:** The power of mass media to influence behavior has been supported through a number of different psychosocial theories, hypotheses, and models. Although there is considerable variation in theoretical assumptions by which media might affect adolescents' sexual attitudes and behaviors, most consider that sexually related message content and behavior act as stimuli to change consumer psychological, physiologic, and behavioral function.

**Social-Learning Theory:** Bandura's social-learning theory, one of the most prominent of these theoretical mechanisms. Provides ample evidence that even when children and adults have not actually performed a behavior, they can learn by imitation. Bandura identifies three main processes involved in learning: direct experience, indirect or vicarious experience from observing others (modeling), and the storing and processing of complex information through cognitive operations. This theory suggests that behaviours are learnt and that they are influenced by social context: Television is seen as an increasingly influential agent of socialization that produces its effects through children's propensity to learn by imitation.

**Disinhibition Theory:** Disinhibition Theory posits that existing behavioural tendencies of children and others are inhibited by experience. Continued exposure to television (TV), however, disinhibits viewers, making them more accepting of the behavior.

**Priming Theory:**

Research has shown that exposure to an event (ie, sexual stereotypes) from the mass media activates other similar ideas for a short time afterward. These thoughts, In turn, can activate other semantically related concepts and make them more accessible.

**Cultivation Theory:**

Cultivation theory posits that heavy exposure to mass media creates and cultivates attitudes more consistent with a media-directed version of reality than with reality itself. Explicit portrayals and messages might affect the behavior of young person's over time by enabling them to acquire new attitudes and behaviors or by changing the likelihood that they will perform new or previously learned responses.

**Media Practice Model:**

This model was developed to explain media use in a comprehensive and contextual framework and highlights the connections between adolescents' identities and media selection, interaction, and application: This model assumes that youth choose media and interact with it based on who they are or who they want to be at the moment. Theoretical research is borne out by communications-related survey data. Advertisers recognize that the content of their messages will have an effect on consumer purchasing behavior.

**Third-Person Effect Hypothesis:**

The third-person effect hypothesis states that people tend to perceive mass media messages to have a greater impact on others attitudes and behaviors than on themselves. This phenomenon may be exacerbated for adolescents and may lead to underreporting of decision-making factors.

**Super-Peer Theory:**

This theory posits that the media can represent a potent source of information for teens as to what is normative behavior and may indeed exceed the influence of an adolescent's more traditional peer group. The effect of exposure to attitudes and behaviors portrayed in mass media may be compounded by the glamour typically associated with those appearing in it (both the characters and the actors playing them). Moreover, TV programming targeted to youth takes advantage of the attraction of children and teens to characters they perceive to be 2 or 3 years older than they themselves are- "Peers" with whom they typically cannot socialize but whom they long to be like. Such characters, although older than the child's peer group, provide force for the child's "aspirational" behavior. In short, youngsters model themselves after those who they want to be not those who reflect who and what they currently are.

**Methodology of the Study:**

The study relies on some research findings on the impact of media on the behavior of students and youth. Besides, it will also analyse in the same context the findings of the interview of some select group of students. A

questionnaire was provided to them to know their reactions on some vital aspects.

### **Media Influence on Other Health-Related Behaviors:**

Although little is known about the effect of mass media on adolescent sexual behaviors, much more is known about its effects on other health-related behaviors. In particular, violence in mass media has attracted a great deal of ongoing attention. The effects of a child or adolescent's media diet on their future risk of eating disorders and alcohol and tobacco use have also been subjects for study.

### **Aggressive Behaviour and violence:**

Numerous studies have investigated the association between media violence and aggression, with many focusing on children and adolescents. A variety of study designs have been used to understand the media-aggression relationship, including laboratory, correlational, longitudinal, and ecological designs.

### **Eating Disorders:**

Researchers have showed that children who watch more TV experience a greater prevalence of obesity or super obesity than children watching less TV. Other research has shown that among 374 girls (mean: 12 years old), over a 16 month period those who reported increased eating-disorder symptomatology had significantly increased their exposure to fashion magazines but decreased their number of hours of TV viewing, whereas those with decreased symptomatology had significantly decreased their exposure to both TV and fashion magazines. Trying to look like females portrayed on TV, in movies, or in magazines was also significantly predictive of preadolescent and adolescent girls' onset of eating-disorder-related behavior. A study comparing 2 samples of Fijian schoolgirls before and after the introduction of TV to the region is suggestive: indicators of disordered eating were significantly more prevalent after prolonged exposure to TV. Study participants reported a desire to lose weight or to reshape their body to become more like Western TV characters.

### **Tobacco and Alcohol Use:**

Several studies have explored the impact of advertising on adolescents. Many have shown advertising to be very effective in increasing youngsters' awareness of and emotional responses to products (recognition of brands, desire to own the products advertised). Cigarette advertising seems to increase teenagers' risk of smoking by glamorizing smoking and smokers, and children who are able to recall ads related to tobacco are more likely to view smoking favorably and to become smokers.

Alcoholic drinks are the most common beverages portrayed on TV. It has been shown that exposure to alcohol advertising and TV programming is associated with positive beliefs about alcohol consumption.

**The impact of the internet:**

The Internet has far reaching impact on the young people to our society. It will discuss the advantages and disadvantages of the Internet and its social implications. Internet crimes such as the manipulation of computer records, Spamming where this is outlawed completely or where regulations controlling it are violated, Deliberate circumvention of computer security systems, unauthorized access to or modification of programs (hacking) and data, Industrial espionage by means of access to or theft of computer materials, Identity theft where this is accomplished by use of fraudulent computer transactions, Writing or spreading computer viruses or worms are well known cyber crimes with which a section of the youth are connected. In the general sense, an internet is a computer network that connects several networks. As a proper noun, the Internet is the publicly available internationally interconnected system of computers. It has opened many new vistas of knowledge and information to the young generation. However, as cited above, research studies have revealed that many young people indulge in wrong use of the Internet.

**Impact of the Media on Adolescent Sexual Attitudes and Behaviours:**

One largely unexplored factor that may contribute to adolescents' sexual activity is their exposure to mass media.

Significant studies have been performed an extensive, systematic review of the relevant biomedical and social science literature and other sources on the sexual content of various mass media, the exposure of adolescents to that media, the effects of that exposure on the adolescents' sexual attitudes and behaviors, and ways to mitigate those effects. One potential but largely unexplored factor that may contribute to sexual activity among adolescents is exposure to sexual content in the mass media. The average American youth spends one third of each day exposed to media, and the majority of that exposure occurs outside of parental oversight.

**Findings of Interview:** A group of 55 students mostly from higher classes were interviewed with the help of one structured questionnaire to know their reactions on the following aspects:

1. Impact of media on drug-alcohol addiction.
2. Impact of consumerism marketed by media and related behavioural and life-style changes of youth
3. Impact of media and loss of reading habits
4. East sports like IPL and displayed pompousness and glamour marketed by media and change of traditional values.
5. Demystification of the concept of peer
6. Media and information explosion
7. Use of multi-media for wrongful purposes
8. The formation of a global society and the impact of media
9. Loss of creativity and originality
10. Transparency in public matters for the impact

11. Practices like live-in relations, Gay marriages, single parent etc. and the impact of media.

**The response of the student can be analysed in the following way :**

- Percentage of students believing that T.V. viewing has direct relation to drug, alcohol addiction –65%
- Percentage of students believing that youth are highly attracted by fast cars, fast food, fast relationship, fast money etc. due to the portrayal of such values by media-76%
- Percentage of students who think that the reading habit among today's youth has degenerated due to high exposure to media – 55%
- Percentage of students believing who think that modern youth's hankering after glamour is explained by the impact of media on their life -60%
- Percentage of students who think that they are benefitted by the knowledge explosion engineered by media- 82%
- Percentage of students who confess that they have also access to wrongful sites of media like pornography-25%
- Percentage of students who believe that media has helped to create a true global society by breaking differences and boundaries-85%
- Percentage of students who believe that media has helped ruin many institutions and established new values-66%

The theoretical analysis and the findings of the interview suggest that the rising self confidence of modern youth which sometime borders on aggressiveness is partly explained by the impact of media on their life. The access to knowledge has destroyed creativity and so the urge to know. Peer worship has gone as blurring of childhood and adulthood has occurred due to media impact. Role reversal between the female and male may not occur but the female has definitely taken over most of the traditional roles of male work force.

**Conclusion:** From the above analysis it is seen that the scenario is not so dismal. Media has both positive and negative impact on the behavior of students. It is characteristic of every natural phenomenon that the opposites exist and balance each other

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#### **References :**

1. Andal Narayanan: The impact of Tv on Viewer, Bomboy, Somaiya, 1987
2. Nandini Prasad : Vision unveiled, New Delhi, Friedrich Ebert Stiftung, 1994
3. Michael Traben (Ed): Globalization, Mass Media and Indian Cultural Values, New Delhi ;ISPCK 2003
4. Ull Carisson and Cecilia Feleitzen (Eds) : Children and Media Violence, Paris, UNESCO, 1998.
5. Internet etc.

## **A comparative study of the Government and private primary education system with special reference to Nagaon city**

**\* Jyotisma Mahanta**

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**Abstract-** Education is the process of facilitating learning or the acquisition of knowledge, skills, values, beliefs, habitsetc . Education exists in the whole life of human being. .So Education is termed as a lifelong process. The field of Education is very rich and multifarious. It is a process of individual adjustment with his own self, with friends, relatives and members of society etc. Primary Education is one of the important stages of formal education. Primary Education provides the foundation of child's physical, emotion mental, intellectual and social development. School is one of the most important formal agencies of education from where we can acquire every types of knowledge which are necessary for the adjustment of individual in his or her immediate situations of life .But in today's society an unfavourable competition arouse between government and private school. There can be seen various opinion between various people about the two types of management of primary education. on the basis of viewpoints of both side an attempt has been made to study different advantages and disadvantages in different aspect of government school and private schools by this study. The paper tries to compare the government and private primary education system.

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**Keywords:** Primary education, government school, private school

**Introduction:** “Plants are developed by cultivation and men by education”. Through this statement of J.J Rousseau, it is very easier to understand the meaning and importance of ‘EDUCATION’ in one’s life. Education is one of the most powerful ways to all round development of an individual. The derivative meaning of education is the acquisition of knowledge, skills and attitudes on certain topic.

In the words of John deway”Education is development of all those capacities in the individual which will enable him to control his environment and fulfil his possibilities.”

Education helps us to adjust with our immediate situations by modifying our innate behaviour. The main source of the development of human society is education. Education creates all kinds of awareness to human being. It removes all kinds of superstitious thinking from the society and brings

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modernization in terms of socio-cultural aspect of a society.

Primary Education is one of the essential parts of the whole formal education system. Education of preparation for life of child starts in this stage. Children generally enrol in primary school at the age of 5 or 6. Sound primary education is the basic of sound secondary and higher education. Primary education is the basic right of every child. Due to this importance most of the educationally advanced countries of the world have made elementary education free, compulsory and universal. India is also fully conscious of the need of providing free education to all school going children.

**Objectives of the Study:** In brief the problems of the study can be formulated in the following objectives:

1. To study the infrastructures and other facilities of the government and private schools.
2. To compare the educational qualification and training of teachers between government and private school teachers.
3. To observe the disciplinary approach of private and government schools.
4. To compare teacher-student ratio between government and private schools.

**Field of the Study:** This study was delimited in the area of Nagaon city and the samples were collected from different government and private primary schools under the area of Nagaon city.

**Methods and Procedures:** Keeping in view the purpose and importance of the study the investigator has adopted "SURVEY STUDIES" based on descriptive research method. The methodology followed in the present study is detailed under the following headings:

1. **Population:** The population of the study covers all primary level government and private primary schools under the area of Nagaon city.
2. **Selection of sample:** The choice of the sample of this study was made keeping in view the major objectives of the study. Here the simple random sampling technique has been employed. The general sample consisted of 4 government schools and 4 primary schools.
3. **Tools used for data collection:** For this study only primary data was used. The primary data was collected by using a questionnaire distributed among the teachers of selected schools. Apart from questionnaire interview and observation were also used as a tool of data collection.

**Findings of the Study:**

On the basis of the data collection process using different tools like questionnaire, observation, method the investigator find out some important facts. They are as follows:

1. The infrastructure facility of government primary school is better than private primary schools. From the data collected it was observed that due to the lack of space the size of classroom of private primary schools are very small and also they have lack of desk bench in comparison to the number of

students. But the classroom size of government schools was appropriate to their number of students and they have no problem of lack of desk bench as it was provided by govern. There is no provision of library in the private primary schools but almost all the government schools have their own library.

2. There was enough teaching stuff in private primary schools. On the other hand it can be seen the lack of teachers in the government primary schools in comparison to their number of students. As a result the real rate of teacher student ratio is less than 1:30; it was one of the important factors for decrease the quality of education in government school.

On the other hand in relation to the professional training of teachers almost all private primary school teachers have not any kinds of professional training. In this aspect government school teachers are trained by different professional training.

3. In the observation of the investigator the result was come out in relation to the disciplinary approach both government and private primary school trying to give the lessons of discipline , rule regulation as well as human value equally.

4. In relation to the teacher student ratio, as the number of teacher in government school was not enough as per their number of student the ratio of teacher student is less than private primary schools because private schools have enough teaching staff for their students.

#### **Conclusion:**

There is a wrong concept of people that only private school give quality education .As school is the place where we acquire knowledge, so both type of management are equally improved. A best school depends on the headmaster and managing authority of the school. Hence every member related to the school should have equal responsibility towards the school to give better facility to our students to receive quality education of a school is determined by the level of management.

**Suggestion:** To remove the problems of government school some suggestions are mentioned below—

1. The number of teaching staff should increase in government schools so that the ratio of teacher student in each class may have 1:30.
2. There should be strict provision of rules and regulation and discipline in schools.
3. Various co-curricular activities should include in the curriculum for all round development of students.
4. Teacher should have interest in the application of various innovative methods in teaching process.

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#### **References :**

1. Kothari, S.R, Research Methodology –KSK publishers (Methods and techniques)—2004.

2. Goswami, DR. Marami , New Approach to Education,Ashok publication , Panbazar Guwahati -1, 1<sup>st</sup> edition August 2014 (School and its organization
3. Ahiya , V. Ram- Reseach Methods – Rawat publication- 2001.

## Impact of Commercialization on Quality Education

\* Punit Vajubhai Teraiya

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**Abstract-** *A teacher, hidden in the shadow of the student, must guide him to move ahead and resurrect our broken society. From the time when education started its first phase of commercialization, the responsibilities of the teacher too, have been compromised. It is painful to note that people are beginning to view it as just another job which pays them and feeds them. The paradigm shift in higher education from service to business is a growing concern today. The decade of 2000s has been associated with the process of expansion, privatization and internationalization of Indian Higher Education sector. The commercialization of education has a dreadful effect which is so subtle that it often goes undetected. Another worrying aspect of this commercialization is that the interest of the youth and the kind of education that develops his/her full potential and wholesome personality is sidelined. There is a need for government intervention correcting systematic anomalies. If commercialization persists and continues to grow unchecked, anything and everything will be exploited and manipulated for profit in higher education. Various aspects of commercialized education system affect the students' psychological state as well as general behavior.*

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**Key Word: Education, Knowledge, Quality**

**Introduction:** Education was something that was always driven by devotion and thought. Helped by their own volition, teachers were successful potters molding men and women into the embodiment of an intangible divine force, of rectitude. Sadly though, the twin foundations have penetrated the department of education as well, subverting it, leading to the establishment of a commercial education system that manufactures solipsists but doesn't nurture altruists. Education has always been considered sacred grounds, something you are not supposed to mess with. Driven by the devotion to knowledge and giving thought to the quality of the knowledge imparted, it was a domain where only the experts meddled. Educational institutes were revered places where entry was allowed only to those who were deemed worthy enough of walking on the grounds of these reverential places. But lately this one pious area has gone for a toss too. Commercialization has seeped deeply into the soul of education and now it is no longer about the knowledge the students gain, but about how much money can you extricate from them.

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**Impact of Commercialization on Quality Education:**

Today university students increasingly view education and the time they spend at university as a means to an economic end, a way of ensuring profitable employment. This is not to say that there should not be an economic benefit to their obtaining a degree. However, while the outcomes of a commodity-based exchange in the free market are easy to measure and quantify, the outcome of education, unless it is erroneously equated with the degree as an 'embodied' form of capital, is not easily quantifiable. The social and cultural trends that foster a mentality where education equals a degree serve to further obscure the benefits of education that are not easily quantifiable and not immediately cashable. However, in the context of the growing commercialization of higher education and its increasing coding as a commodity that can be purchased like any other, the concept acquires distinct market undertones. This contributes to the perception that students are consumers of a service for a very specific reason seen in limited, commercial terms- mainly as a ticket to a well-paying job. In that sense, students are implicitly encouraged to approach in very similar terms to, say, purchasing a car. Colleges and universities, in turn, feel increasingly compelled to cater to the apparent market-driven demand for utility and choice.

Firstly, commercialization of higher education generally results in state-of-the-art facilities for all students as money is no longer a constraint. Moreover as universities are free to enter into corporate ties with variety of industries they can improve and upgrade their infrastructure through corporate funding. The better infrastructure ultimately benefits the students. The students also get the opportunity to get trained in corporate firms and get valuable industry exposure because of a Memorandum of Understanding that is in place between the university and the organization. Another boon of commercialization of higher education is the fact that surveys found privatized universities being more professional in their approach than their public counterparts.

The main drawback of commercialization of higher education is the high tuition fees associated with it. Most parents belonging to the lower middle class with more than one child to educate usually find it impossible to afford such a luxury. Privatized institutions are being symbolized by the rich and elite sections of our society. We may argue that education being the basic right of an individual must be provided uniformly to all irrespective of their financial status. Some academicians have even voiced their concern over procurement of knowledge in exchange of money.

**Conclusion:**

The important thing for the government is not to do things which individuals are doing already, and to do them a little better or a little worse; but to do those things which at present are not done at all. The role of the state in higher education has to be redefined. There is a need for careful planning, enhanced financing and evolving an enabling policy framework to make higher

education accessible, equitable and qualitative.

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**References :**

1. AICTE (1994) report of the High Power Committee for mobilization of Additional Resources for Technical Education, All India Council for Technical Education, New Delhi.
2. Government of India (1997) Approach paper to the ninth Five year plan : 1997-2002, Planning Commission, New Delhi.
3. Rani, Geetha, P. (2003) Financing Education in India in the Economic Reform Period : Focus on Intra sectoral Allocation of Resources to education , in Globalization and Challenges of Education, NIEPA, 2003.
4. Dr. C. Rangrajan, Chairman – economic Advisory Council to The Prime Minister

## **Is There Any Differences between High and Low Achiever Male Kabaddi Players in Sports Competitive Anxiety?**

**\* Minaxi Mansukhbhai Patel**

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**Abstract-** *Competitive Sports anxiety is something that nearly every athlete faces some time in his or her career. When the demands of training or competition exceed an athlete's perceived ability, their stress level elevates. Anxiety is the inevitable outcome. Competitive anxiety is often linked to the fear of failure, and an athlete's perception of his or her abilities may be based on a previous performance, or beliefs regarding the opposition or the perceived importance of the competition. The athlete's perception can also vary greatly from event to event, depending on his or her perceived state of physical and mental preparation in each case. The present study was conducted to know the differences between high and low achiever male Kabaddi players in sports competitive anxiety. The objective of the study was to measure and compare Sports competitive Anxiety of High and Low achievers male Kabaddi players. The hypothesis was, there will not be significant difference between mean scores of the High and Low achievers male Kabaddi players in Sports competitive Anxiety Test. The scope of research of the present study was Physical education, sport training and Sports psychology. The present study was an applied research and quantitative research. For accomplish the study, purposive sampling technique was used to select the sample of 48(12\*4) players from Saurashtra University inter college male Kabaddi competition 2017-18 with the age group of 18 to 25 years. The present research was conducted through descriptive research method. In the present study researcher used Sports Competition Anxiety Test. The t-value to determine the significance between the mean scores was 0.302, which was not significant. Therefore the null hypothesis, "There will not be significant difference between mean scores of the High and Low achievers male Kabaddi players in Sports competitive Anxiety Test." is accepted and the research hypothesis is rejected. It was concluded that there is no significant difference observed between high position holders and low position holders in their competitive anxiety level.*

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**Key Word: Sports Competitive Anxiety, Achievement**

**Introduction:** Anxiety is a feeling of uneasiness and worry, usually generalized and unfocused as an overreaction to a situation that is only subjectively seen

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as menacing. It is often accompanied by muscular tension, restlessness, fatigue and problems in concentration. Anxiety can be appropriate, but when experienced regularly the individual may suffer from an anxiety disorder. Psychologists generally differentiate between two types: Trait anxiety relates to an aspect of personality in which nervousness is a stable personality trait in an individual. State anxiety on the other hand refers to temporary feelings of anxiety in a particular situation. The present study was conducted to know the differences between high and low achiever male Kabaddi players in sports competitive anxiety.

**Statement of the Problem:** The Statement of the problem is, “Is There Any Differences between High And Low Achiever male Kabaddi Players in Sports Competitive Anxiety?”

**Objectives of the Study:**

1. To measure Sports competitive Anxiety of High and Low achievers male Kabaddi players.
2. To compare the mean score of Sports competitive Anxiety between High and Low achievers male Kabaddi players.

**Hypothesis:** There will not be significant difference between mean scores of the High and Low achievers male Kabaddi players in Sports competitive Anxiety Test

**Variables:**

1. Independent Variable: Kabaddi Players (Level 1: High Achiever, Level 2: Low Achiever)
2. Dependent Variable: Score of SCAT
3. Control Variable: Age: 18 to 25 years  
Gender: Male  
Academic Year: 2017-18  
Area: Saurashtra University  
Standard: College

**Scope of research:** The scope of research of the present study was Physical education, Sports Training and Sports psychology.

**Type of research:** The present study applied the theoretical knowledge in to practice and therefore it was an applied research. The data collected in the present research was in quantitative form. The data analysis was also done using the statistical techniques and procedure. Thus the present research was a quantitative research according to its implementation form.

**Delimitations:**

1. The study was delimited to the age group of 18 to 25 years only.
2. The study was delimited to the academic year 2017-18 only.
3. The study was delimited to the male only.
4. The study was delimited to the Saurashtra University affiliated colleges only.
5. The study was delimited to the college Kabaddi players only.



**Limitations of the study:**

1. The researcher did not consider the hereditary factors of the subject in the present study.
2. The researcher did not consider the diet related things in the present study.
3. The researcher did not consider the daily life style, routine, individual hobbies and individual habits in the present study.

**Population:** In the present study, male college players of Saurashtra University were selected as a population.

**Sampling:**

For accomplish the study, purposive sampling technique was used to select the sample of 48(12\*4) players from Saurashtra University inter college Male Kabaddi competition 2016-17 with the age group of 18 to 25 years. The team who got the first and second position were consider as high achievers and the team who got third and fourth position were consider as low achievers.

**Research Method:** The present research was conducted through descriptive research method.

**Research Tool:** In the present study researcher used Sports Competition Anxiety Test (SCAT, 1990) which is developed by Martens, Vealey, and Burton.

**Scoring of SCAT:**

Sports Competition Anxiety Test by Martens, Vealey, and Burton consists of total 15 statements. Scores obtained for each statement was added up which represent an individual's total score on Sports Competition Anxiety (SCAT Score). The scores were obtained by using the key as suggested by Martens et al. 1990. Then the SCAT score was analyzed.

**Statistical Analysis:** Descriptive statistic, mean, standard deviation and independent t-test was applied to compare the degree of sports competitive anxiety between high and low achievers male kabaddi players.

**Collection of Data:** The necessary data was collected by administering the tests for the chosen components. After taken test whatever the data get was noted by researcher.

**Results and Interpretation:**

**Results:** Null Hypothesis: There will not be significant difference between mean scores of the High and Low achievers male Kabaddi players in Sports competitive Anxiety Test.

**Table 1**  
**Mean, S.D. and t-value of Sports competitive anxiety between both the groups**

Group	N	Mean	S.D.	SEM	t-value	Level of Significance
High Achiever	24	19.33	2.14	0.43	0.302	Not Significant
Low Achiever	24	19.16	1.65	0.33		

The data presented in the above table 1 was used to test the null hypothesis. The observation of the data presented in the above table 1 indicates that total number of students was 48. 24 students were in high achiever group and 24 students were in low achieve group. The mean score of the high achiever group and low achiever group based on the SCAT scores was respectively 19.33 and 19.16; Standard deviation respectively 2.14 and 1.65. The t-value to determine the significance between the mean scores was 0.302, which was not significant. Therefore the null hypothesis, "There will not be significant difference between mean scores of the High and Low achievers male Kabaddi players in Sports competitive Anxiety Test." is accepted and the research hypothesis is rejected.

**Conclusion:** It was concluded that there is no significant difference observed between high position holders and low position holders in their competitive anxiety level.

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#### References :

1. Agrawal J. C., Education Research and Introduction, Arya Book Depot, New Delhi, India, 1996.
2. C. R. Kothari, Research Methodology, New Age International Pvt. Ltd. Publishers, New Delhi, India, 2008.
3. Marten Rainer, Coaches Guide to Sports Psychology, Human Kinetics Inc., USA, 1942.
4. Martin Kathleen A, Mack Diane. Relationships between physical self-presentation and sport competition trait anxiety: A preliminary study, Journal of sport & Exercise Psychology, JSEP 1996; 18(1):75-82.
5. Singh KV. A study on effect of sports competition anxiety level of competition on incidence, International Seminar on Physical Education Recreation and Yogic Sciences, 2012, 259-262.

## Effects of Plyometrics Training and Circuit Training Programme on Selected Physiological Variables of Cricket Players

\* Rahul K.Deria

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**Abstract-** The propose of this study was to determine the effect of the Plyometrics training and circuit training on the physiological variables of the cricket players. For this study the sample size (a group of 48 players) is taken from H.N. G.U. Patan. They were selected by using random sampling method for total strength of cricket players in the college. The age group of subject range between 17-25 years. The medically examination was done in order to be assured that they all were medically and physically fit. Among them, the students were given choice to choose any of the 3 group of their wish such as Plyometrics training group 16, Circuit training group 16, and Control group 16, the Physiological components like Blood pressure, Vital Capacity, Breath Holding Capacity, Heart Rate, were noted down. Later among the 3 groups, the Plyometricstraining group was taught only Plyometrics training, for the Circuit training group only Circuit training was taught for six week and later the physiological components were noted.

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**Keywords :** Plyometric, Circuit, Blood pressure, Vital capacity, Breathe holding capacity, Heart rate. Anova, Ancova

**Introduction:** Plyometrics are exercises that evolved from old soviet training methods created by yuriverkhoshansky around the 60 and 70. It was originally called shock training and this training method started getting popular because east European athletes began dominating the sports world in the 1979. They were outclassing athletes from other countries in the Olympics, wining medal after medal. Their success was largely attributed to their unique training method. The term “Plyometrics” is believed to have been coined in 1975 by an American track and field coach called fred wilt. As the years went by, Plyometrics grew in popularity, and today, they are very common in training programs for any sports that requires explosive movements e.g. basketball, volleyball, mixed martial arts and most sports in general.

Circuit training is an everlasting and evolving training exercise programme developed by R.E. Morgan and G.T. Anderson in 1953 at the University of Leeds, England. Circuit training was developed to allow people to work at their own intensity while also training with others. In the original

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format, a circuit would comprise of 9 to 12 stations. A participant would move from one station to the next with little rest and performing an exercise for a set period of time or number of repetitions. During the Circuit training session all the energy system interweaves to enable different intensity activities to be performed. This will result in the aerobic energy system being more predominant during some exercises and the anaerobic energy system will be more predominant in other exercises.

Circuit training is an excellent way to improve mobility, strength and stamina. The circuit training comprises of 6 to 10 strength exercises that are completed one exercise after another. Each exercise is performed for a specified number of repetitions or for a set time before moving on to the next exercise. The exercises within each circuit are separated by a short rest period and each circuit is separated by a longer rest period. The total number of circuits performed during a training session may vary from two to six depending on your training level (beginner, intermediate, or advanced), your period of training (preparation or competition) and your training objective.

#### **Method:**

The samples of the study were 48 male cricket players of the age group between 17-25 years. The samples were selected using the random sampling method. The above 48 samples were divided into 3 groups. All 3 groups consist of 16 players (sample) of these a Plyometrics training was given to group A. Circuit training given to group B. and group C considered as a control group. After the division there was a pre Physiological variable test as they were Blood pressure, Vital capacity, Breath holding capacity, and Heart rate. After the pre test all above groups given six week training. In this training load and intensity was added and lessened every week. After six week training they were given the same test. The Blood pressure was measured by Sphygmomanometer (Hg/MM), Vital capacity by Spirometer (Liter) Breath holding capacity by Stopwatch (Second), and Heart rate by Stethoscope (1 Minute/score).

#### **Analysis of Data and Results:**

Test	Blood Pressure Systolic			Individual Difference	Mean Difference	F Ratio
	A Group	B Group	C Group			
Pre Test	84.38	81.38	96.81	2	1600008.25	5.11
				45	312904.66	
Post Test	98.19	98.19	96.31	2	2264334.67	6.01
				45	376554.10	
Adjusted Mean	97.70	98.23	96.76	2	2778782.62	7.86*
				45	353689.01	

Significance level 0.05 standard (2, 45) 5.12

In the above was seen that the pre test means for the two experimental groups

(A and B) and the C Were 84.38, 81.38 and 96.81 respectively. The resultant “F” ratio of pre test was found to be significant indicating that there was initial significant difference among the groups. The post test means of A, B and C was 98.19, 98.19 and 96.31 respectively. The yielded “F” ratio for post test was 6.01 which was found to be significant at 5% level of confidence.

Test	Blood Pressure Diastolic			Individual Difference	Mean Difference	F Ratio
	A Group	B Group	C Group			
Pre Test	60.88	59.88	70.88	2	848695.00	5.99
				45	166825.01	
Post Test	69.44	69.94	68.00	2	1140893.29	6.04
				45	188844.01	
Adjusted Mean	69.11	69.66	68.60	2	1397889.44	7.88*
				45	177421.35	

Significance level 00.5 standard (2, 45) 5.12

In the above was seen that the pre test means for the two experimental groups (A and B) and the C Were 60.88, 59.88 and 70.88 respectively. The resultant “F” ratio of pre test was found to be significant indicating that there was initial significant difference among the groups. The post test means of A, B and C was 69.44, 69.94 and 68.80 respectively. The yielded “F” ratio for post test was 6.04 which was found to be significant at 5% level of confidence.

Test	Vital Capacity			Individual Difference	Mean Difference	F Ratio
	A Group	B Group	C Group			
Pre Test	1306.25	1218.75	1193.75	2	369530000.00	5.06
				45	72981106.48	
Post Test	1456.25	1431.25	1275.00	2	492196562.50	6.67
				45	73771555.56	
Adjusted Mean	1388.83	1452.32	1321.35	2	601489466.34	8.73*
				45	68913906.59	

Significance level 00.5 standard (2, 45) 5.12

In the above was seen that the pre test means for the two experimental groups (A and B) and the C Were 1306.25, 1218.75 and 1193.75 respectively. The resultant “F” ratio of pre test was found to be significant indicating that there was initial significant difference among the groups. The post test means of A, B and C was 1456.25, 1431.25 and 1275.00 respectively. The yielded “F” ratio for post test was 6.67 which was found to be significant at 5% level of confidence.

Test	Breath Holding Capacity			Individual Difference	Mean Difference	F Ratio
	A Group	B Group	C Group			
Pre Test	35.23	39.44	43.82	2	325615.26	5.11
				45	63728.12	
Post Test	47.60	49.57	45.51	2	555767.29	6.27
				45	88695.52	
Adjusted Mean	47.08	49.32	46.27	2	680803.94	8.19*
				45	83137.87	

Significance level 00.5 standard 92, 45) 5.12

In the above was seen that the pre test means for the two experimental groups (A and B) and the C Were 35.23, 39.44 and 43.82 respectively. The resultant “F” ratio of pre test was found to be significant indicating that there was initial significant difference among the groups. The post test means of A, B and C was 47.60, 49.57 and 45.51 respectively. The yielded “F” ratio for post test was 6.27 which was found to be significant at 5% level of confidence.

Test	Heart Rate			Individual Difference	Mean Difference	F Ratio
	A Group	B Group	C Group			
Pre Test	61.94	60.13	71.31	2	867606.72	5.11
				45	169737.52	
Post Test	71.56	73.19	70.38	2	1230930.00	6.06
				45	203081.86	
Adjusted Mean	71.35	72.68	71.09	2	1510206.25	7.92*
				45	190669.15	

Significance level 00.5 standard 92, 45) 5.12

In the above was seen that the pre test means for the two experimental groups (A and B) and the C Were 61.94, 60.13 and 71.31 respectively. The resultant “F” ratio of pre test was found to be significant indicating that there was initial significant difference among the groups. The post test means of A, B and C was 71.56, 71.19 and 70.38 respectively. The yielded “F” ratio for post test was 6.06 which was found to be significant at 5% level of confidence.

### Findings & Conclusions:

The analysis of data revealed that the two experimental groups trained by Plyometric training and Circuit training group showed Blood pressure Systolic higher then control group. If choice is to be made out of two trainings. It was observed from the result of the study that the two experimental groups showed significant gain in blood pressure diastolic. Plyometric training and Circuit training group were effective while control groups was least effective in blood pressure diastolic.

It was observed from the result of the study that the two experimental groups showed significant gain in Vital Capacity. Plyometric training group and Circuit training effective in Vital Capacity. If the choice is to be made plyometric training should be preferred which means plyometric training may

be recommended for improving Vital Capacity. It was observed from the result of the study that the two experimental groups showed significant gain in Breath Holding Capacity. Plyometric training and Circuit Training Group were effective while control Groups was least effective in Breath Holding Capacity.

It showed significant gains in Heart Rate. Plyometric Training and Circuit Training Group were effective while Control Groups was least effective in Heart Rate.

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#### References :

1. <http://verticaljumpzone.com/plyometrics/the-truth-about-plyometrics>.
2. <http://www.fitness-central.co.uk/exercise/circuit-training/circuit-training-history/index.php>,p.1,online internet 12th October.2011.
3. <http://www.brianmac.co.uk/circuit.htm>, (1997) p.1 ,online internet 12th October.2011.
4. Sanjeev sonawan, Manual of fitness testing, Delhi friends publications , 2001.
5. <http://www.topendsports.com/testing/heart-rate.htm>.p.1 1 ,online internet 1st december.2011.

## **The Effect of Speed Development Training Programme on speed of College Students**

**\* Prakash Patel**

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**Abstract-** Speed is not just how fast someone can run (or cycle, swim etc.), but is dependent on their acceleration (how quickly they can accelerate from a stationary position), maximal speed of movement, and also speed maintenance (minimizing deceleration). Movement speed requires good strength and power, but also too much body weight and air resistance can act to slow the person down. In present study researcher want to know the effect of speed training programme on speed of college students. Researcher has formulated two research hypotheses like, There will not be significant difference between mean scores of the experimental group and Control group in the pre test of speed test. There will not be significant difference between mean scores of the experimental group and Control group in the post test of speed test. Researcher has determined independent variable as speed training programme, dependent variable as score of speed test. T.N.Rao College was selected using the purposive sampling technique from the population of Rajkot city. Total 60 women students were selected using simple randomized sampling technique. The students were divided into two divisions of 30 students each, one of which was in the experimental group and other of which was in the control group randomly. The data was collected before and after six weeks of training programme. 50 yard run test was used as a research tool. Speed was measured in second. The researcher selected experimental research method in the present study. The researcher formed group-1 and group-2 randomly. Thus two group Pre-test Post-test experimental research design was selected for the study. In order to compare the speed between control group and experimental group in pre test, the t-value is 0.049 which was not significant.. So the null hypothesis was accepted. In order to compare the speed between control group and experimental group in post test, the t-value is 03.67 which was not significant at 0.01 level. So the null hypothesis was rejected. It was concluded that improvement was seen in speed in students of experimental group. The speed development programme was affected.

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**Key Words: Speed Development Training Programme**

**Introduction:** Speed is one of the main fitness components, important for success in many sports. For some athletes such as Track and Field sprinters, sprint swimmers, cyclists and speed skaters, speed is the most important

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aspect of fitness. In many other sports, including team field sports, good speed is also very important as part of the overall fitness profile. A vote of the top sports requiring speed has the obvious ones of track and field sprinters on top. See also another list ranking sports in which speed is important. In the present study researcher want to know the effect of Speed Development Training Programme on speed of Under Graduate Students.

**Statement of the Problem:** The Statement of the problem is, “The Effect of Speed Development Training Programme on speed of college Students”

**Objectives of the Study:** Following were the objectives of the study.

1. To construct training programme for speed development
2. To conduct pre and post test of speed on students.
3. To compare and assess the effect of training programme on speed of students between experimental and control group.

**Null Hypothesis:** In the present study researcher has determined the following research hypothesis.

1. There will not be significant difference between mean scores of the experimental group and Control group in the pre test of speed test.
2. There will not be significant difference between mean scores of the experimental group and Control group in the post test of speed test.

**Variables:** In the present study researcher has determined the following Variables.

Independent Variable:	speed training programme
Dependent Variable:	score of speed
Control Variable:	gender (women), Area (Rajkot City) Standard (College) Academic Year (2017-18)

**Scope of research:** The scope of research of the present study was Physical education, Sports Training, and sports science.

**Type of research:** The present study applied the theoretical knowledge in to practice and therefore it was an applied research. The data collected in the present research was in quantitative form. The data analysis was also done using the statistical techniques and procedure. Thus the present research was a quantitative research according to its implementation form.

**Importance of the study:** To whom will the research be useful? Will it contribute something new? These things establish the importance of the study. Following is the importance of the study.

1. The present research included speed in the study. Therefore the present research will be useful to other researchers, teachers and students for the speed measurement and improvement.
2. The present research will be useful to teachers in giving innovative and interesting activities related to students' physical competence using the speed development training program.

3. The research will be useful to the future researchers in understanding the outline of the training program.

**Delimitations:** In the present study researcher has determined the following delimitations.

1. The study was delimited to women only.
2. The study was delimited to the Rajkot city only.
3. Yoga training period was delimited college students only.
4. The study was delimited to the academic year 2017-18.

**Limitations of the study:** Following were the limitations of the study:

1. The researcher did not consider the hereditary factors of the subject in the present study.
2. The researcher did not consider the activities other than included in the training program of the present study.
3. The researcher did not consider the diet related things in the present study.
4. The researcher did not consider the past of the subject in the present study.
5. The researcher did not consider the daily life style, routine, individual hobbies and individual habits in the present study.

**Population:** Population is the group of subjects from which the researcher selects sample for his research. In present study, college women students who were studied in Rajkot city during the academic year 2017-18 were selected as a population.

**Sampling:** Sample is the small scale group having all the representative characteristic features of the population. Shree T.N.Rao College was selected using the purposive sampling technique from the population of Rajkot city. Total 60 women students were selected using simple randomized sampling technique. The students were divided into two divisions of 30 students each, one of which was in the experimental group and other of which was in the control group randomly.

**Research Tool:** 50 yard run test was used as a research tool to measure speed. Speed was measured in second.

**Research Method:** The major aim of the present study was to construct the training programme and investigate the effect of training programme on speed of college students. The researcher selected experimental research method in the present study.

**Experimental research design of the present study:** The effect of independent variable was to be tested on the dependent variable. Therefore, true experimental research designs were used. The researcher formed group-1 and group-2 randomly. Thus two group, Pre-test, Post-test experimental research design was selected for the study.

**Collection of Data:** The necessary data was collected by administering the tests for the chosen component. The test was administered on the ground. The

use of apparatus was explained to them prior to the administration of tests. The data was collected before and after six weeks of training programme. Before and after training above mention test was taken by researcher on subjects. After taken test whatever the data get was noted by researcher. The score was taken in seconds.

**Implication of Speed Training Programme:** The group was administered 60 minute's speed training programme (6 days in a week) for a period of six weeks.

**Table -1**

Time	Section	Activity
10 minute	Warm up	Joint Rotation, Exercise for major muscles
40 minute	Speed Training	Sprinting, Circuit training, Fertlek training
5 Minute	Cooling Down	Stretching

Note: The above mention programme was in practice from Monday to Saturday for six consecutive weeks.

### **Results and Interpretation:**

#### **Comparison of speed between control and experimental group in pre test:**

**Null Hypothesis:** "There will not be significant difference between mean scores of the experimental group and Control group in the pre test of speed test."

**Table - 2**

Group	N	M	S.D.	t-value	Level of Significance
Control	30	7.834	0.44	0.049	Not Significant
Experimental	30	7.330	0.36		

In order to compare the speed between control group and experimental group in pre test, independent t-test was applied. The t-value is 0.049 which was not significant. It was concluded that there is no significant difference in speed between control group and experimental group test. So the null hypothesis was accepted.

#### **Comparison of speed between control and experimental group in post test:**

**Null Hypothesis:** "There will not be significant difference between mean scores of the experimental group and Control group in the post test of speed test."

**Table - 3**

Group	N	M	S.D.	t-value	Level of Significance
Control	30	7.81	0.41	3.67	Significant at 0.01 level
Experimental	30	7.42	0.43		

In order to compare the speed between control group and experimental group in post test, independent t-test was applied. The t-value is 03.67 which was not significant at 0.01 level. It was concluded that there significant

difference in speed between control group and experimental test. So the null hypothesis was rejected.

**Conclusion:** It was concluded that improvement was seen in speed in students of experimental group. The speed development programme was affected.

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#### **References :**

1. Daniel Mayogra Vega, Viciania Jesus, Cicca Armando, (2013). Effects of a Circuit Training Program on Muscular and Cardiovascular Endurance and their Maintenance in Schoolchildren, **Journal of Human Kinetics**, Published online, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3796833/>. Last assessed: 19/03/2018, July; 37, Page No: 153 to 160.
2. Kumar Vikesh (2016), Effect of Circuit Training Program on Selected Motor Abilities among University Male, **International Journal of Physical Education, Sports and Health**, 3(4): 255-257.
3. Chauhan Jaydipsinh (2016). **A Study Of Effects On Selected Aspects Of Physical Fitness And Kinetic Perceptivity By Interval Training And Continuous Training**, Unpublished Ph. D. Thesis, Saurashtra University, Rajkot.

## **An overview of craft evolution in and around Central India from the Mauryan era**

\* Srishti Umekar

\*\* Sukanta Majumdar, \*\*\* Soumik Halder

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**Abstract-** *Craft may be described as the grammar through which a form of art is executed. The end result may be utilitarian or non-utilitarian. India as a country is rich in crafts and its extensive practice. The diversified and traditional craft practices spread across the length and breadth of the country is age old and passed on through generations. A craft is born with the conjoining of several influencing factors. The evolution of craft through the ages has been a slow process but it has always been a reflection of socio cultural face of a particular region or community. In this research work, the influencing factors towards the birth of craft clusters in India are discussed. The broad classification of crafts in India its evolution of crafts and present status is also listed.*

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**Keywords:** Craft; region; craft cluster; artisans; crafts person; folk craft; era; individual craft; influences; guilds.

### **Introduction:**

**Crafts:** Crafts as defined by UNESCO is “Artisanal products are those produced by artisans, either completely by hand, or with the help of hand tools or even mechanical means, as long as the direct manual contribution of the artisan remains the most substantial component of the finished product. The special nature of artisanal products derives from their distinctive features, which can be utilitarian, aesthetic, creative, culturally attached, decorative, functional, traditional, religiously and socially symbolic and significant.” Development Commissioner of Handicrafts in India describes crafts as- “items made by hand, often with the use of simple tools, and generally artistic and/or traditional in nature. They objects of utility and objects of decoration” (Uttar Pradesh Development report, Planning Commission, Government of India Vol-2, 2007).

Kamaladevi Chattopadhyay (1963), known for her contribution in Indian

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freedom movement and a great visionary of Indian Craft, considered that a craft product, especially in the Indian region, is something that symbolizes the inner desires of a community and is not an 'industry'. She partly echoes William Morris (1888), founder of the Arts and Crafts Movement, who felt workmanship had value only if it expressed the maker's individuality (Rajangam.K. 2017).

**Birth of a craft cluster:** A craft cluster is born with the conjoining of several circumstances and influencing factors. They are as follows:

- Bio-geographical influence
- Socio-economic influence
- Socio-cultural Influence
- Historical Influence
- Market Influence
- Resource Influence
- Climatic Influence
- Administrative Influence of particular region

The influencing factors mentioned above are correlated in context to the initiation of a craft cluster in any place. The bio-geographical influence has a strong impact on the socio-cultural influence. It is also correlated with the historical influence, resource and climatic influence.

The practice of handicrafts is a local manifestation of social construction of identity and tradition. There is a huge variety of handicraft products because of the influence of the regions where the crafts came from, the natural resources used, the indigenous origin, traditions and customs and the artisan's creativity and skill (Giron. J. et al, 2007).

For example Bellaguntha is a block in district Ganjam in Odisha. It is a developed village primarily depending on agriculture as the mainstay of its economy. Agriculture includes farming, cattle rearing and fresh water fisheries in this village. Ponds or small water bodies are in abundance in the vicinity which leaves a substantial impact on the flora and fauna, culture as well as the climate of that place. The inhabitants of that village are mostly Hindus and are *Vaishnavs*. They worship the Vishnu *Matsya* Avatar (fish incarnation) of Lord Vishnu or Lakshmi Nrusingh (partly Lion incarnation of Lord Vishnu with Goddess Lakshmi). Legends say that the Bhanja Dynasty which used to rule that region was a patron of Vaishnavism. During their reign they established the Nrusinghanatha temple during 18<sup>th</sup> century A.D. Ponds and smaller fresh water bodies are part of life in that region. There are small temples of Vishnu *Matsya* Avatar constructed at the centre of ponds (Refer to Fig: 1.). Locals believe it protects them from calamities like cyclones, flood etc.



Fig: 1. Temple at the centre of a pond in Bellaguntha.

Bellaguntha is renowned for particular craft practices. They are as follows:

- Flexible Brass fish
- Flexible wood fish

The *Maharanas* who belong to the highest crafts person's clan in the region practice the craft. According to folklore these crafts were heavily patronized by the reigning Bhanja Dynasty of the region during 18<sup>th</sup> century A.D. The practice of these crafts passed hereditarily passed on through generations. The material resources required towards the practice of the aforementioned crafts i.e. Brass (for flexible brass fish) and Teak wood (flexible wood fish) has always been in demand as well as available in the region. Even to this day these crafts which are folk as well as very artistic individual crafts are practiced with similar passion. They are the face of the village and showcased in many national and international fairs with the support from state administration.



Fig: 2. Lord Jagannath as Vishnu's Fish Incarnation (flexible fish in wood).



Fig: 3. Flexible Brass fishes and wood fish

The example of the craft practices in Bellaguntha throws light on how the various influencing factors conjoin together towards the birth of a craft in a particular region.

#### **The influence of handicraft in the society:**

Acceptance of craft products in the society has always been very high historically. From as early as the Mauryan Era (400 B.C. to 200 B.C.), craft guilds were formed. The crafts persons were encouraged to practice the craft independently or in organized guilds set up by the state. Efforts were made to train people in the guilds and trade got influenced with the produce. The internal trading system in various types of goods among different regions was always emphasized. Crafts especially from textile guilds started earning revenue and repute through external trade (<http://www.historydiscussion.net/empires/mauryan-empire-administration-economic-condition-and-art-during-the-mauryan-period>, updated July 2013).

Over the period of time society has changed and so did the demands of the people due to urbanization. Still crafts to a large extent form the face of the society. The influence of craft in the society has been through various aspects. Few of them are as follows:

- Common man became enlightened and valued artefacts of daily utility or luxury across time and culture (Butterworth.L.,2016).
- Society value the contexts in which the craftsmanship used to be showcased and craft products were developed (Butterworth.L.,2016).
- Consistent practice of craft stimulated a sense of appreciation amongst people towards itself. It resulted in more visually aesthetic products as a part of healthy competition amongst craftsmen and their guilds. It thus enriched the society (Butterworth.L.,2016).
- craft is the reflection of inner desires of a community in particular region thereby impacting economy, trade and tourism (Chattopadhyay. K., 1963).
- Craft as a profession always helped in providing self-sustainability and



employment in the society building on the identity of a particular area thereby enhancing the economy.

Japanese philosopher Soetsu Yanagi who initiated the Mingei (folk art) movement in Japan in late 1920s and 1930s classified crafts as mentioned in Fig: 4 below.

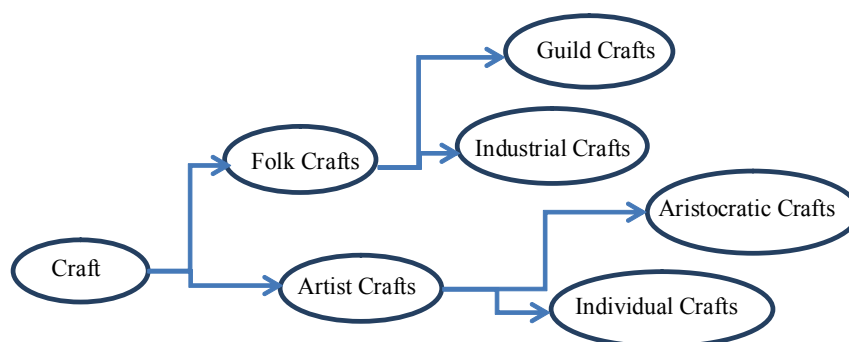


Fig: 4. Classification of crafts (Kikuchi.Y. 2004)

From the work of Soetsu Yanagi it may be deduced that Aristocratic crafts and to some extent the Individual crafts behold the signature of the craftsmen. It is consciously created by a few craftsmen. They price it accordingly. The Folk craft is a traditional practice which is affordable. Generally it beholds the signature of the tribe or community who is making it ideally in guilds (Kikuchi.,2004). For example, Gond folk art. Industrial crafts are batch produced ideally in operation floor. It beholds the signature of a larger region e.g. craft products from Rajasthan. So craft may be assumed as a funnel in which all forms of practices are practiced or poured for different takers in the society as depicted in Fig: 5.

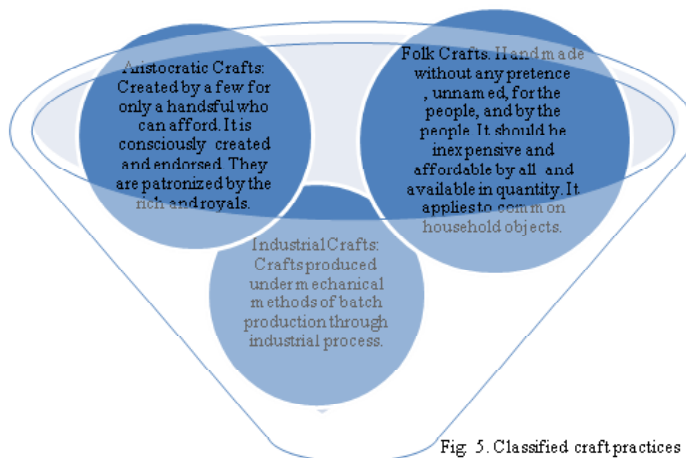


Fig. 5. Classified craft practices

Each of these classified craft practices mentioned in Fig: 4, like guild crafts, industrial crafts, aristocratic crafts and individual crafts are many a times interrelated. For example there is a bell metal (Dokra) craft cluster in

Betul, Madhya Pradesh. Over two hundred and fifty craftspeople both male and female especially from Gond tribe, are involved in the practice of the same. It ideally becomes a guild craft. They get orders from different state bodies or NGOs. The work is distributed among several sub-groups and common infrastructure is used. However there are certain crafts persons who other than performing the craft in guild also perform at individual level. They attempt to develop objects with higher intricate motifs and designs. They sell those objects to the affluent or to the museums only by their name and at relatively much higher price. From the example it is observed that individual or aristocratic craft practices prevailing with guild crafts.

Craft products are not just commodity they are a reflection of the community producing it and the society they belong to.

### **Theoretical Perspective:**

#### **Evolution of craft in India:**

During the Mauryan era (400 B.C. to 200 B.C.), (Dixit.M.G. 1954), substantial emphasis was given in to agriculture and its edification as the economy largely depended on the same. Peasants were enthused to bring more land under cultivation. The infrastructure provided by state included good irrigational facilities. After about one and half century of Mauryan rule the entire region witnessed growth of economy, art, architecture and education (<https://unacademy.com/lesson/administration-economic-and-socio-cultural-life-magadha-empire-for-upsc-cse>, updated in March 2017).

The *Arthashastra* laid down guidelines for crafts persons. The crafts persons were encouraged to practice the craft independently or in organized guilds set up by the state. In addition, many artisans were employed by the state for design, development and growth in various departments such as armourers, ship builders, etc. who were exempted from tax but had to work in the state's workshops.

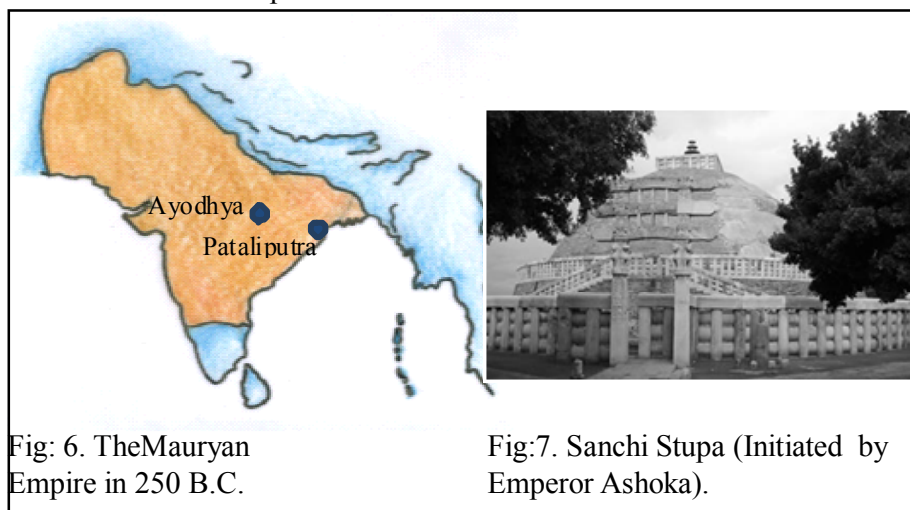
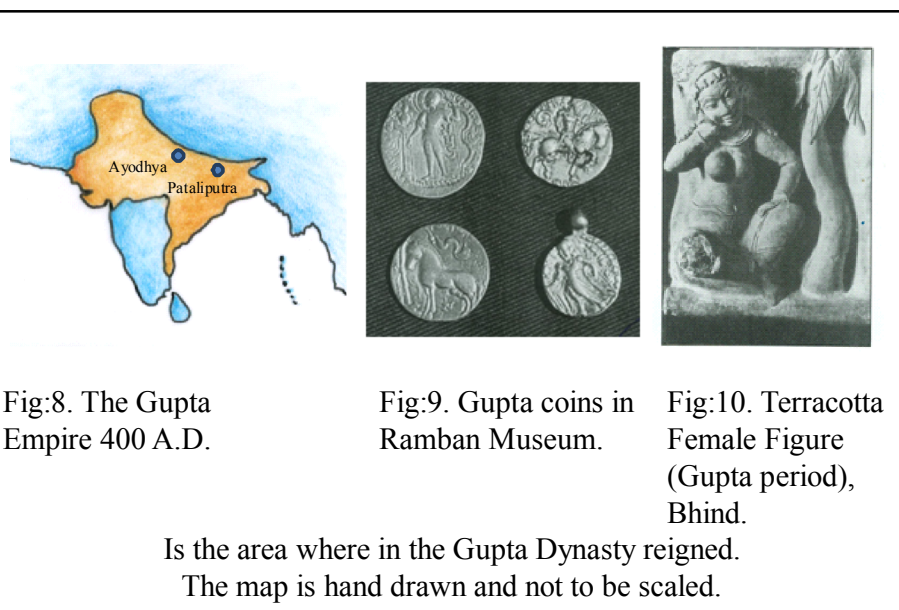


Fig: 6. The Mauryan Empire in 250 B.C.

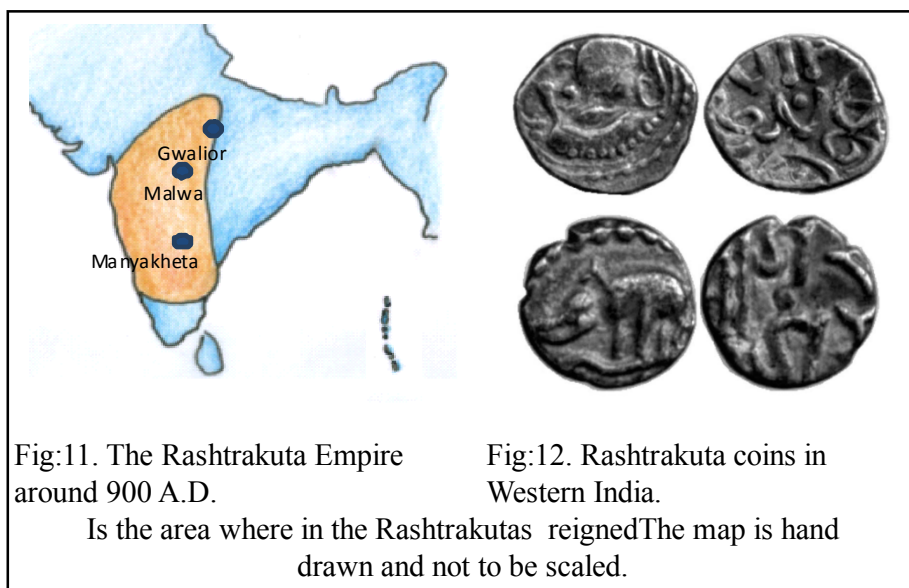
Fig:7. Sanchi Stupa (Initiated by Emperor Ashoka).

Is the area where in Mauryan dynastyreigned.The map is hand drawn and not to be scaled. Textile guilds or organizations dealing with proper vocations were very prominent at this time. Rich cotton fabrics were made in various places like Madhura, Aparanta, Kalinga, Kashi, Vanga, Vatsa and Mahisa. Guilds or organizations dealing with proper vocations had to employ hired labour and it consisted of two categories, the *karmakaras* or the *bhritakas* who were regarded as free labourers working for a regular wage. Metallurgy, pottery, wood-work and stone-cutting were other prominent crafts enterprises prevalent during the Mauryan period. Terracotta was a significant craft and was used to develop sculptures of deities, toys and various other household products. (<http://www.historydiscussion.net/empires/mauryan-empire-administration-economic-condition-and-art-during-the-mauryan-period>, updated July 2013). During the Gupta era (320 A.D. to 550 A.D.),([http://www.kkhsou.in/main/history/guptas\\_economy.html](http://www.kkhsou.in/main/history/guptas_economy.html), updated in 2011),revenue of the state depended primarily on agriculture and trade. State developed infrastructural support e.g. wells and irrigational canals were there for its agricultural produce. Domestic as well as external trade flourished during the Gupta Age. Trade relations were established with various countries like Ceylon, Burma, China, Persia, East-Indian Isles like Java, Bali and Sumatra, West Asia etc.



Art and architecture took huge leap forward which did influence the culture. Crafts and craftsmanship covered a lot of products and were valued during this period. Therefore guilds (*nigama*, *sreni*) were established in various areas eg. Taxila, Malwa, Mathura, Kausambi, Aichchhatra, Rajghat and Patliputra were famous for their terracotta work, artistic stone beads, blown

glass products, metal ware, textile etc. Significant use of jewellery amongst both men and women has been evidenced. Gem stone polishing, silk weaving, ivory work, stone cutting and carving and other hand crafted luxury products were highly rewarded (<http://www.History discussion.net/history-of-india/system-of-administration-during-gupta-age/2243>, updated in July, 2013). During the Rashtrakuta era (800 A.D. to 1200 A.D.), mining and industry were given ample emphasis. Agriculture and trade continued to gain state's usual attention. Textile industry and handicrafts flourished in this period. The state used to gain revenue from the exports of muslins, hides, indigo, incense, sandal and sandal wood work and teakwood, ivory and ivory work, metal work etc. At the same time articles like gold, wine, horses, copper, tin, topaz etc. were imported (Satpathy.B.B.,2016).



During the Delhi Sultnate rule, (1206 A.D. to 1556 A.D.), (Verma. D. 1955), Industry and trade was largely dominated by *Khurasani* Muslims and Hindus. Offshore trade included export of food grain like rice, pulses, millet, oilseeds, medicinal herbs, sugar etc and textiles to south Asian and Mediterranean countries. Import included primarily luxury goods for the affluent class and horses. During this period textile, sugar, indigo and various types of metal work industries acquired substantial significance. *Karkhanas* (workshops) were set by the nobles in the areas of textiles, metal armouires and weapon manufacturingetc (<http://www.columbia.edu/itc/mealac/pritchett/00islamlinks/ikram/part 108.html>, Updated in 2013).

Crafts and Craftsmanship flourished in the area of stone carving, pottery, weaving, wood carving, metal working, jewellery etc. The royal patrons promoted the indigenous craft to unprecedented heights. Newer crafts

like inlay work, glass engraving, carpet weaving on vertical loom were introduced in the society during this period ([http:// www.indianetzone.com/40/ medieval\\_indiancrafts.htm](http://www.indianetzone.com/40/medieval_indiancrafts.htm), updated in 2015).



Fig:13. Slave Dynasty  
1206 A.D. to 1290 A.D.

Is the area where in the Slave dynasty reigned. The map is hand drawn and not to be scaled.



Fig:14. Musoleum of Hoshang Shah, Mandu

It is observed that during the Mughal reign (1556 A.D. to 1800 A.D.), (Verma. D. 1955), hand skill or dexterity in creating products were predominantly emphasised. Crafts persons with indigenous skills had great respect in society. Industrial activity was essentially in the form of cottage industry. Products or goods of unique nature and hand skills were produced in various regions. Emphasis was made to keep the uniqueness of the craft confined to that region thereby making the region famous or known for the craft eg. cotton textiles of Bengal, stone inlay work of Agra etc (Mehta.B., 2013).



Fig:15. Mughal Dynasty 1690 A.D.

Is the area where in the Mughals reigned. The map is hand drawn and not to be scaled.



Fig:16. Pietra Dura (Inlay Work) at the Taj Mahal, during Mughal Period

Trade and commerce flourished like never before. Every village had a brisk market and they were supported by seasonal regional *melas* (Fairs). Foreign traders were encouraged to come for commercial activities.

Agrian and non agrian based *Karkhanas*(industries) and handicrafts provided enhancement to exports. The period saw great demand for Indian goods and artistry in Europe and Middle East. The export included goods like manufactured articles, cotton cloth, silk, indigo, salt, sugar, oilseeds, opium, beads, lac etc., other than food grains. Textiles, woollen goods, leather goods, crafted wooden products, pottery, carpets etc were in great demand in east of Africa, Middle East, Egypt and Europe. The imports were primarily, horses, bullion and luxury goods ([http://www.columbia.edu/itc/mealac/pritchett/00islamlinks/ikram/part2\\_17.html](http://www.columbia.edu/itc/mealac/pritchett/00islamlinks/ikram/part2_17.html), updated in 2013). Through all these ages it is observed that craft in the form of hand skills not only sustained but flourished. It happened through various means and provisions as mentioned in Table-1 with few examples of crafts.

**Table: 1. Sustenance of diverse craft practices through various means or provisions during various dynastic rules.**

Sl.No.	Dynastic Rule	Period	Crafts being practiced	Means/ Provisions through which the craft sustained
1	Mauryans	400 B.C. to 200 B.C.	Cotton Textile	Practiced largely in guilds. Sometimes it was also practiced independently as individual craft.
			Terracotta	Practiced largely in guilds. Sometimes it was also practiced independently as individual craft.
			Wood Work	Practiced largely in guilds. It was also a industrial craft as it was practiced in State workshop for armouries and ship building etc. It was also practiced independently as individual craft.
			Stone Cutting	Practiced largely in guilds. It was also practiced independently as individual craft.
			Metal Work	Practiced largely in guilds. It was also a industrial craft as it was practiced in State workshop for armouries and ship building etc. It was also practiced independently as individual craft.
			Ivory Work	Practiced in few guilds. Largely practiced as individual or aristocratic crafts
			Shell Work	Practiced largely in guilds. It was also practiced independently as individual craft.
2	Guptas	320 A.D. to 550 A.D.	Terracotta	Practiced largely in guilds. It was also practiced independently as individual craft.
			Artistic stone beads	Practiced largely in guilds. It was also practiced independently as individual craft.
			Blown glass products	Practiced largely in guilds. It was also practiced independently as individual craft. It was also practiced as aristocratic crafts.
			Metal ware	Practiced largely in guilds. It was also practiced independently as individual craft.
			Cotton and silk textile	Practiced largely in guilds. It was also practiced independently as individual craft. Woven silk textile was also largely practiced as aristocratic craft.
			Jewellery	Largely practiced as individual craft. Sometimes also practiced as aristocratic craft.
			Gem stone polishing	Largely practiced as individual craft. Sometimes also practiced as aristocratic craft.
			Ivory Work	Practiced in few guilds. Largely practiced as individual or aristocratic crafts
			Stone Cutting and carving	Practiced largely in guilds. It was also practiced independently as individual craft.

3	Rashtrakutas	800 A.D. to 1200 A.D.	Cotton and silk textile	Practiced largely in guilds especially weaving of muslin. It was also practiced independently as individual craft. Woven silk textile was also largely practiced as aristocratic craft.
			Wood Work	Practiced largely in guilds. Practiced as individual or aristocratic crafts especially with sandal wood.
			Ivory Work	Practiced in few guilds. Largely practiced as individual or aristocratic crafts.
			Metal ware	Practiced largely in guilds. It was also practiced independently as individual craft.
			Stone Cutting and carving	Practiced largely in guilds. It was also practiced independently as individual craft.
4	Delhi Sultnate	1206 A.D. to 1556 A.D.	Cotton and silk textile	Practiced largely in guilds. <i>Karkhanas</i> (workshops) were set by the nobles in the areas of textiles with an intention towards increasing the production. So it may be assumed that it was a industrial craft. It was also practiced independently as individual craft. Woven silk textile was also largely practiced as aristocratic craft.
			Metal Work	Practiced largely in guilds. <i>Karkhanas</i> (workshops) were set by the nobles in the areas of metal work especially towards armouries and weapon manufacturing with an intention towards increasing the production. So it may be assumed that it was a industrial craft. It was also practiced independently as individual craft.
			Inlay Work	This was relatively newer craft induced in society by the reigning dynasty. Practiced largely in guilds. Largely practiced as individual or aristocratic crafts
			Glass Engraving	This was relatively newer craft induced in society by the reigning dynasty. Practiced largely in guilds. Largely practiced as individual or aristocratic crafts
			Carpet Weaving on vertical loom	This was relatively newer craft induced in society by the reigning dynasty. Practiced largely in guilds. Largely practiced as individual or aristocratic crafts.
			Stone Carving	Practiced largely in guilds. Largely practiced as individual or aristocratic crafts
			Pottery	Practiced largely in guilds. Largely practiced as individual or aristocratic crafts
			Jewellery	Practiced largely in guilds. Largely practiced as individual or aristocratic crafts
5	Mughals	1556 A.D. to 1800 A.D.	Carpet Weaving on vertical loom	This was relatively newer craft induced in society by the reigning dynasty. Practiced largely in guilds. Largely practiced as individual or aristocratic crafts.
			Wood Working	Practiced largely in guilds. Largely practiced as individual or aristocratic crafts
			Inlay Work	This was relatively newer craft induced in society by the reigning dynasty. Practiced largely in guilds. Largely practiced as individual or aristocratic crafts
			Jewellery	Practiced largely in guilds. Largely practiced as individual or aristocratic crafts
			Cotton, woolen and silk textile	Cotton and woolen woven textiles was largely practiced in guilds. <i>Karkhanas</i> (workshops) were set by the nobles in the areas of textiles with an intention towards increasing the production. So it may be assumed that it was a industrial craft. It was also practiced independently as individual craft. Woven silk and woolen textile was also largely practiced as aristocratic craft.
			Leather goods	Practiced largely in guilds. Largely practiced as individual or aristocratic crafts.



If classified throughout the ages crafts have been practiced in various setups as mentioned in

Table-1. The classified setups are also in cognizance to Fig: 4. Patronization of crafts by the dynastic rulers or nobles always increased as the crafts gradually move up from the bottom of the pyramid (refer to Fig: 17.). Folk craft practiced in guilds fulfilling the immediate need of the society mostly lie at the base of the pyramid. There have been craft practices mentioned in Table: 1, wherein the craft used to be practiced in several setups, like guilds, *karkhanas* (workshops), individually practiced etc. In those cases it may be understood that the craft has grown with age and is practiced in various setups to cater different demands. Crafts which were practiced industrially were ideally to full fill mass needs through internal and external trade.

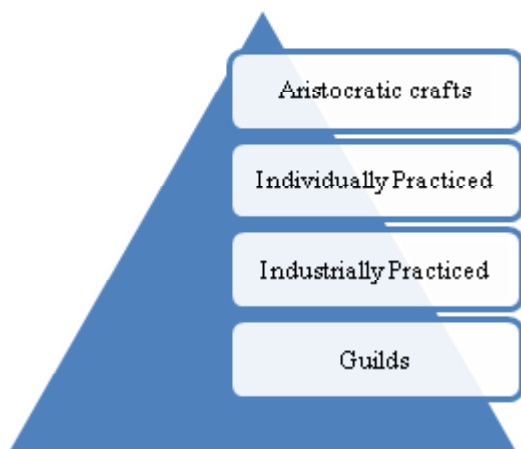


Fig: 17. Pyramid of patronization of crafts.

The more specialization that is acquired in a craft practice the more it led to its practice as individually practiced crafts and further to aristocratic crafts generally. Alchian. A. and Allen. W. (1969) in their study in “Exchange and Production: Theory in Use”, have described that craft specialization is considered by most archaeologists to be a key factor in the political economy of complex societies (Wailes. B., 1996).

#### **Sustenance of Indian crafts in present scenario:**

Crafts and craftsmen sustain through various means in present day post globalization society. The means may be broadly classified as follows (Refer to Fig: 18.).



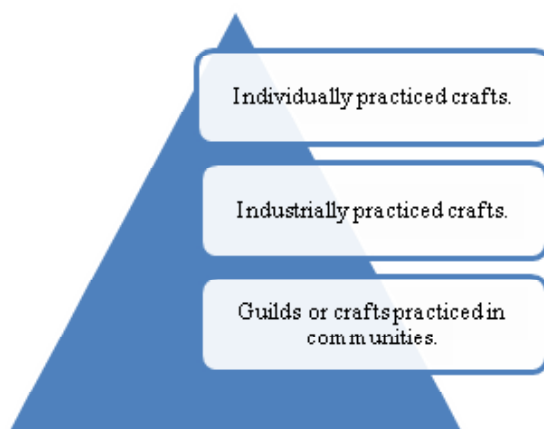


Fig: 18. Pyramid of patronization in present day.

Handicraft practice in guilds in present day is primarily associated with rural crafts. For example terracotta craft, bamboo basketry etc. The skills are passed hereditarily through generations to foster the needs of agriculturally inclined society. Particular communities belonging to certain castes, practices distinct craft even today like in medieval times. Like in Central India the *Prajapatis* are known for their skills on terracotta. The *Basods* apply themselves on bamboo basketry. Their community ideally live together. The craft is practiced mostly in home enterprise setup. The products are sold in the local *haats* (village markets), *melas* (fairs) or markets in nearby towns. The community or the guild gains a reputation of specialization in the vicinity. Through their skills they sustain on the social needs in the vicinity with a limited number of products.

It is observed that in the unorganized handicraft sector, the culture and social environment act as reinforcements for the strategies that are put together. It is widely accepted that the craftsmen are creative but at the same time they lack flexibility or lack orientation towards identifying opportunities for improving their enterprise. Rather, they are influenced and stuck by the local customs, practices and traditions. They also indicated that handicrafts as local manifestation of social construction of identity and tradition (Giron. J. et al (2007)

Industrially practiced crafts primarily focus on mass or batch production for export and internal trade pan India. There are numerous craft hubs in the country wherein craft is practiced industrially in *karkhanas* (workshops or manufacturing units). Few examples of such hubs are Moradabad for metal work, Saharanpur for wood work, Jodhpur for metal work and wood work, Jaipur for textiles, Panipat for textiles, Agra for stone carving and inlay, Kolkata for leather etc.

These hubs comprise numerous organizations or manufacturing units. They develop products as per the brief sent by clients abroad. Their products pass through a systematic operation floor with quality checks during their

construction. Manufacturing depends on mechanical processes and not effusively manual to cut dud the production time. Hand dexterity is generally depicted on the surface with visual elements like carving, etching, inlay work, block printing or some typical finishing etc. People are trained time to time to do so.

While studying the existing scenario of the Indian handicraft products analysis of growth of Indian Handicraft exports in context of the international market is done. Total exports of handicrafts with 8.94% of Compound Annual Growth Rate (CAGR) reveals increasing trend during the period of 19 years i.e. 1995-96 to 2012-13. The export share and growth rate of various products of handicraft have displayed remarkable progress over the study period which is a good sign for the Indian economy as well. It may be concluded that India has a vast domestic as well as global market (Kumar.N., 2014).

Individual crafts are practiced primarily for recognition. There is a lot of passion involved in this context. Craftsmen are deeply intrigued with the craft and have a fascination of developing something unique or innovative. It is practiced in studios or small workshops. The craftsmanship is passed hereditarily through generations. For example the Thewa craft in Mandsaur, Madhya Pradesh. Crafts persons of high repute (with state and national awards) practice the craft in their home studios or workshops. They work for few clients and participate in few exhibitions.



Fig: 19. Workspace of a Thewa craftsman.

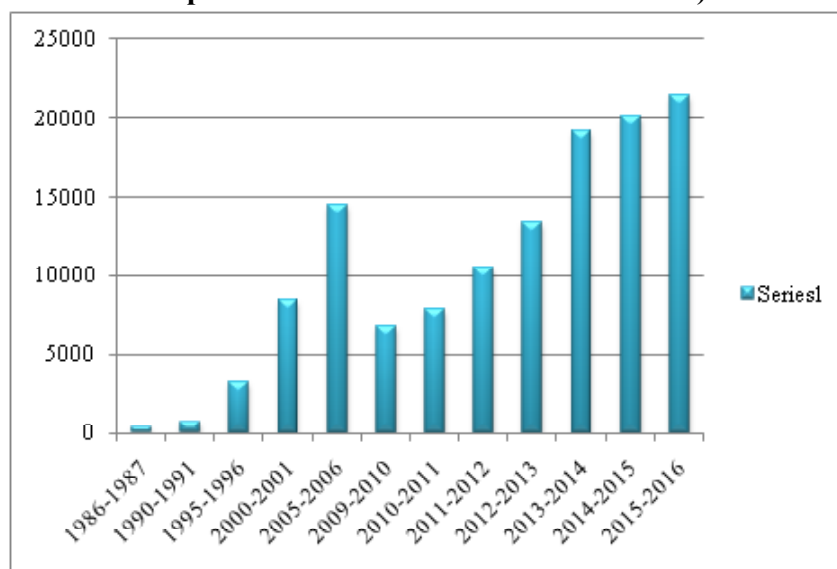
Fig: 20. Thewa Jewellery.

The craftsmen are possessive and motivated towards the creations, the tools required and the materials they use. They are focussed towards preserving the tradition. In their definition of success they keep their independence, creativity, cultural identity, continuing the handicraft tradition and controlling their own life as priority. They don't give much importance or keep it in secondary the profits and financial growth (Giron. J. et al (2007))

In a study of analysis of craft producers and craft production Liebl. M. et al explained that Indian crafts always had enormous potential within. Martand Singh, a scholar who has been involved with crafts and culture in India for many decades, used the phrase 'perennial potential', in context to crafts in

India. These phrase aptly describe crafts in India. In the 1990s, for example, handicrafts emerged as a major exportable from India. In eight years, 1993-2000, the scale of handicraft and handloom exports increased from about three thousand crore rupees ten thousand crore rupees, not including the large scale export of products classified as ‘gems and jewellery’ (a part of which is done by semi manual artisanal processes), (Liebl. M. et al 2003).

**Table: 2. Handicraft exports (in Crore Rupees) from India (Source- Export Promotion Council of Handicrafts).**



In the twenty first century of India's economy the handicrafts sector is one of the significant employment generators and also accounts for a considerable share in the country's exports. The state and regional craft concentration areas contribute significantly to revenue generation especially through exports. The diversified Indian handicrafts industry including hard goods and soft goods comprise approximately seventy lakh artisan and more than sixty seven thousand handicraft manufacturing units for exports, promoting regional art and craftsmanship globally as well as in domestic market (<https://www.ibef.org/exports/handicrafts-industry-india.aspx>, updated in May 2017). Growth of Handicraft exports from India is depicted in Table: 2.

**Table: 3. Depict the share of exports of handicrafts in major countries/regions.**

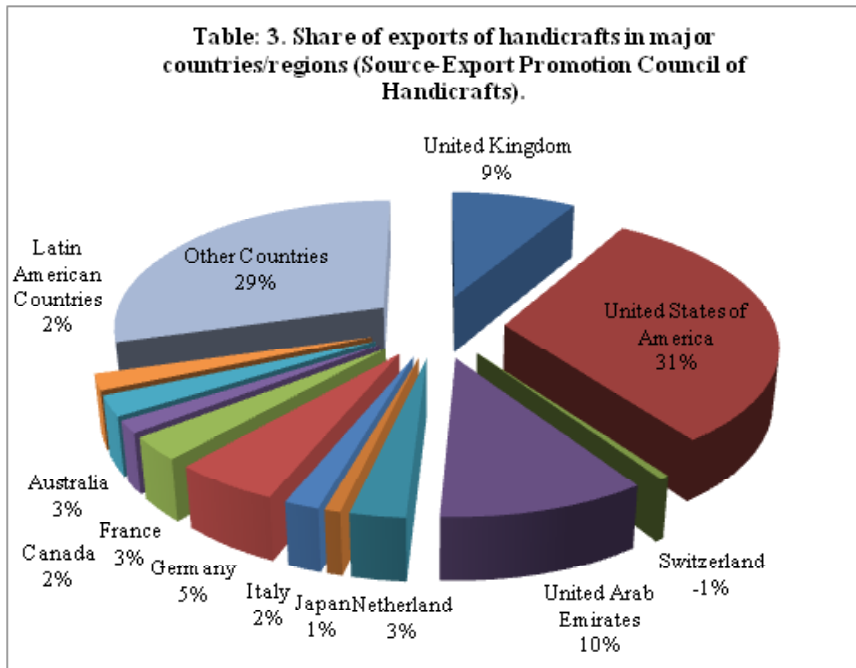


Table: 2. and Table: 3. throws light on the growth and expansion of Indian handicrafts industry as cited by Exports Promotion Council of Handicrafts. It prioritises primarily on the industrial handicraft in various regional craft concentration areas specializing in certain craft. Numerous folk crafts practiced in guilds and community even individually.

In the preindustrial age, territorial economy used to be fostered by agriculture, mining and fishing. In the industrial age, economies sustained primarily on manufacturing of goods. Whereas in post-industrial era services have been primary in context to growth and economy. The craftsmen practicing folk crafts individually and in guilds and at this age are placed somewhere in between the preindustrial and industrial eras, where service is not given priority. If service consists of the interaction between a customer and the firm, the artisans mostly cannot boast of the same as they hardly have any opportunity to interact with the end consumer because of the middlemen involved. It results in almost no direct feedback making it very difficult to generate value added service to the customer (Giron. J. et al, 2007).

Impact of globalization on crafts:

Carr. M. et al. in their study of "Globalization and the informal economy: how global trade and investment impact on the working poor", indicated that definition and perception of globalization may vary from person to person. However in a holistic view the term comprises all types of economic and

cultural transfers across nations. It includes the command of the media and widespread use of the World Wide Web. In pecuniary sense, it refers to the economic exchange of goods and services globally and international financial flows (Carr. M. et al. 2001).

Since the initiation of globalization in 1991 in India, the craft sector has been majorly affected. The industrial craft witnessed a phenomenal growth in exports from 712.99 crore rupees in 1990-91 to 14526.85 crore rupees in 2005-06 and then to 21457.91 crore rupees in 2015-16 (please refer to Table: 3, source-Export Promotion Council of Handicrafts). However craftsmen practicing folk crafts individually and in guilds faced challenges. Throughout ages they have been specializing in limited number of product areas. With the advent of globalization emanated the aspiration towards various lifestyles in the society. Market got overflowed with multiple products and brands for a particular purpose for example *silwattas* (stone grinders) for grinding food and spices slowly got replaced by electric grinders or food processors, the local cobblers got a severe beating from readymade footwear brands, the storage bamboo baskets at home got replaced by the colourful plastic ones etc. The role of capitalist middlemen did not help the cause of the crafts persons either.

The major changes introduced as a part of the liberalisation and globalisation policy in India comprised expulsion of the existing industrial licensing system, diminution in areas preserved for the public sector, modification in monopolies and the preventive trade practices act, beginning of the privatisation process etc. Nevertheless the influences of globalization have plenty positive effects in due course in many sectors of our economy and society, some of its undesirable implications against the poor in many cases have worried our development strategists. Post globalization the popularization of machine produced consumer goods challenged the handicraft guilds with quality and variety. Owing to this the craftsmen have lost enormous grounds. Problem compounded as the craftsmen became increasingly dependent on middle men or merchants who pay the artisans in wage on piece rate basis. The governmental establishments or setups or cooperative societies have not yielded much of success. There are over twenty five lakh artisans in rural India. They mostly lack formal education. They don't have the access to interact with the consumers wherein they may get a direct feedback towards product diversification and enhancement. Numerous small scale industries are also confronting massive difficulty in competing with the Chinese brands which have deeply intruded with low cost products. A report of the United Nations suggests that in India, over the past 30 years the number of artisans have declined by at least 30 per cent and many of these artisans are joining the ranks of casual wage labourers and the informal economy. For example there are a number of bamboo basket craftsmen in Jhabua, turn wood lacquer craftsmen in Budhni and many more who have opted to become

daily wage labourers (Mohanty. G. et al., 2007).

Fig: 21.

### **Conclusion:**

Dexterity is one of the prime strengths of the crafts being practiced in guilds or individually in India. The craftspersons invest a lifetime in understanding the material, processes and the tools. The understanding that they have towards the material handling with their tools is immaculate. It is also often found that they are located close to the material resource(excluding the textile guilds). These advantages do exist nevertheless they vary cluster to cluster or guild to guild.

The craft sector existing in guilds and clusters primarily in rural India was caught unprepared for the competition post liberalisation and globalisation policy in India. Which led to sharp decline in the demands in their existing markets. The existing markets got overflowed with alternative products. There is a need for plans to be developed for the long term sustenance of this enterprise. Few of them are as follows:

- The craftspersons need to be oriented towards urban lifestyle, which eventually has the potential to form the bulk of the market.
- They need to be oriented towards diversified product areas.
- Workshops may be conducted with design professionals to develop or innovate new products. It should be done without hampering their traditional techniques and process flow.
- Education need to be encouraged in the community with a view to maintain rational thought process in the whole practice and execution of crafts. In future people from the community may lead and expand the enterprise providing a greater sense of belonging.
- Alternative markets need to be introduced.
- Craftspersons being the designers deserve to receive feedback from their consumers. It will help in redefinition of products.

One should not forget that the beauty is that a particular craft is practiced in a cluster or guild. Too much of technical upgradation may jeopardise the whole environment. The essence of ethnic practice should always be retained. The craftsperson need to be well versed with the changes that are happening with time.

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- c) Mr. Ashok Soni (47), White metal tribal jewellery artisan in Jobat(Alirajpur).
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  - e) Mr. SupriyaPrajapati (41), Terracotta artisan in Jobat (Alirajpur).
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  - l) Mr. Shiv Prasad Prajapati (48), Terracotta artisan in Neempani, Betul.
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#### References :

1. Uttar Pradesh Development report, Planning Commission, Government of India Vol-2, 2007, Uttar Pradesh Development report- Vol-II, source- [http://planningcommission.nic.in/plans/stateplan/upsdr/vol-2/00\\_1.pdf](http://planningcommission.nic.in/plans/stateplan/upsdr/vol-2/00_1.pdf).
2. Rajangam.K., "Best laid plans: Research design and the field in a study of crafts in the Hampi region", Publisher- Intellect , Craft Research, the United Kingdom, Volume 8, Number 1,1 March 2017, pp. 9-31(23), **DOI:** [https://doi.org/10.1386/crre.8.1.9\\_1](https://doi.org/10.1386/crre.8.1.9_1).
3. Morris.W. "A Dream of John Ball." Published by- Reeves and Turner, London, Year 1888 (First Edition).
4. Chattopadhyay.K. "Indian Handian Handicrafts" Published by Allied Publishers Pvt Ltd, Bombay, India, Year 1963.
5. Giron. J. et al, "Strategy and factors for success: The Mexican Handicrafts Sector." Journal- Performance Improvement- Wiley. Published- September 2007. Vol-46, no-8. DOI- 10.1002/pfi.154, Page no: 1-16.
6. Butterworth.L."The importance and value of art, craft and design", Education Busidenss, <http://www.educationbusinessuk.net/features/importance-and-value-art-craft-and-design>, Updated in 2016, Retrieved on 01.05.2017.
7. Kikuchi. Y., "Japanese Modernization and Mingei Theory", Published by RoutledgeCurzon, 11 New Fitter Lane, London, 2004, ISBN 0-203-64419-0Master e-book ISBN.
8. Satpathy.B.B., "Socio- Political and Administrative History of Ancient India (Early time to 8 th -12th Century C.E)", DDCE/History (M.A)/SLM/Paper-XII, 2016, Publisher-Directorate of Distance and Continuing Education,2016,

- Utkal University, Bhubaneswar, Page 12-199, Source- [http://ddceutkal.ac.in/Syllabus/MA\\_history/paper-12.pdf](http://ddceutkal.ac.in/Syllabus/MA_history/paper-12.pdf).
9. Verma. D., "Madhya deshAitihāsiktathāSanskritikSinhwāvlokan", First Edition – 1955, Publisher- Bihar RashtrabhashaParishad, Patna, Source- Central Archaeological survey Of India Library, (Accn. No- 4325) Page- 80 to 187.
  10. Mehta.B., "History of Mughal Empire," Source- <http://www.importantindia.com/3025/mughal-industries/>, Updated on September,2013, Retrieved on 13.04 2017.
  11. Wailes. B., "Craft specialization and social evolution: In memory of V.Gordon Childe." Published by the University Museum of Archaeology and Anthropology University of Pennsylvania, Philadelphia. Year-1996.
  12. Alchian. A. et al. "Exchange and Production: Theory in Use". Publisher- Wadsworth Pub. Co. Year- 1969. ASIN: B0006BYQSK.
  13. Kumar. N. , "Indian Exports of Handicrafts and Global Markets: An Empirical analysis." Journal of International Economics, Vol-5, Issue-2. Jul- Dec 2014. Source: [www.http://search.ebscohost.com](http://search.ebscohost.com), Retrieved on 05.12.16.
  14. Liebl. M. et al"Handmade in India. Preliminary analysis of craft producers and craft production." Economic and Political Weekly, Vol. 38, No. 51/52 (Dec. 27, 2003 - Jan. 2, 2004), pp. 5366-5376. Source: [http://www.jstor.org/stable/4414435?seq=1#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/4414435?seq=1#page_scan_tab_contents).
  15. Carr. M. et al. "Globalization and the informal economy: How global trade and investment impact on the working poor." Published by: Women in Informal Environment: Globalizing and Organizing (WIEGO). Year- May 2001. Page: 1- 23.
  16. Mohanty. G. et al. "Orissa Review," VOL. LXIV NO- 4. Year 2007. Published by Information & Public Relations Department, Government of Orissa, Bhubaneswar. Printed at Orissa Government Press, Cuttack. Page 3-73.

#### Reference:

1. [www.historydiscussion.net/empires/mauryan-empire-administration-economic-condition-and-art-during-the-mauryan-period](http://www.historydiscussion.net/empires/mauryan-empire-administration-economic-condition-and-art-during-the-mauryan-period), updated in July 2013, Retrieved on 25<sup>th</sup> Mar 2017.
2. <https://unacademy.com/lesson/administration-economic-and-socio-cultural-life-magadha-empire-for-upsc-cse>, updated in March 2017, Retrieved on 25<sup>th</sup> March 2017.
3. <http://www.kkhsou.in/main/history/guptaseconomy.html>, updated in 2011, Retrieved on 25<sup>th</sup> March 2017.
4. <http://www.historydiscussion.net/history-of-india/system-of-administration-during-gupta-age/2243>, updated in July, 2013, Retrieved on 25<sup>th</sup> March 2017.
5. <http://www.columbia.edu/itc/mealac/pritchett/00islamlinks/ikram/part108.html>, updated in 2013, Retrieved on 13<sup>th</sup> April 2017.
6. [http://www.indianetzone.com/40/medieval\\_indian\\_crafts.htm](http://www.indianetzone.com/40/medieval_indian_crafts.htm), updated in 2015, Retrieved on 13<sup>th</sup> April 2017.
7. <http://www.columbia.edu/itc/mealac/pritchett/00islamlinks/ikram/part108.html>, updated in 2013, Retrieved on 13<sup>th</sup> April 2017.
8. <https://www.ibef.org/exports/handicrafts-industry-india.aspx>, updated in May 2017, Retrieved on 18<sup>th</sup> May 2017. Source: Export Promotion Council of Handicrafts.

#### Image Reference:

1. Fig: 3. <http://tripstoroadslesstravelled.blogspot.in/2015/11/fish-tales-etched-in->



- brass.html, Updated 29.11.2015. Retrieved on 09.06.2017.
2. Fig: 4. Kikuchi. Y., "Japanese Modernization and Mingei Theory", Published by Routledge Curzon, 11 New Fitter Lane, London, 2004, ISBN 0-203-64419-0 Master e-book ISBN.
  3. Fig: 6. [http://www.allenpires.com/article/index.php?q=mauryan\\_empire](http://www.allenpires.com/article/index.php?q=mauryan_empire). Updated on November 2016. Retrieved on 11<sup>th</sup> January 2017.
  4. Fig:8. <https://defence.pk/pdf/threads/advantages-and-disadvantages-of-knowing-english-for-india.195188/page-3>, Updated on 2012. Retrieved on 19<sup>th</sup> April 2017.
  5. Fig: 9. Sharma.R.K., "Encyclopedia of Art Archaeology and Literature in Central India". Vol-I. Published by- Aryan Books International, New Delhi, 1998. ISBN- 81-7305-125-9 (Vol-I), 81-7305-127-5 (Set), Source- Resource Centre, National Institute Of Fashion Technology, Bhopal.
  6. Fig:10. Sharma.R.K., "Encyclopedia of Art Archaeology and Literature in Central India". Vol-II. Published by- Aryan Books International, New Delhi, 1998. ISBN- 81-7305-126-7(Vol-II), 81-7305-127-5 (Set), Source- Resource Centre, National Institute Of Fashion Technology, Bhopal.
  7. Fig:11. <https://hubpages.com/education/Southern-origin-of-some-Rajput-clans>, Updated on February 2017. Retrieved on 24<sup>th</sup> April 2017.
  8. Fig: 12. [http://classicalnumismaticgallery.com / searchauctionitem.aspx?auctioncode=5&pricerange=&keyword=&category=3&material=0&lotno](http://classicalnumismaticgallery.com/searchauctionitem.aspx?auctioncode=5&pricerange=&keyword=&category=3&material=0&lotno), Classical Numismatic Gallery, Updated in May 2017, Retrieved on 26<sup>th</sup> May 2017.
  9. Fig:13. <http://www.mapsofindia.com/history/slave-dynasty.html>, Updated on April 2012, Retrieved on 11<sup>th</sup> May 2017.
  10. Fig: 14. <https://sketchindia.wordpress.com/2010/08/29/mallika-mohini/>, Updated on August 2010, Retrieved on 12<sup>th</sup> April 2017.
  11. Fig:15. <http://xaam.org/the-history-of-india-from-2800-bc-to-2016-media-4/>. Updated on May 2016. Retrieved on 22.05.2017.
  12. Fig: 16. <https://www.flickr.com/photos/tags/parchinkari/>, Photograph taken by- Anjan on January 2012. Updated on 2012. Retrieved on 27.05.2017.

**Table Reference:**

1. Table: 2. <http://www.epch.in/policies/exportsofhandicrafts.htm>, updated in 2017, Retrieved on 18<sup>th</sup> May 2017.
2. Table: 3. <http://www.epch.in/policies/exportsofhandicrafts.htm>, updated in 2017, Retrieved on 18<sup>th</sup> May 2017.

## Diel Variations of Certain Physico-Chemical Parameters in Banasidhar Talab Rewa (M.P.)

\* Indu Chaudhary

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**Abstract-** A study was conducted during the period January to December, 2015 to examine the diel variations in physico-chemical parameters viz., temperature, pH, dissolved oxygen, free carbon dioxide, carbonate and bicarbonate in Banasidhar Talab Rewa. A considerable change was noted in the above parameters with progress of the day in all the seasons. The intensity of variations was maximum during March and minimum during December. An inverse relationship was observed between carbonate and bicarbonate.

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**Keywords:** Physico-Chemical, Progress, Temperature

**Introduction:** Diurnal variations in the physico-chemical conditions of Banasidhar Talab were studied during the period January to December 2015. Ganapati<sup>1</sup>, Vass and Sachlan<sup>2</sup>, Philliposc<sup>3</sup>, George<sup>4</sup>, Verma<sup>5</sup>, Khan and Siddiqui<sup>6</sup> and Pathak<sup>7</sup> have reported diurnal changes in tropical ecosystems. Some other important contributions in this field are those of Tailing<sup>8</sup>, Dunn<sup>9</sup> and Reddy<sup>10</sup>. Most of the above studies deal with ponds and other freshwater bodies but such studies in ox-bow lakes are very few.

**Material and Methods:** Collection of water samples was made at three stations of the Talab every month from January to December, 2015 at 4 hourly intervals/ commencing from 6 h. Samples were analysed on the spot following Thingran et al.<sup>11</sup> Since there was not much variation in physicochemical parameters between the stations, average values were computed for presentation.

**Observations:** Variations in temperature, pH, dissolved oxygen, free carbon dioxide, carbonate and bicarbonate have been recorded and presented in Figs. 1 and 2.

**Water temperature:** The temperature showed an increasing trend from 6 to 14 h and thereafter it gradually decreased throughout the period of observation (Fig. 1).

**pH. :** Water pH showed gradual increase from morning 6 h reaching its peak gradually at 14 h, and thereafter, it showed a decreasing trend (Fig. 1).

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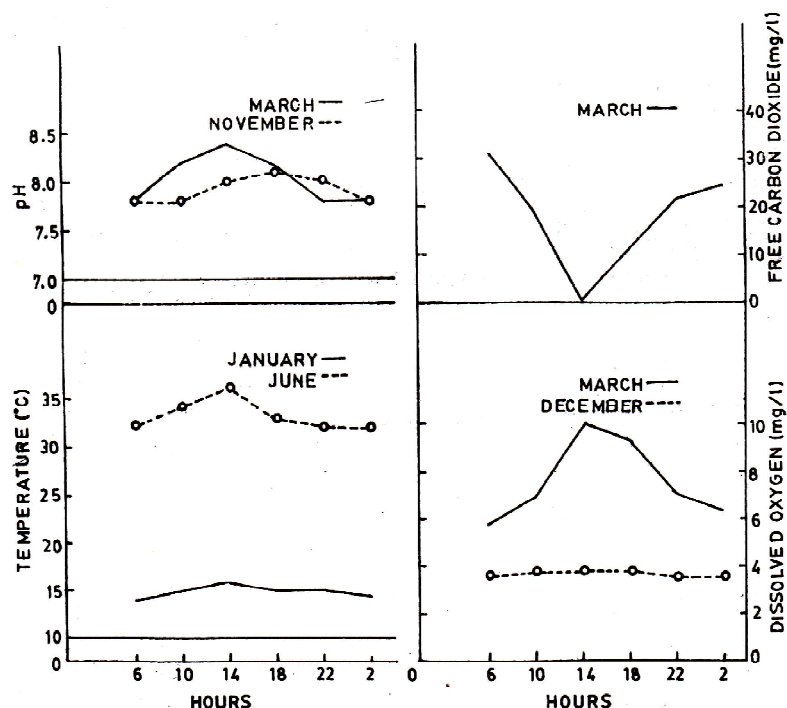


Fig. 1 : Diel variations of temperature, dissolved oxygen, pH and free carbon dioxide in Bansidhar Talab 2015.

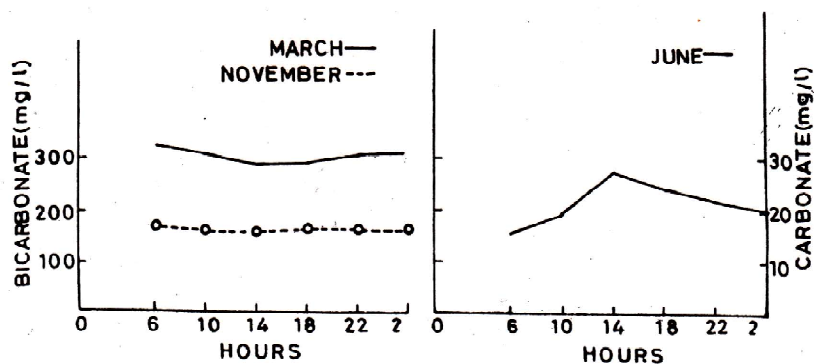


Fig. 2 Diel variations of carbonate and bicarbonate in Bansidhar Talab 2015

**Dissolved oxygen:** Beginning from the morning 6 h, there was a gradual increase in dissolved oxygen with maximum value at 14 h. This trend was observed throughout the study period. The intensity of diel oxygen change was low during the entire period of observation. Summer months (March to July) showed higher range of variation than monsoon and winter months (Fig. 1).

**Free carbon dioxide :** Free carbon dioxide was absent from May to July. Its

value was maximum during morning hours and gradual decrease was noted with the progress of the day reaching minimum at 14 h. Similar trend was noted in all the months (Fig. 1).

**Carbonate :** Carbonate was absent during January and February and from August to December.

It showed a gradual increase from morning with the progress of the day, reaching maximum at 14 h and decreased thereafter (Fig. 2).

**Bicarbonate:** Bicarbonate generally showed a gradual decrease from morning 6 h to noon 14 h, thereafter it increased to reach the maximum again at 6 h (Fig. 2).

**Discussion:** Temperature is one of the most important factors in an aquatic environment. Marked fluctuation in day and night temperature affects the solubility of dissolved gases and helps in complete mixing of the water column in shallow water bodies; Daily mixing of water results in higher productivity. In the present system no significant change in the water temperature was recorded in did variations.

The rate of two opposite processes during 24 hours of the day (photosynthetic production of O<sub>2</sub> and its consumption for respiration) regulate the diurnal cycle of chemical parameters in the water. Productive waters show high rate of diurnal change and hence the relative productivity of any water can be evaluated from its magnitude. It is clear from Figures 1 and 2 that there was a considerable change with respect to oxygen, pH, free carbon dioxide, carbonate and bicarbonate with the progress of the day in all the seasons, the intensity of variation being maximum during March and minimum during December. Various authors<sup>7-6</sup> have reported diurnal variations in tropical waters. These authors have shown that productive water bodies show sharp diurnal changes in chemical parameters whereas in low productive waters the change is not much. In water bodies infested with aquatic weeds, the photosynthetic activities are due to phytoplankton and macrophytes. The change in chemical parameters in such ecosystems reflects the combined activities of both phytoplankton and macrophytes.

Maximum change from 5.76 mg/l (6 h) to 9.22 mg/l (14 h) in March and minimum from 3.60 to 3.80 mg/l in December at the same hour of observation was noted in the oxygen values. Maximum value of oxygen at 14 h indicated that the photosynthetic activities were at their peak around the period. Carbon dioxide had shown an opposite trend to that of oxygen. The maximum decrease from 31.70 mg/l (6 h) to 6.80 mg/l (14 h) was observed in March and minimum from 10.30 to 6.40 mg/l in October at the same timings. From May to July, free carbon dioxide was absent and carbonate was present. The intensity of carbonate variation was maximum from 15.30 mg/l (6 h) to 27.30 mg/l (14 h) during June.

The bicarbonate content also showed a definite pattern of diurnal variation. Maximum variation was recorded during March from 320 mg/l (6

h) to 276 mg/l (14 h) and minimum from 161.30 to 153.30 mg/l in November at the same hour of observation.

It is clear from the above account that photosynthetic and respiratory activities were quite high in the lake which resulted in clear variation in all the above chemical parameters. During summer months, when both the activities were at their peak, the diurnal change in chemical parameters was maximum. It is important to mention here that the lake remained choked with dense aquatic vegetation throughout the year, and in such cases the diurnal change, especially in oxygen should be of a very high magnitude but this was not reflected in the present study. The probable reason for this may be that there was thick deposition of organic matter at the bottom and the consumption of oxygen for the oxidation of this organic matter was also of a high order. In fact, the production of oxygen and its consumption was more or less balanced except on some occasions (especially during summer months) when the photosynthetic production of oxygen was more than its consumption. The water body showed a wide range of variation in this parameter with the progress of the day. On the other occasions as both diurnal change in oxygen was of a low order. This was also reflected in case of other parameters. Another factor which regulated the oxygen in the lake was clumps of filamentous algae which held oxygen bubbles during photosynthetic hours and came up to the surface. During dark hours, when photosynthesis ceased the oxygen bubbles held by algal mats were slowly released into water. This process maintained the oxygen supply during night hours.

#### References :

1. Ganapati, S.V. (1955) *Hydrobiologia* **7**: 285.
2. Vass, K.F. & Sachlan, M. (1953) *Verh. Int. Ver. Limnol.* **12** : 309.
3. Phillipose, M.T. (1959) *Proc. Symp. Algal.* ICAR, New Delhi, p. 272.
4. George, M.G. (1961) *Hydrobiologia*, **18**: 265.
5. Verma, M.N. (1967) *Hydrobiologia* **30**: 129.
6. Khan, A.A. & Siddiqui, A.Q. (1970) *J. Inland Fish. Soc. India* **2**: 146.
7. Pathak, V. (1980) *Ph.D. Thesis, Ranchi University*, India.
8. Tailing, J.F. (1957) *Proc. Roy. Soc. (B)* **147** : 57.
9. Dunn, I.G. (1967) *Limnol Oceanogr.* **12**: 151.
10. Reddy, ICR. (1981) *Hydrobiologia* **85** (3) : 201.
11. Jhingran, V.G., Natarajan, A.V., Banerjee, S.M. & David, A. (1966) *Bull. Cent. Inl. Fish. Res. Inst. Barrackpore* **12**: 109.

## **Amino Acid Metabolism in The Heart of The Scorpion, *Heterometrus Fulvipes***

\* Umesh Shukla

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**Abstract-** *Scorpion heart in the accelerated state appears to avoid transamination and preserves amino acids with a simultaneous hike in glutamate dehydrogenase activity. Probable provision of energy by GDH-aminotransferase system to the altered heart work has been discussed..*

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**Keywords:** Metabolism, Scorpion, *Heterometrus Fulvipes*, Heart Rate

**Introduction:** The physiology and pharmacology of the arthropod heart (Krijgsman, 1972) more particularly the scorpion heart (Kanungo, 1977; Devarajulu Naidu, 1983) have been thoroughly studied. However, reports on energy metabolism of invertebrate hearts are limited Bass *et al.*, 1992; Jamieson & Paul Derome, 1979). Carbohydrate utilization in scorpion heart is reported (Jayaram & Padmanabha Naidu, 1998). To understand the amino acid utility and energy provision in the heart of the scorpion, the levels of total ninhydrin positive substances, (TNPS), total protein (TP) aspartate aminotransferase (AAT), alanine aminotransferase (AIAT) and glutamate dehydrogenase (GDH) are reported here.

**Material & Methods:** Details of collection and maintenance of scorpions were described earlier (Devarajulu Naidu & Padmanabha Naidu, 1985). Only adult male scorpions were used in the present investigation heart rate varies with size and sex (Padmanabha Naidu, 1986). In situ heart preparation, its maintenance, mode of acceleration ( $1 \times 10^{-5}$  Ach) and inhibition ( $1 \times 10^{-5}$  5 HT), determination of heart rate (beats/mm) and sample collection were described earlier (Jayaram & Padmanabha Naidu, 1998). All the samples were prepared between 10 & 12 hrs of a day to avoid any possible variations due—to clock connected rhythmicity in heart rate and associated enzymes (Devarajulu Naidu & Padmanabha Naidu, 1986; Jayaram *et al.*, 1998).

Free amino acid level (TNPS) was estimated by the method of Moore & Stein (1954); AAT (EC. 2.6.1.1) and AIAT (EC. 2.6.12) activities by the method of Reitman & Fraenkel (1957); GDH (EC. 1.4.1.3) activity by the method of Lee & Lardy (1965) and protein content by the method of Lowry *et al.* (1951).

**Results & Discussion:** The increase in the heart rate upon acceleration was

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29.7% and decrease upon inhibition was 28.7%, both being statistically significant (Table 1). Total protein of accelerated and inhibited hearts was not significantly different from that of normal heart indicating its noninvolvement in the metabolism of the heart.

All the samples showed preponderance of AAT over AIAT, in conformity with the earlier findings on nerve mass and pedipalpal muscle of the same species (Reddy & Selvarajan, 1975). Aminotransferases of the accelerated heart samples showed a significant decrease, which probably, is contributory to the increased amino acid concentration. The decrease in aminotransferases and increase in free amino acid pool was followed by substantial increase (223.9%) in GDH activity (Table 1). This situation reveals a primary role of GDH in sustaining higher, heart work in the scorpion.

Glutamic and aspartic acids are reported to depress the heart rate (Ramana Rao, 1974). In view of this the lowered AAT activity of accelerated heart samples yielding less glutamate gets reasonable justification in controlling the glutamate level to avoid its interference in the functioning of the heart. The simultaneous rise in GDH activity seems to take metabolic advantage by oxidatively deaminating the glutamate conferring double advantage on the system viz., controlling glutamate and regenerating  $\mu$ -ketoglutarate which augments citric acid cycle to sustain the elevated heart rate. The lowered transaminase activity upon acceleration may be further justified by a simultaneous rise in SDH activity (Jayaram & Padmanabha Naidu, 1998) which results in rapid exhaustion of  $\mu$ -ketoglutarate and thereby depriving it for transamination. Thus the scorpion heart upon acceleration seems to hold back transamination to preserve amino acids for future use and makes good use of glutamate to regenerate  $\mu$ -ketoglutaric acid for invigorating citric acid cycle.

**Table : 1 – Heart rate, levels of TP, TNPS, AAT, AIAT and GDH in different heart samples of *H. fulvipes*. Values are Mean  $\pm$  S.D. of 6 observation.**

Constituent	Normal Heart	Accelerated	% Change over normal Heart	Inhibited Heart	% Change over normal heart
Heart rate (beats/min)	62.60 $\pm$ 1.17	80.90 <sup>a</sup> $\pm$ 1.49	+ 29.71	44.00 <sup>a</sup> $\pm$ 1.18	- 28.70
TP (mg/gm wet weight)	146.38 $\pm$ 4.44	143.74 <sup>c</sup> $\pm$ 6.69	- 1.9	146.89 <sup>c</sup> $\pm$ 7.27	+ 0.07
TNPS (mg/gm wet weight)	1.56 $\pm$ 0.19	2.19 <sup>a</sup> $\pm$ 0.27	+ 32.4	1.80 <sup>c</sup> $\pm$ 0.28	- 9.10
AAT ( $\mu$ moles pyruvates formed/mg protein/hr)	8.21 $\pm$ 0.69	6.66 <sup>b</sup> $\pm$ 1.13	- 18.9	7.99 <sup>c</sup> $\pm$ 2.83	- 2.80
AIAT ( $\mu$ moles pyruvate formed/mg protein/hr)	0.25 $\pm$ 0.03	0.18 <sup>b</sup> $\pm$ 0.03	- 17.4	0.19 <sup>c</sup> $\pm$ 0.02	- 9.70
GDH ( $\mu$ moles formazan formed/mg protein/hr)	0.30 $\pm$ 0.04	$\pm$ 0.97 <sup>a</sup> $\pm$ 0.24	$\pm$ 223.9	0.23 <sup>c</sup> $\pm$ 0.07	- 21.00

**References :**

1. Bass, A., Chart, N. & Hajek, I. (1992) Comparative aspects of enzyme activity patterns of energy supply metabolism in the heart muscles of invertebrates and vertebrates. - *Physiol. Bohemoskv.*, **21**, 19-31.
2. Devarajulu Naidu, V. (1983) : Some studies on the physiology of the heart of an aiachnid, scorpion, *Heterometus fulvipes* C. Koch. Ph. D. Thesis, S. V. University, Tirupati, India.
3. Devarajulu Naidu, V. & Padmanabha Naidu, B. (1985) : Physiology of the scorpion heart : Part I-Experimental analysis of neurogenic nature of the heart beat in the scorpion, *Heterometrus fulvipes* C. Koch. - *Indian J. Exp. Biol*, **13**, 22-26.
4. Devarajulu Naidu, V. & Padmanabha Naidu, B. (1986) : Diurnal rhythmic acti. vity in the heart beat of the scorpion, *Hererometrus fulvipes* C. Koch. - *Indian J. Exp. Biol.*, **14**, 1-5.
5. Famieson, D. & Paul De Rome (1979) : Energy metabolism of the heart of the molluse, *Tapes watlingi*.- *Comp. Biochem. Physiol.*, **63B**, 399-405.
6. Fayaram, V. & Padmanabha Naidu, B. (1980) : Utilization of carbohydrates in the heart of the scorpion, *Heterometrus fulvipes* C. L, Koch.- *Proc. Ind. Acad. Sci. (Animal Sciences)* **89** (2), 109-112.
7. Jayaram, v., Chandra Sekhara Reddy, D. & Padmanabha Naidu B. (1998); Diel rhythnicity in phosphorylase activity and glycogen content in the heart muscle of the scorpion, *Heterometrus fulvipes* (C. L. Koch) . - *Experientia*, **34** (9), 1184-1185.
8. Kanungo, M.S. (1977): Cardiac physiology of the scorpion, *Palamnaeus bengalensis* C. Koch. - *Biol. Bull.*, **113**, 135-140.
9. Krijgsman, B. J. (1972) : Contractile and pacemaker mechanisms of the heart of arthropods. - *Biol. Rev.*, **27**, 320-346.
10. Lee, Y. L. & Lardy, H. A. (1965) : Influence of thyroid hormones on L-  $\mu$ -glycerophosphate dehydrogenase and other dehydrogenases in various organs of the rat. *J. Biol. Chem.*, **240**, 1427.
11. Lowry, OH., Roserough, N.J., A.L. & Randall, R. J. (1951) Protein measurement with Folin phenol reagent. - *J. Biol. Chem.*, **193**, 265-275.
12. Moori, S. & Stein, W. H. (1954): Photometric ninhydrin method for use in the Chromatography of amino acids. - *J. Biol. Chem*, **176**, 367-372.
13. Padmanabha Naidu, B. (1986) : Influence of size, sex, pH and temperature on heart beat of the scorpion, *Heterometrus fulvipes*. *Indian J. Exp. Biol.* **4**, 206-208.
14. Ramana Rio, K. V., Murali Mohan, P. & Swami, K. S. (1974) : Cardiac activity during aestivation of the snail, *Pila globosa* (Swainson). - *Curr. Sci.*, **43**, 453-454.
15. Reddy, A. S. & Selvarajan, V. R. (1975): Starvation effects on aminotransferases in. the scorpion, *Heterometrus fulvipes* – *Physiol. Zool.*, **45**, 150-156.



## Study on Dietary habits among Adolescent Girls in Rural area Etah District (U.P.)

\* Poonam Muktawat  
\*\* Ranjana Singh

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**Abstract-** *The study assessed the dietary habits of adolescent girls belonging to rural areas Etah (u.p.). A cross-sectional multistage stratified sampling was carried out on adolescents 15-19 years old in rural areas Etah (u.p.). The sample selected 234. Data were collected with a pretested questionnaire. 24hour recall method to assess dietary habits. 4 villages of eth district were selected for data collection. Nearly 80%of adolescent had consumed regular food like dal, rice, roti, vegetable etc. about 1/3adolescents were missing a meal onec or twice a week. The study findings highlight the need to the change in eating habits among adolescent girls through appropriate and timely interventions so as to prevent them from diet related health problems.*

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**Keywords:** Adolescents, Rural, Dietary Pattern, Habits, Nutrition.

**Introduction:** The word ‘adolescence’ is derived from the Latin verb ‘*adolescere*’, which means grow to maturity<sup>10</sup>. Adolescence is a grey area in the spectrum of life falling between childhood and adulthood. It is an age of transition when an individual experiences rapid growth and development, both physical and psychological and changes from being a child to an adult (Bhave,2002)<sup>2</sup>.

Unfortunately, in some countries too little attention has been given to adolescent nutrition. The result of these insufficient attentions is either insufficient or excessive diet. Adolescence is also a period when development of thereproductive system, sexual maturation, formation of identity, and gender roles set in, and issues relating to identity, gender roles, and related problems arise (Nath et al 2008)<sup>9</sup>. A study conducted by Kotecha *etal*<sup>7</sup> Regarding identification and ranking of problems among urban adolescents could identify problems broadly into the category of health and nutrition, academic, physical growth, and development (Kotecha *et al*)<sup>7</sup>. WHO identifies adolescence as the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19 years.<sup>1</sup> Today there are 1.2 billion adolescents, worldwide. Nearly 90 per cent live in developing countries. Adolescents make up about 18 % of the world’s population. More than half

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of all adolescents live in Asia. In absolute numbers, India is home to more adolescents – around 243 million – than any other country. 2 Many life style factors and poor eating habits acquired during adolescence can lead to serious diseases later in life. Healthy eating behaviour during adolescence is a fundamental prerequisite for physical growth, psychosocial development and cognitive performance, as well as for the prevention of diet-related chronic diseases in adulthood.<sup>3</sup> Meal pattern and food intake is markers for nutrient intakes and diet quality (Kerver et al., 2006)<sup>6</sup>. Nutrient intake has an influence on health and development of several chronic diseases. Meal patterns affect resting energy expenditure, body fat, bone density, serum cholesterol and many other situations (Andersson, 2000;<sup>1</sup>Chapelot, 2006;<sup>3</sup> Deutz et al 2000<sup>5</sup>). The key features of the eating patterns include snacking, skipping meal, breakfast skipping, dieting adoption of specific diets (such as vegetarian diet), confectionery, and fast food eating (Chitra, 2007;<sup>4</sup> Jenkins, 2005<sup>8</sup>).

**Material and Methods:** The study was conducted in rural areas of eath district utter Pradesh. From the census division a list of all blocks of eath district. Using simple random sampling procedure. One block selected for the purpose of detailed study.

Following steps were involved in the selection of study subjects. One-community development block (Jalesar) was selected from 8 block of the eath district by simple random sampling. Two-village of (Devkaranpur and Faridpur) were stratified in to 4 strata according to 4 directions. 234 adolescent girls were enrolled in the study, Aged 12-18 years. The study was carried out among adolescent of the selected rural areas of eath district. The questionnaire was designed to assess the dietary pattern and food habits of adolescents in which the questions were asked on the types of foods consumed in the last 24 hours (recall method) consumption of breakfast and their habit of skipping meals.

**Result and Observation:** General characteristics of study population.

Table-1 shows, in this study, the age distribution.

**General Information of rural Adolescent girl (N-234)**

Variables	No	%
Adolescent (Yrs.)	12-14 Y	115
	15-17 Y	119
Type of family	Nuclear	178
	Joint	56
Educational Status	Illiterate	132
	Literate	102
Religion	Hindu	181
	Muslim	37
	Others	16
Income/Month	Below-10,000/-	14
	10,000/-20,000	58
	20,000/-30,000	125
	30,000 Above	37

of the Adolescent girls showed that 50.9% of them belonged to the 49.1% (12-14Y) and rest belonged to the 50.1% (15-17Y) 17% girls, belonged to nuclear families. Majority of respondents were Hindu by religion, most of them (53.41%) belonged to 20,000-30,000/- month slab.

**Table-224 Hours Recall method (N-234)**  
(Various food Item consumed by Adolescent girls)

Food Item	N	%
Chapati/Puri/Parantha	221/3/10	94.45%/1.28%/4.27%
Rice	78	33.34%
Dal	197	84.18%
Milk & Its product	87	37.1%
Green Leafy Vegetable	120	51.28%
Fruits and Juice	10	4.27%
Other Vegetables	130	55.55%
Biscuits	53	22.64%
Bread/Toast/Buns	34	14.52%
Salad	29	12.39%
Egg	17	7.26%
Meat/Any	5	2.13%
Chatney / Papad/Pickles	129	55.12%
Chowmein / Burger	NIL	NIL

Table- 2 Shows the dietary pattern of these adolescent girl in the last 24 hours Most of them had consumed regular food item like, Daal, Rice, Chapati, Parantha, Puri, Vegetable include green leafy vegetables. The consumption of milk as such as was found in 37.1% of cases only 12.39% respondents take salad and 2.13% egg mostly adolescent girls liked papad/chathey etc.

**Table-3 Consumption Pattern of breakfast and missing meal.**

Dietary habit	Daily		3-4 times a week		1-2 time a week		Never		No response	
	No	%	No	%	No	%	No	%	No	%
Breakfast consumption	44	18.80	95	40.60	32	13.67	58	27.78	5	2.17
Missing Meal	0	-	49	20.94	52	22.32	126	53.84	7	2.91

Table 3 shows only 18.80% respondents had their breakfast, daily whereas, 40.60% respondents had breakfast 3-4 times a week. 24.8% respondents never had breakfast. In this study, nearly 53.8% respondents had habit never missing meals. They had taking regular meals, but 20.9% respondents skipping a meal 3-4 times a week.

### Discussion:

The present study was conducted to have on overview of the eating pattern of the school going adolescent girls. A study on the diet quality and nutritional status of rural adolescent girls. In this study assessed that girls have good food habits but they do not take nutritious food. Their main staple

food is Roti, Dal, Rice, SabjiSalad, Egg, Meat, Fruit, and Juice like more nutritious food item are not part of their food diet. Due to rural area they do not have easier access to fast foods.

Regarding the consumption of essential amino acid rich food items like milk and egg, the preparation of those consuming them was quit less as compared to that reported in other studies conducted in Baroda, Barabanki and Bangladesh (12,16). However the finding were favorable as compared to the findings of (Kotecha et.al.)<sup>8</sup> as the present study 53.84% of the girls never missed their meals, However the daily consumption of breakfast by about 18.80% and 24.78% never consumption of breakfast.

The present study has done limitation, study was only assess the eating habits only, no intake of nutrition's as per recommended dietary allowance was done.

### **Conclusion:**

The finding of the study reveals the rising craze of the adolescent girls. The emphasizes the need to create awareness among their nutritional intake and healthy foods of upcoming young generation and harms of such types of food on the health.

### **References :**

1. Andersson I, Lennernas M and Rossner S (2000). Meal pattern and risk factor evaluation in one-year completers of a weight reduction program for obese men - the 'Gustaf' study. *Journal of Internal Medicine* 247 30-8.
2. Bhavé SY, Nair MKC. Course manual for adolescent health. Part-II: Indian perspective. In: Bhavé SY, editor. *Adolescent health*. New Delhi: Indian Academy of Pediatrics; 2002. pp. 7–11.
3. Chapelot D, Marmonier C, Aubert R, Allegre C, Gausseres N, Fantino M and Louis-Sylvestre J (2006). Consequence of omitting or adding a meal in man on body composition, food intake, and metabolism. *Obesity* 14 215-27.
4. Chitra URC (2007). The role of breakfast in nutrient intake of urban schoolchildren. *Public Health Nutrition* 10(1) 55-58
5. Deutz RBD, Martin D and Cody MM (2000). Relationship between energy deficits and body composition in elite female gymnasts and runners. *Medicine and Science in Sports and Exercise* 32 659-68.
6. Kerver JM, Yang EJ, Obayashi S, Bianchi L and Song WO (2006). Meal and snack patterns are associated with dietary intake of energy and nutrients in US adults. *Journal of the American Dietetic Association* 106(1) 46-53.
7. Kotecha PV, Patel S, Mazumdar VS, Baxi RK, Misra S, Mehta KG, et al. Identification and ranking of problems perceived among urban school going adolescents in Vadodara in India. *Indian J ClinPract*. 2011;21:555–65.
8. Jenkins SHS (2005). Barriers that influence eating behaviors in adolescents. *Journal of Pediatric Nursing* 20(4) 258-267
9. Nath A, Garg S. Adolescent friendly health services in India: a need of the hour. *Indian J Med Sci*. 2008;62:465–72. [PubMed]
10. WHO. Adolescent health. Adolescent development [Internet]. [cited 2015 Nov 26]. Available from: [http://www.who.int/maternal\\_child\\_adolescent/topics/adolescence/dev/en/](http://www.who.int/maternal_child_adolescent/topics/adolescence/dev/en/).

## **Physico-Chemical analysis of water quality in Bansidhar talab, Belwa-Paikan, Rewa(M.P.)**

**\* Girijesh Shukla**

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**Abstract-** *Water is a prime natural resource for lives in the earth. The water is found in the earth into two ways - surface and subsurface water. The major source of surface water is rainwater. Surface water is available on rivers, reservoirs, ponds, lakes and puddles. The world's total water resources are estimated at  $1.37 \times 10^8$  million ha-m of these global water resources about 97.2% is salt water (mainly in oceans) and only 2.8% is available as fresh water at any time on the planet earth. Hydro biological studies of freshwater resources in Indian sub continent have been under taken by different works. Ahamed and Krishnamurthy (1990), Kadam (1990), Chakrabarti and Jana (1991), Prasad et al. (1993), Peter, S. (1993), Pandian (1993), Verma and Mohanti (1995), Boyed and Tucker (1998), Moss (1998), Singh (1999), Clare and Jiri (1999), Robinson (1999), Asimippi Park (2000), Thorrr and Allen (2001), Pandey (2001), Mishra A. (2002). For Successful fish farming in reservoirs, it is essential to make a detailed hydrological study of the water body.*

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**Keywords: Physico-Chemical, Water Quality, Natural Resource**

Bansidhar talab is located on left side of NH. 7 distance of 150 meters in east direction from district Rewa, is located on 26 Kms. Away from Rewa city (M.P.). It comes under village Belwa paikan of sirmaur tehsils. This talab is being used for bathing by human being, Bathing of cattles and animals, cloth washing, utensil cleaning, excretion by human beings at the bank, excretion by animal at the bank, drinking water by human beings, drinking water by animals, mouth washing, food grain washing, water take for domestic use. This is high time to monitor these pre existed pond so that they can be used in commercial fish culture. Keeping this view in mind the hydrobiological study was performed and all parameters were studied according to APHA 2003.

**Aim of the study:** The aim of this Study is to Physico-Chemical study of water quality of Banshidhar Talab of Belwa-Paikan of Rewa District Madhya Pradesh. Present study undertaken to assess the water quality of Banshidhar Talab by observing different Physico-Chemical parameters like temperature, pH, D.O., mg, cl, ammoniacal nitrogen, nitrogen as nitrate, dissolved CO<sub>2</sub>,

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Phosphate, chloride, during January 2015 to December 2015.

## RESULT AND DISCUSSION

### PHYSICO – CHEMICAL CHARACTERISTICS OF BANSIDHAR TALAB DURING 2015

Parameters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°C)	15.9	20.85	23.43	28.93	32.60	30.18	29.65	27.25	30.0	30.75	24.65	20.75
pH	7.4	7.6	7.6	7.8	7.9	8.6	8.0	7.9	7.7	7.7	7.7	7.5
D.o	17.19	16.29	14.12	13.82	14.34	3.54	4.20	5.20	6.20	6.85	9.75	11.0
Mg	6.55	9.45	14.82	18.22	21.42	23.5	9.35	11.20	10.40	9.82	8.22	7.95
Cl	46.40	46.40	44.60	42.40	40.20	45.40	25.60	26.40	28.20	32.60	42.80	46.80
Ammoniacal	0.25	0.32	0.39	0.46	0.51	0.56	0.48	0.42	0.37	0.31	0.25	0.19
Nitrogen	0.05	0.030	0.020	0.20	0.018	0.03	0.04	0.04	0.05	0.049	0.057	0.053
Nitrogen as	2.84	2.74	2.71	2.64	2.52	1.94	1.67	1.77	1.86	1.97	2.22	2.47
nitrate	0.30	0.28	0.22	0.20	0.15	0.12	0.09	0.14	0.23	0.29	0.36	0.34
Dissolved Co <sub>2</sub>	19.2	20.2	21.0	20.86	21.1	21.40	22.16	21.86	20.97	20.67	19.7	18.40
Phosphate												
Chloride												

#### All Values are in PPm except pH and temperature.

The color of the water has also been studied at the time of sampling. It was light green during all the seasons due to rich phytoplankton.

The temperature data of the water of the tank showed that it remained below 25°C from November to March. In the month of April, July, August and September it generally fluctuates between 25°C to 30°C and during rest of the year i.e. may and June it was recorded between 30°C to 32°C. The Maximum temperature of 32.6°C was recorded in May and the minimum of 15.9 in January. In present study, It is found that during summer water temperature was higher because of low water level, clear atmosphere and greater insulation from the sun. Lower water temperature in the rains can be explained on the basis of frequent clouds, high percentage of humidity low atmospheric temperature, high current velocity, and high water level. Apart from these, temperature plays a very important role in some physiological process, like release of stimuli for breeding mechanisms in fish both under natural and artificial conditions (Hora, 1962; Chaudhri, 1979).

The most important chemical factors influencing fish production are dissolved gases, like – Oxygen, Carbon-dioxide, pH, calcium, magnesium Total hardness or chlorides, An attempt has been made to find out a correlation between these factors and fish production.

Oxygen is essential for all metabolic activities of all aquatic organisms that possess aerobic respiratory biochemistry Ojha, J. Singh, N.K. and Ghose, T.K. (1988).

Baruah, B.K. (1998) has grouped the ponds into three categories, according to the range of dissolved oxygen as between 3.00-5.00, 5.00-7.00 and above 7.00. According to him ponds with a range of 3.0-5.0 PPm. Dissolved oxygen, are unproductive and ponds with a range of 5.00-7.00 PPm, dissolved oxygen are of average production, whereas ponds with more than 7.7.PPm. Dissolved oxygen are productive.

In the present study it was noticed that dissolved oxygen ranges from a minimum value of 3.54 PPM to maximum value of 3.54 PPM to maximum value of 17.19 PPM minimum value of dissolved oxygen is generally seen during rainy season and summer season whereas maximum value during winter. The cause for low concentration of oxygen during summer and rainy season may perhaps be due to high temperature and turbidity of water increased depth and cloudy atmosphere. These factors are not present in winter season, hence the concentration of dissolved oxygen might have increased during winter. Badge and Verma (1985) have also mentioned the same factors responsible for the low or high concentration of dissolved oxygen.

It is found that the effect of this low oxygen alone does not cause any adverse consequence except that the fish from slight distress during this period and comes to the surface for respiration. By the study of oxygen concentration in water of Bansidhar talab at Belwa Paikan, Rewa it is seen that concentration of dissolved oxygen around 7 PPM in only of two months whereas during the rest of the year it is above 7 PPM. This is good sign of productivity. The oxygen content of water shows sufficient correlation with fish production of the tank.

The carbonate-bicarbonate system in natural water is a part of the carbon cycle of the biosphere carbon dioxide from carbonic acid by dissolving in water, which forms  $H^+$  and  $HCO_3^-$  ions by dissociation. The resultant  $HCO_3^-$  provide for  $CO_2$  photosynthesis.  $CO_2$  is also released by animals within the pond by respiration some  $CO_2$  is converted into bicarbonate whereas some is utilized by macro and micro flora for photosynthesis.  $HCO_3^-$  ions may be assimilated by some algae and aquatic plants, in the period of low supply of  $CO_2$  in the atmosphere. (Hutchinson, 1957 and Golterman, 1969).

The water of Bansidhar Talab at Belwa-paikan. Rewa shows well marked seasonal fluctuations of dissolved carbon dioxide. It is lowest PPM in july (1.67) and highest 2.84 PPM in January. The high concentration of  $CO_2$  during rains may be due to the decomposition of the organic matter brought by the inflowing rain water and the absence of the photosynthetic utilization of  $CO_2$  by the biomass. This shows that there is an inverse relationship between carbon dioxide and oxygen contents of the tank water, as reported by Gautam (2002) and Jayram, Kc(1988) but Munawar (1995) pound direct correlation of Talab of Rewa water shows highly significant value both at 1% and 5% level with fish production ( $r = 0.248$ )

This dissolved  $CO_2$  makes carbonate – carbonic acid mixtures, prevent major fluctuations in the alternation of pH of Pond waters and create relatively more stable conditions for substances of animals and plant life. These mixture of weaker acids and their salts are called buffers. Whether a water is strongly or poorly buffered, depends upon its bicarbonate content. Since most of the organisms thrive and proliferate in alkaline water, though several live in acidic condition of organic communities. Thus in rainy seasons when there is plenty

of  $\text{CO}_2$  in water may be cause of reproduction of fishes in the pond.

According to Hossain & Kumar (1990) the pH of natural water is governed by the interaction of  $\text{H}^+$  ions, resulting from the hydrolysed bicarbonates. The range of pH, found in natural waters varies between 2 to 12. Their measurement involves the activity of hydrogen ion but not the concentration. Bhargava (1985) remarks that weak alkaline water (pH 7.0 to 8.0) has been found in most productive fish ponds and the ponds with highly acidic waters are distinctly undesirable. Prasad (1916) has studied 10 ponds of Punjab. He concluded by his observations that both highly acidic and highly alkaline waters are unfavorable for good production. The alkaline water is relatively preferable. Water with an almost neutral reaction with pH (6.5 to 7.5) is best suited for a fish pond and average production is expected in the range of 7.5 to 8.5.

In the present study no significant variations in pH have been observed. The pH ranges from 7.4 to 8.6. The maximum pH was recorded in the month of June and July. While minimum in December and January. It may be due to high minimum in December and January. It may be due to high buffering capacity of tank (Ganapati 1960, Singh and Saha (1989)). As per Banerjee (1967) differentiation the tank should also be categorised as an average pond, because its water is moderately alkaline, having a pH range of 7.3 to 8.6. The pH of the tank water shows highly significant value fish production, both at 1% and 5% level ( $r = 0.358$ ).

The total calcium and magnesium form the temporary hardness of water (NEERI 1986). Being essential elements for algal plants, the high concentration of these elements affect directly on productivity Manna & Jana (1990). In the present study the variability of calcium and magnesium of water have been recorded in different seasons. There is marked seasonal fluctuation in their concentrations. The concentrations of calcium is highest in winter months while lowest in rainy season. According to Ghosh and Munshi (1987), It is maximum in June and minimum in October in Kutumsar cave water. This difference of calcium concentration might be due to permanent stored water received by the inflowing calcium containing contents in rainy season.

In the present study the calcium concentration shows positive correlation with transparency and oxygen concentration. While negative correlation has been indicated with carbon dioxide – This result has also been supported by the finding of Nayak (1980). The calcium also shows negative correlation with fish production of the tank ( $r = 0.387$ ).

The magnesium shows its minimum and maximum values as 6.55 PPM. And 23.50 PPM in January and June respectively. There is a negative correlation between fish production and mg content of the water ( $r = 0.377$ ).

In general calcareous water alkalinities of more than 50 PPM are more productive. Fish waters with an alkalinity of less than 10 PPM rarely produce large crops. Water intermediate between these two groups may produce useful



results. Wotton (1990) Parker (2001) from a study of a large number of lakes and ponds in Minnesota, gives the range of total alkalinity as 0.0 – 20.0 for low production 20.0 – 40.0 for low to median and 40.0 – 90.0 PPM for medium to high production. All the ponds above 90.0 PPM. of total alkalinity have been found to be productive. Banerjee (1967) has found that an alkalinity below 20 PPM. was definitely indicative of low production but the influence of alkalinity in the range 20 to 50 PPM was not in any way significant, when compared to the other higher ranges as observed by Parker (2001) . It was noticed by Banerjee (1967) that four ranges 20-50, 50-100, 100-200 and above 200, 60-70% of the ponds were highly productive or of averages production. This shows that above 20 PPM. total alkalinity cannot work as a limiting factor. Its influence is probably observed by other more important limiting factors such as dissolved phosphorus and nitrogen.

From the limits given by Banerjee, it becomes clear that in respect of alkalinity of water, the Bansidhar Talab at Belwa-Paikan, Rewa falls in the range of average productive pond.

In dissolved nutrients of water nitrogen has been widely studied and its role and importance in aquatic productivity is well recognised. Singh and Sharma (1999) Singh and Pandey (1990). Abbasi And Bhatia (1997) have also shown that it plays an important role in the eutrophication of lakes. Being a constituent of protein, nitrogen occupies a highly important place in aquatic ecosystem. By the laboratory equipment Adoni (1985) concluded that nitrogen naturally occurs in quantities far below the upper limit for optimal growth of plankton and often do not reach lower optimal concentration. The optimal limit of nitrogen being given by him is 0.3 to 1.3. These however may not be applicable to natural condition.

Nitrogen has been studied in the form of ammonia and nitrate. Ammonia arises by the decomposition of organic matter and by the excretion of aquatic animals. Nitrogen formed by excretion is minor in comparison to that formed by decomposition (Wetzel, 1983). Banerji (1967) sampled 80 ponds and he came to the conclusion that dissolved nitrogen below 0.1 PPM. shows unproductive condition, while in the range 0.1 – 0.2 PPM an average productive condition whereas above 0.2 PPM considered to be productive condition. In the present findings, nitrogen in the form of ammonia has its minimum value of 0.19 in December and maximum value of 0.56 PPM in the month of June. Nitrogen compound in the form of nitrates shows its lowest value in the month of May as 0.018 PPM and highest value in November as 0.057 PPM. The maximum value of ammonia in June may be considered due to the increased rate of production (especially for fish) and higher rates of excretory products. Nitrogen in the form of nitrate is found in very less quantity in this study. By putting these values in limits given by Banerjee (1967) it can be concluded the Bansidhar Talab At Rewa water comes in low productive range. The nitrogen deficiency may be considered due to the absence of modulated plants

and nitrogen fixing bacteria in the pond soil and the absence of decomposing reaction of organic matter. At the same time the value of  $\text{NH}_3$  shows good sign of productivity of the tank. Nitrogen in the form of ammonia showed significant value, both at 1% level and 5% level with fish production ( $r = 0.213$ )

Phosphorus is the most critical single element for the maintenance of aquatic productivity. Moyle (1946) made the phosphorus fertility range as –

1. 0.00 – 0.02 PPm low
2. 0.02 – 0.05 PPm low
3. 0.05 – 0.10 PPm low
4. 0.10 – 0.20 PPm

Very good and above 0.2 PPm. excessive. Trivedi's Goel (1984) found production of fish in the ponds having phosphorus concentration 0.02 - 0.05 PPm, while for the other ranges all ponds were almost equally productive. Banerjee (1967) from a study of large number of ponds concluded that dissolved phosphorus below 0.05 PPm may be considered in sufficient, while for the range 0.05 – 0.20 PPm medium to high production is expected. High productive fish ponds should have phosphorus concentration above 0.20 PPm. Trivedy and Goel (1984) has expressed dissolved phosphate as PPm of phosphorus, and Banerjee (1967) expressed it as PPm of  $\text{P}_2\text{O}_5$ .

Phosphorus is considered to be the limiting factors for the productivity of the lake Mishra, Das, Kar and Das (1997), but many scientists are in the favour of nitrogen as limiting factor. During the present study the amount of phosphate has been observed maximum in winter months (January 0.36), decreasing trend is summer months and has its minimum value in rainy season (July 0.9 PPm), Table – 10). Thus Bansidhar Talab of Rewa falls in productive range in accordance with phosphorus, but has no significant value with fish production. ( $r = 0.1$ ) i.e. the amount is insufficient for fish production. Moss (1998), Nasar and Nayak (1980) have also recorded similar results in their study, but Choudhary et al. (1979) found maximum value of phosphorus in summer, during the study of Hirakud Dam. Major inorganic anion chloride is found in natural water in an enormous quantity. According to Wetzel (1983) though it is distributed widely in nature, but it is not essential element for metabolic activities of the organisms.

In this study monthly variation of chloride contents has been observed which are negligible. The minimum value was observed during summer, touching its maximum limits during rainy season (July 22.16 PPm) But totally reverse condition was reported by Nayak (1980) from the study of Dahlan Pal of Panna. He reported the maximum value of chloride contents in winter season and June, while minimum in rainy season. It has highly significant effect on fish production ( $r = 0.7$ ). Singh (1988), Sarkar and Raj (1964) and Sreenivasan (1964 a,b, 1967a, b, 1969, 1976) reported that the high concentration of chloride contents denotes pollution, whereas low concentration

shows purity of water. According to this report, It can be said that the tank water is comparatively pure.

**Conclusion:** He study revealed that there were variation in certain Physico-Chemical properties of water of Banshidhar Talab, Belwa-Paikan, Rewa, (M.P.). Due to the surface run of other expressive human activities these results were compared with the standard values prescribed by the Bureau of Indian Standard (BIS) and World Health Organisation (WHO) expect turbidity all the the other Physico-Chemical characteristics were found with permissible therefore the present investigation based on scientific methodology clearly shows that the said pond water can be easily used for drinking and cooking purpose after proper treatment.

#### References :

1. Parsad, B, (1916). The seasonal conditions governing the Punjab. J. Asiatic SOC. Bengal, 12 : 142 – 145.
2. Anderson, R.O., (1956). Seasonal abundance and production of littoral Fauna in a Southern Michigan lake. Trans. Am. Microse, Soc. 75 : 259 – 270.
3. Hutchinson, G.E. (1957). A Treatise on limnology VOL. I (New York) : John Wiley and Sons Inc.)
4. Ganapati, S.V. (1960). Ecology of Tropical waters. Proc. Symp. Algology ICAR New Delhi. PP. 204-218.
5. Hora, S.L. (1962) Handbook on fish culture in the Indo Pacific region, FAO Fish, Bid. Tech. PaP. (14).204.
6. Sarkar, H.L. and Rai, H. (1964). The Limnology of the Suraj Kund, India. Physico – Chemical Conditions and Plankton. Trans. Amer. Micr. Soc. 83 : 260-266.
7. Sreenivasan, A. (1964a, b, 1967 a, b, 1969, 1976), Limnological studies and fish yield in three upland lakes of Madras state, India, Limnol. Oceanogr 9(4) : 564-75.
8. Banerjee, S.M. (1967). Water quality and soil condition of fish ponds in some states of India in relation to fish production Indian J. Fish 14 (1-2) : 115-144.
9. Golterman, H.L. (1969) Methods for Chemical analysis of fresh waters, I.B.P. Handbook No. 8. Blackwell Scientific publ. Oxford. 172p.
10. Bhatnagar, G.P. and Sharma, (1977). Primary organic production by phytoplankton community in relation to environmental factors in the sewage polluted lower lake Bhopal. All India Symp. on Envir Biol. Kerala.
11. Chaudhary, N.K (1979) Certain physico – Chemical factors and phytoplankton on Hirakud dam. Geobios 6 : 104-106.
12. Nayak, T.R. (1980). Hydrobiology of Dahlan Tal, Panna Ph.D. Thesis. A.P.S. University. Rewa (M.P)
13. Wetzel, R.G. (193), Limnology, Saunders College publishing London PP. 767.
14. Trivedy, R.K. and Goel, P.K. (1984). Chemical and Biological methods for water pollution studies. Env. Plabl. Karad.
15. Adoni, A.D (1985), Work on limnology Indian MAB committee, Department of Environment. Govt. of India, 216 p.
16. Bhargava, D.S. (1985). Variation in quality in the Ganges, effluent and wat. Freat. J. 25 (2), PP. 61-65.

17. Bagde, U.S. and Verma, A.K. (1985). Physico – Chemical characteristics of water of J.N.U. lake at New Delhi. *Indian J. Ecol.* 12(1) : PP. 151 – 156.
18. NEERI (1986). Manual on water and Wastewater analysis. National environmental Engineering research Institute, Nehru marg Nagpur India PP, 340.
19. Ghosh, T.K. and Munshi, J.S.D. (1987), Bimodal Oxygen uptake in relation to body weight and seasonal temperature of an air breathing climbing perch, *Anabas testudineus* (Bloch). *Zool. Beitr.* 31 : 357 – 364.
20. Ojha, J. Singh, N.K. and Ghosh, T.K (1988). Bimodal oxygen uptake in relation to body weight in a freshwater air breathing fish, *colisa* (=Trichogaster) *fasciatus* (Bloch and Schneider), *Arch. Hydrobiol.* III : 475-480.
21. Jayram K.C (1988). The freshwater fishes of India, Pakistan, Bangladesh, Burma and Sri lanka – a handbook. Zoological survey of India, Calcutta.
22. Singh, H.R. (1988). Ganga project pollution study of upper Ganga and its tributaries. *Joshard* 11 and 12 PP. 149-151.
23. Manna, G.K. and Jana B.B. (1990). Impact of Environment on Animals and culture. Kalyani University Kalyani India 333 PP.
24. Wotton (1990). Ecology of Teleost Fishes. London, New York: Chapman and Hall. PP. 404.
25. Singh, U.N. and pandey. S (1990). Water quality of polluted water bodies of North Bihar. *Environment and Ecology* 8(1) : 306-310.
26. Hossain, Konar (1990). Effects of water pH on growth and production of Fish in the parol pond, West dinajpur, West Bengal. *Environment and ecology*, 8(4) : 1299-1301.
27. Kadam (1990). Environmental Study of lake Rankala, Jayanti Nala and Lake Koti Tirth from Kolhapur city. *Enviro and Ecd.*, 8(1) : 95-97.
28. Manna, G.K. (1990), Impact of Environment on Animals and culture Kalyani Univ. Kalyani India 333 PP
29. Singh, T.P. and Sinha. Neelima (1993). Diagnostic indices for aquatic pollution impact assessment: Controversies and need Advances in fish research, Vol. 1, PP. 381-386. E.d. B.R. Singh
30. Munawar, M.et al. (1995). Aquatic ecosystem of china. Environmental and Toxicological Assessment. SPB Acad. Pub. Ni. D. Dist. Balogh.
31. Abbasi, S.A. and Bhatia, K.K.S. (1997). The ecology of rare high altitude natural lake of Kerala Pookot. *Ecol. Env. And Cons.*, 3(1) : 1-13.
32. Mishra, P.C, Dash, M.C., Kar and Das, R.C. (1997). Limnological Studies in Hirakud Reservoir : Physico – Chemical Characteristics, Plankton Density and Diversity and Research by M.P. Sinha Vol. 1. 8. : 51 – 36.
33. Singh, V.K. and Sharma, A.P. (1999). Hydro biological characteristics and primary production in fish pond manured with different organic manures. *Indian. J. fish*, 46(1) : 79-85.
34. Baruah; B.K. (1998) water quality of ponds in chandrapur area of kamrup district, Assam. *Env. Ecol.* Vol. 16(2) : 254-256
35. Singh, V.K. and Sharma, A.P. (1999). Hydrobiological characteristics and primary production in fish pond manured with different organic manures. *Indian. J. Fish*, 46 (1) : 79 – 58.
36. Singh, S.P. (1999) Assessment of water quality by using bioindicator invertebrates. *Eco development and environment*. Vindra pub. Jalgaon. PP. 187-192.

37. Chernoff, Barry (2000), Aquatic ecosystem upper rio orthon basin (Rapid assessment program working papers Vol. 15) 146p.U.ch.pr.
38. Parker, steve (2001). Ponds and river (Dorling Kindersley eyewitness BKs) (J) Lib. Bdg. Fitzgerald.
39. Gautam, R.V. (2002). Studies on Feeding ecology and habitat utilization of common Indian langurs of Satna Thesis, A.P.S.U. Rewa (M.P.)
40. Choudhary P. Dhakad NK, Jain R. 2014. Studies on the Physico-Chemical Parametres of Bilwali Tank, Indore (M.P.) India. IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JeSTFT). 8(1): 37-40
41. Thirupathaiah M, Samatha CH, Chintha S. 2012. Analysis of water quality using Physico-Chemical parametres in lower manair reservior of karimnagar district, Andhra Pradesh. International Journal of Environmental sciences 3(1): 172-180

## **Pharmacological aspects of *Cymbopogon citratus* Stapf.**

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**Abstract-** Medicinal plants have curative properties due to presence of some bio-active compound which are found as secondary metabolites in different parts of plants. Alkaloids, glycosides, corticosteroids, essential oils etc. are plant metabolites. *Cymbopogon citratus* Stapf. belongs to family Poaceae. Common names of *Cymbopogon citratus* Stapf. are lemon grass, silky heads, citronella grass,, fever grass or oil grass. It is cultivated as culinary and medicinal herbs because of lemons like scent. *Cymbopogon citratus* Stapf is used for the production of citronella oil which is used in soaps, as an insect repellent. Its oil has been used in the treatment of various diseases like cough, cold, rheumatism, lumbago, digestive problems and leprosy. The lemon grass contains high percentage of vitamin C. Lemongrass oil also used as a pesticide and preservative.

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**Key word - Medicinal plant, secondary metabolites, Diseases and *Cymbopogon citratus* Stapf.**

**Introduction:** Pharmacological aspects of any medicinal plants have proved a good source of information for searching new phytochemicals to be used as potential drugs. According to WHO, medicinal plants are source of drugs, more than 80 percent of world population depend on medicinal plants (Shinwari and Khan, 1998). In the Indian traditional medicinal system, more than 7500 plant species have been documented with ethnomedicines (Gautam et al., 2007). The medicinal value of any medicinal plants lies in some bioactive compounds which are the basis of some pharmaceuticals company (Farombi, 2003; R'ýos et al., 2005; Reynolds et al., 1996., Lis- Balchin 1997). A continuous search and development of new medicine from medicinal plants is needed. Some important ethnomedicinal plants are documented by some scientist (Kala, 2005; Siemonsma, 1994; Fairbrain, 1980., Prajapati et al., 2003; Rawat and Vashistha, 2011).

Field survey, data collection and documentation about medicinal values of plants are basic requirement to understand the pharmacological aspects and biodiversity pattern in natural ecosystem (Prajapati et al., 2003; Rawat and Vashistha, 2011). Over the years, human activities are continuing modify

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the natural habitat and ecosystem. So it is important to document pharmacological aspects of medicinal plants.

*Cymbopogon citratus* Stapf. is also known as citronella grass, lemon grass or oil grass. It belongs to family of Poaceae. *Cymbopogon citratus* Stapf. is mostly planted in home gardens to repel some insects. *Cymbopogon* is perennial aromatic grasses with often coarse leaves and frequently much compound and contracted spatheate panicles (Baby et al., 2007). Spikes usually short, on a common peduncle supported by a spatheole. Grains are oblong, subterete or planoconvex.

#### **Materials and Methods:**

Selected plant *Cymbopogon citratus* Stapf. have been collected from college campus. Plant was identified by plant taxonomist. Pharmacological aspects of *Cymbopogon citratus* has been documented with the help of relevant floras, book chapters and published literature (Raizada, 1976; Kanjilal, 1979; Collet, 1980; Raizada and Saxena, 1984; Singh and Anand, 2002; Adhikari et al., 2010; Rajendran et al., 2014).

#### **Results and Discussion:**

Pharmacological aspects of *Cymbopogon citratus* Stapf. have been documented through relevant floras, book, questionnaire and discussion with local practitioners and vaidhyas. Information of ethnomedicinal values of *Cymbopogon citratus* Stapf. was collected concerning the different parts used, used in treatment of various diseases.

#### ***Cymbopogon citratus* Stapf.:**

The different parts of *Cymbopogon citratus* Stapf. (Figure-1) has been used in treating various human ailments like cough, cold, rheumatism, digestive problems and leprosy (Leite et al; 1986; Wright et al., 2009; Bastos et al., 2010). It is used as medicine by the India folks. *Cymbopogon citratus* Stapf is important for treatment of a large number of human diseases. In India it is used as stimulant, sudorific, antiperiodic, and anticatarrhal.

The leaf of *Cymbopogon citratus* Stapf is used for extraction of essential oil which is used as depressant, analgesic, antibacterial, and antifungal agent (Figueirinha et al., 2010; Sunita et al., 2008). Extracted oil is useful in effective treatment of human ailments particularly cough, cold, rheumatism, digestive problems and leprosy. Essential oil has been found to possess antibacterial and antifungal properties. Extracts of *Cymbopogon citratus* Stapf have been found to show analgesic and antipyretic properties. It is an oral anti tumor drug for the cancer. The lemon grass contains high percentage of Vitamin C.

*C. citratus* is used as a medical plant and as perfumes in India. *C. citratus* is consumed as a tea for anxiety in some country. It can be dried, powdered, or used fresh. It is used as mouth wash for the toothache and swollen gums. Its oil is used as a "lure" to attract honey bees.

Lemon grass oil contains different phytochemical like citral, myrcene,

geraniol and citronellol . Lemon grass oil can be separated by different process such as hydrosteam distillation, condensation, and cooling. The hydrosol, as a by-product of the distillation process, is used for the production of skin care products such as lotions and facial cleansers.



**Fig 1-*Cymbopogon citratus* Stapf**

### **Conclusion:**

*Cymbopogon citratus* Stapf. is medicinal plant. It is commonly known as lemon grass or oil grass. It is used in various traditional medicine. Local knowledgeable person uses different parts of plant in various ailments. In the present article, pharmacological values of *Cymbopogon citratus* Stapf. are recorded . Lemon grass has curative properties due to presence of secondary metabolites. The essential oil of leaf is used as depressant, antipyretic, antibacterial, and antifungal agent. Essential oil has been used to cure various human ailments like cough, cold, digestive problems and leprosy. The lemon grass is good source of Vitamin C. Some skin creams , lotions and facial cleansers are prepared by lemon grass..

### **References :**

1. Adhikari BS, Babu MM, Saklani PL, Rawat GS (2010). Medicinal plants diversity and their conservation status in Wildlife Institute of India (WII) campus, Dehradun. *Ethnobotanical Leaflets*. 14(1):46-83.
2. Baby P. Skaria; P.P. Joy; Samuel Mathew; Gracy Mathew; Ancy Joseph; Ragina Joseph (2007). *Aromatic Plants. 1. New Delhi, India: New India Publishing Agency. p. 103.*
3. Bastos JF, Moreira IJ, Ribeiro TP, Medeiros IA, Antonioli AR, De Sousa DP, Santos MR. (2010). "Hypotensive and vasorelaxant effects of citronellol, a monoterpene alcohol, in rats". *Basic & Clinical Pharmacology & Toxicology*. 106 (4): 331–337.
4. Collet H (1980). *Flora Simlensis: A Handbook of the Flowering plants of Shimla*



- and the Neighborhood. Bishan singh and Mahendra pal singh, Dehradun.
5. Fairbrain J.W.(1980). Perspective in research on active principles of traditional herbal medicines. A botanical approach: identification and supply of herbs, *J. Ethnopharmacol* 2:99-106.
  6. Farombi EO., 2003. African indigenous plant with chemotherapeutic potential and bio-technological approval to the production of bioactive prophylactic agent. *Afr Biotech* . 2: 662-667.
  7. Figueirinha A. Cruz MT. Francisco V. Lopes MC. Batista MT. (2010). "Anti-inflammatory activity of *Cymbopogon citratus* leaf infusion in lipopolysaccharide-stimulated dendritic cells: contribution of the polyphenols". *Journal of Medicinal Food*. **13** (3): 681–690.
  8. Gautam R, Saklani A and Jachak SM. 2007. Indian medicinal plants as a source of antimycobacterial agents. *Journal of Ethnopharmacology*, 110: 200-234.
  9. Kala C P (2005). Ethnomedicinal botany of the Apatani in Eastern Himalayan region of India. *J. ethno and Ethnomed*, 1: 1-8.
  10. Kanjilal UN (1979). Forest flora of the Chakrata, Dehradun and Saharanpur forest divisions, United provinces. Bishan singh and Mahendra pal singh, Dehradun, India.
  11. Leite JR, Seabra Mde L, Maluf E, et al. (July 1986). "Pharmacology of lemongrass (*Cymbopogon citratus* Stapf). III. Assessment of eventual toxic, hypnotic and anxiolytic effects on humans". *J Ethnopharmacol*. **17** (1): 75–83.
  12. Lis- Balchin M, Deans SG, *Journal of Applied Microbiology*, 1997, 82, 759-762.
  13. Prajapati ND, Purohit SS, Sharma AK, Kumar T (2003). A Handbook of Medicinal Plants: A complete source book. *Agrobios* (India).
  14. Raizada, MB (1976). Supplement to Duthe's Flora of the Upper Gangetic plain and the adjacent Siwalik and Sub-Himalayan Tracts. Bishan singh and Mahendra pal singh. International Book Distributors, Dehradun, India.
  15. Raizada MB, Saxena HO (1984). Flora of Mussoorie. Vol.1. Periodical expert Book Agency, Delhi.
  16. Rajendran A, Aravindhan V, Sarvalingam A (2014). Biodiversity of the Bharathiar university campus, India: A floristic approach. *Int. J. Biodivers. Conserv.* 6(4):308-319.
  17. Rawat R, Vashistha, DP (2011). Common herbal plant in Uttarakhand, used in the popular medicinal preparation in Ayurveda. *Int. J. Pharmacogn. Phytochem. Res.* 3(3):64-73.
  18. Reynolds JEF, Martindale- the extra pharmacopeia (31st ed), Royal Pharmaceutical Society of Great Britain, London, 1996.
  19. R'ýos JL, Recio MC. *Journal of Ethnopharmacology*, 2005, 100, 80–84.
  20. Shinwari, M.I. and Khan, M.A. 1998. Indigenous use of medicinal trees and shrubs of Margalla Hills National Park, Islamabad. Pak. *J. Forest*. 48(1-4) : 63-90.
  21. Siemonsma J, Piluek K (1994). Plant Resources of South –East Asia 8(PROSEA), Bogor, Indonesia, pp.412.
  22. Singh KK, P Anand (2002). Flora of Rajaji National Park, Uttaranchal. Bishan singh and Mahendra pal singh, Dehradun , India.
  23. Sunita Bansod; Mahendra Rai (2008). "Antifungal Activity of Essential Oils from Indian Medicinal Plants Against Human Pathogenic *Aspergillus fumigatus*

- and *A. niger*” (PDF). *World Journal of Medical Sciences*: 81–88. Retrieved November 4, 2012.
24. Wright SC. Maree JE. Sibanyoni M. (2009). “Treatment of oral thrush in HIV/AIDS patients with lemon juice and lemon grass (*Cymbopogon citratus*) and gentian violet”. *Phytomedicine*. 16 (2-3): 118–124.

## Effect of different pH on the infectivity of the necrosis virus

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**Abstract-** *Effect of different pH on the infectivity of necrosis virus was observed in the farmer's fields of village Barare, District - Agra. The standard virus inoculum was mixed with 0.05 composite. Composite buffer solution (boric acid, potassium phthalate and dihydrogen phosphate) of different pH values i.e. 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0 etc. in 1:1 ratio. The antiviral activity was tested on indicator plants. The lesions were counted by 20mm leaf disc area. Different pH (5-8) showed 67.66-75.86% infectivity of the virus. The maximum infectivity of the virus was Ph (7.0). The virus losses its infectivity at a higher pH 10.0- 11.0*

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**Keywords:** Different pH, Necrosis, virus, Tomato.

**Introduction:** Tomato (*Lycopersicon esculentum* Mill.) is an important annual fruit vegetable belongs to family Solanaceae. Tomatoes (*L. esculentum* Mill.) are cultivated throughout the world for its edible fruits. The tomatoes are good source of vitamins. Fresh ripe fruits are refreshing and appetizing and are consumed raw in salad or after cooking tomatoes are also consumed in the form of juice, paste, ketchup, soup and powder.

In India, tomatoes are grown throughout the year because of the favourable agroclimatic conditions in one part or another. The tomato plants require a warm growing season with plenty of sunshine and sufficient moisture. It does not tolerate frosts. It can be cultivated under irrigation in arid tropics, but hot and dry or hot and humid months are favourable for its growth. Tomato plants become susceptible towards foliage diseases during high humidity with high temperature. Warm sunny days and moderately cool nights are necessary for proper development of fruits. It grows in well drained, light fertile loamy soil with a fair capacity to hold moisture. In the hills, seeds are sown from about the middle of March to the middle of May or June. In plains, three crops are obtained, two early crops and a main crop, seeds are sown in June-August for the first crop, August to October for the second crop and October - November for the third crop in Malabar, where the tomato is grown as a catch crop in young coconut plantations, seeds are sown in September and seedlings transplanted in October. Seeds taken 7-10 days to germinate and seedlings are ready for transplanting in 4-6 weeks. In India the cultivations of

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tomato was started on a commercial scale towards the close of the last century. It has now become a popular vegetable and is cultivated extensively, particularly in the vicinity of large towns and cities. According to FAO estimates the average per hectare yield of tomato in India is about 9316 kgs against that the world and developing countries which is about 19915 kgs and 14483 respectively.

The tomato crop is subjected in nature to several biotic agents like Fungi, Viruses, Bacteria, Mycoplasma and Nematodes. Which inhibit its growth, reduce yield and thus degrade it's potential to mankind. Out of all the diseases, viral melodies caused maximum damage to the crop. There are about 36 viruses and their strains, 4 mycoplasmas (Martyn 1968) and one viroid (Potato spindle tuber) which affect tomato and induce one or the other disease alone or in combination. Spotted wilt virus is an important virus causing the wilt disease in tomato resulting in crop loss. About 3-95% of yield loss in tomato has been reported due to ToMV (Chitra et al; 2002). Effect of pH on the infectivity of virus has been discussed and reviewed by several workers (Kapoor and Helperin, 1965; Kado, 1972; Mathews, 1973 Roy, 1974 and Hull, 1975). Therefore, in present study different pH were studied against spotted wilt virus.

#### **Material and Methods:**

##### **Maintenance of Virus, Host Plant and Indicator Plant:**

The seeds of *L. esculentum* Mill and indicator plant were raised in 6" x 4" earthen pots containing soil and compost in the ratio of 3:1 in insect proof polythene chamber, insect infestation was avoided by periodical spray of folidol E. 605. About two week old seedlings were used for the experimental work. The plants used for experimental purpose were of same age, height and vigour. *Chenopodium amaranticolor* Cost and Reyn was selected for quantitative assaying. Thirteen leaf stage of indicator plants was used for quantitative assaying as recommended by Rsenkranz and Hagedorn .

##### **Preparation of standard virus inoculums:**

The standard virus inoculum was prepared by crushing the young leaves (5.0 gms). in 1ml of phosphate buffer (pH - 7.0) in an ordinary mortar with the help of pastel for about 10-15 minutes and then further diluted to 5ml. The suspension obtained was filtered through cheese cloth and then used for inoculation purpose.

Carborundum powder (600 mesh) was uniformly dusted on the upper surface of the leaves and then inoculum was applied on the surface with the help of fore finger. The excess of inoculum on the leaf surface was wiped off by a moist sterilized cotton pad.

##### **Preparation of Aqueous Solvent:**

Composite buffer were adjust to Ph-7 by adding N/10 NaOH or HCl and was measured with the help of pH meter. Then mixture was kept for half an hour at room temperature. The standard virus inoculums was mixed with

0.5M buffer of different pH values 1 : 1 ratio.

The samples of different pH were assayed on *C. amaranticolor*. The lesions were counted by 20mm leaf disc area. Corresponding leaves of *C. amaranticolor* was inoculated with virus inoculums (ph-7) for control.

### Result and Discussion:

It is evident from the results shown in the table that at low pH i.e. beyond 3.0 the infectivity of the virus was completely inhibited while pH5-8 favour infectivity of the virus. The maximum infectivity observed at pH 7.0. The virus losses its infectivity at higher pH 10.0 and 11.0. Gibbs and Harrison (1976) reported that the type amount and proportion of differentiations in the inoculums greatly affect the infectivity of the plant viruses. They also observed that infectivity of most plant viruses was inactivated at low pH values. Further they found that the virus particle were more soluble and stable at some pH values then others. The infectivity of the plant virus is known to be affected by different buffers, pH and molarity (Yadav1972, Sharma 1976 Abdelmoeti and Oxelfelt, 1982).

**Table Effect of different pH of Phosphate buffer on the infectivity of the Necrosis Virus**

S. No.	pH of Buffer	No. of lesions Per disc		Mean	Percentage Transmission
		Exp. I	Exp. II		
1.	1.0	-	-	-	-
2.	2.0	-	-	-	-
3.	3.0	23.5	25.4	24.45	45.27
4.	4.0	28.4	28.1	28.25	54.53
5.	5.0	35.5	34.60	35.05	67.66
6.	6.0	41.0	41.12	41.6	79.26
7.	7.0( Control)	52.6	50.8	51.80	100.00
8.	8.0	39.4	39.2	39.30	75.86
9.	9.0	18	20	19.00	28.35
10.	10.0	-	-	-	-
11.	11.0	-	-	-	-

- Each observation is a mean of five replication

### References :

1. Abdelmoeti, M. and Oxelfelt, P. (1982) Factors affecting red clover mottle virus stability and infectivity. *Phytopath. Z.* 103 (1): 55-56.
2. Chitra, T.R. et.al; (2002) Indexing of leaf and seed samples of tomato and bell pepper for tobamovirus. *Indian Phytopath.* **55**: 84 -86.
3. Gibbs, A. and Harison, B. (1976) Way of Preventing crop losses. In *Plant Virology, The Principles*. pp. 219-232. Edward Arnold (Publ.) London.
4. Hull, R. (1975) The stability and structure of the component of the pea enation mosaic virus. xii News letter; TWGLV (Abstr. Page 7).
5. Kado, C.I. (1962) The effect of pH and phosphate on virus infection. *Phytopath.* **52** : 362.
6. Martyn, E.V. (1968) Plant virus names. *Phytopath.* **9**: 1-4.
7. Mathews, R.E.F. (1973) Induction of disease by viruses with special reference

- to turnip yellow mosaic virus. Ann Rev. Phytopath. **11**: 147 – 170.
8. Ray; A.N. (1974) Studies on necrosis inciting virus of pea (*Pisum sativum* L.) Ph.D. thesis. Agra University, Agra India.
  9. Sharma, R.K. (1976) studies on a mosaic virus of pea (*Pisum sativum* L.) Ph.D. thesis Agra University, Agra.
  10. Yadav J.S. (1976) Studies on sterility virus of Black Gram (*Phascelus mungo* L.) Ph.D. thesis Agra University, Agra.

## Effectiveness of Antioxidants in Management of Skin Problems during Winter Season

\* Seema Khatun  
\*\* Vasu Verma

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**Abstract-** *The main objective of the present study is to assess the effectiveness of antioxidants in management of skin problems during winter season. To conduct the study 70 urban women between age group of 35-55 years were selected. The inclusion criteria for selection of subjects was video dermoscopic findings. Only those subjects diagnosed with skin problems such as acne, parched skin, dehydrated skin, uneven tone etc. were selected as sample. 24 hours recall method was used to assess intake of vitamin C and vitamin E intake of selected subjects in this single group pre-post design prior to commencement of study period. The subjects were counselled and advised to incorporate 5ml amala juice for vitamin C supplement and 15gm sprouted legumes for vitamin E supplement in their diet for a period of three months. After a period of three months skin health was reassessed again. The intake of vitamin C and vitamin E after study period was also analysed. Results indicate that skin health of urban women after three months was enhanced significantly as well as their intake of vitamin C and vitamin E. It was concluded that antioxidants vitamin C and vitamin E in the form of amla juice and sprouted legumes are effective remedial measures for skin related problems during winters.*

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**Keywords:**Antioxidants, vitamin C, vitamin E, skin health, urban women, winter

**Introduction:** During winter dry skin, dehydrated skin and chapped skin are common skin problems. The dry skin produce less natural lubricant i.e. sebum and that is why the skin is parched. Chapped skin which is a combination of dehydration, sun exposure and windburn is another skin problems encountered during winter. To manage skin problems during winter various oral and topical supplements are advocated. In this context the potential of antioxidants in the form of vitamin C and vitamin C is treatment of skin problems have also been advocated. Number of researchers has conducted studies in which they have shown the beneficial effect of antioxidants on skin health. The prominent among them are Tsourelis-Nikita et al. (2002), Yoshida et al. (2006), Wongekalak et al. (2011), Mishra et al. (2014), Jurate Jociene and Inga Vainore

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(2016), Pullar et al. (2017). Researchers have also examined the role of diet, nutrition on skin health. These researchers namely Nguyen and Torres (2012), Borumand and Sibilla (2015), Pappas et al. (2016) have extensively explored the association between nutrition and skin health. The two antioxidants extensively studied in the light of skin health are vitamin C and vitamin E. Studies have shown that vitamin C and vitamin E are effective in controlling the ill effects of UV induced photo damage caused by free radical (Darr et al (1992). Vitamin C was also linked to treatment of dry skin and skin roughness (Cosgrove et al. 2007). Hence researcher decided to assess effectiveness of antioxidants vitamin C and vitamin E by incorporating amla juice and sprouted legumes in a diet plan of three months prepared for urban women suffering from naturally occurring skin problems during winter.

### **Objectives:**

- To assess effectiveness of antioxidants vitamin C and E on skin health of urban women during winter season.
- To find out the relationship between vitamin C and vitamin E intake with skin health of urban women during winter season.

### **Hypotheses:**

It was hypothesized that incorporating amla juice and sprouted legumes in three months diet plan of urban women as antioxidant supplement of vitamin C and E will significantly improve the skin health of urban women during winter season.

**Methodology :** The following methodological steps were taken to conduct the study.

### **Sample :**

To conduct the study 70 middle aged urban women with poor skin health were selected during winter season. The skin health was determined by video dermascope along with recommendations of skin specialist at VLCC Raipur.

### **Tools:**

With the help of 24 hour recall method, intake of vitamin C and vitamin E was calculated.

Video dermascope was used to assess skin health of selected subjects. Video dermascope contains high quality magnifying lens, powerful lighting system and various attachments for video and still photography.

### **Procedure:**

70 urban women diagnosed with skin problems during winter season served as sample in the present study. Vitamin C and vitamin E intake of selected subjects was ascertained by 24 hour recall method. Diet chart of three months was prepared in which 5ml amala juice for vitamin C supplement and 15gm sprouted legumes for vitamin E supplement were incorporated in it. After three months skin health was again assessed by video dermascope. After three months vitamin C and vitamin E intake was again calculated by



24 hour recall method. According to the findings of video dermoscope, selected subjects were classified into three categories of skin health i.e. poor, moderate and good respectively. Gain score (Post-pre test) was computed for vitamin C and E intake during study period. The results are presented in table no. 1, 2 and 3 respectively.

### Data Analysis, Result and Discussion:

**Table No. 1**

#### Effectiveness of vitamin C and E supplementation on Skin Health of Urban Women during Winter Season

Skin Health	Post Test (N=70)	
	Frequency	Percentage (%)
Poor	10	14.3
Moderate	09	12.8
Good	51	72.9
Total	70	100

$$\chi^2 = 53.17, p < .01$$

Perusal of table 1 shows that 14.3% urban subjects were diagnosed to have poor skin health after completion of study period during winter season. 12.8% urban subjects were diagnosed to have moderate skin health after completion of study period during winter season. 72.9% subjects skin health were restored to normal after three months of study period during winter season. The photograph and video dermoscopic findings of subjects with good skin health showed that during study period their uneven colour of skin, age spots and hydration were controlled.

To find out the association between skin health and antioxidants, Pearson correlation coefficient was used. Results are shown in table 2 and 3.

**Table 2:**

#### Relationship between Vitamin C Intake and Skin Health among Urban Women during Winter Season

Status of Skin Health	N	Gain Score (Vitamin C)	
		Mean	S.D.
Poor	10	56.99	10.77
Moderate	09	65.30	8.15
Good	51	65.96	8.83

$$r=0.41, p < .01$$

**Table 3**

#### Relationship between Vitamin E Intake and Skin Health among Urban Women during Winter Season

Status of Skin Health	N	Gain Score (Vitamin E)	
		Mean	S.D.
Poor	10	8.81	2.93
Moderate	09	10.29	2.36
Good	51	11.32	2.57

$$0.67, p < .01$$

The correlation coefficient of  $r=0.41$  between skin health and mean gain in vitamin C intake was found to be statistically significant at .01 level. Similarly the correlation coefficient of  $r=0.67$  between skin health and mean gain in vitamin E intake was found to be statistically significant at .01 level. It shows that increased intake of vitamin C and E have beneficial impact on skin health of urban women during summer season.

On the basis of data analysis following results are obtained:

1. Skin health of majority of selected urban women was significantly improved after supplementation of antioxidants vitamin C and E in the form of amla juice and sprouted legumes for a duration of three months in winter season.
2. A significant positive correlation was observed between skin health with antioxidants vitamin C and vitamin E.

The results are consistent with previous findings in which McArdle et al. (2002) reported that UV radiation can be controlled by proper intake of vitamin C and vitamin E respectively.

**Conclusion:** On the basis of results and associated discussion it may be concluded that skin health during winter season can be taken care of by antioxidant properties of amla juice and sprouted legumes.

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#### References :

1. Borumand, M. and Sibilla, S. (2015). Effects of a nutritional supplement containing collagen peptides on skin elasticity, hydration and wrinkles. *J Med Nutr Nutraceut* 2015;4:47-53.
2. Cosgrove MC, Franco OH, Granger SP, Murray PG, Mayes AE. Dietary nutrient intakes and skin-aging appearance among middle-aged American women. *Am J Clin Nutr* 2007;86:1225-1231.
3. Darr D, Combs S, Dunston S, Manning T, Pinnell S. Topical vitamin C protects porcine skin from ultraviolet radiation-induced damage. *Br J Dermatol* 1992;127:247-253.
4. Jûratė Jocienė and Inga Vainore (2016). Impact of Vitamin C to Mature Facial Skin. *Applied Research In Health And Social Sciences: Interface And Interaction*, 13(1).
5. McArdle F, Rhodes LE, Parslew R, Jack CI, Friedmann PS, Jackson MJ. UVR-induced oxidative stress in human skin in vivo: effects of oral vitamin C supplementation. *Free Radic Biol Med* 2002;33:1355-1362.
6. Mishra, A.P., Saklani, Sarla, Milella, Luigi and Priyanki Towari (2014). Formulation and evaluation of herbal antioxidant face cream of *Nardostachys jatamansi* collected from Indian Himalayan region. *Asian Pacific Journal of Tropical Biomedicine*, Volume 4, Supplement 2, S679-S682.
7. Nguyen, G. and Torres, A. (2012). Systemic antioxidants and skin health. *J Drugs Dermatol*, 11(9):4.
8. Pappas, A., Liakou, A. and Zouboulis, C.C. (2016). Nutrition and skin. *Reviews in Endocrine & Metabolic Disorders*, 17(3):443-448.
9. Pullar, J.M.; Anitra C. Carr; Margreet C.M. Vissers (2017). The Roles of Vitamin C in Skin Health. *Nutrients*, 9(8): 866.

10. Tsourelis-Nikita, E., Hercogova, J., Lotti, T. and Menchini, G. (2002). Evaluation of dietary intake of vitamin E in the treatment of atopic dermatitis: A study of the clinical course and evaluation of the immunoglobulin E serum levels. *Int J Dermatol*; 41:146–50.
11. Wongekalak, L.S.P., Jirasripongpun, K. and Hongsprabhas, P. (2011). Potential use of antioxidative mungbean protein hydrolysate as an anti-cancer asiatic acid carrier. *Food Res Int.* 2011;44(3):812–817.
12. Yoshida, E., Watanabe, T., Takata, J., Yamazaki, A., Karube, Y. and Kobayashi, S. (2006). Topical application of a novel, hydrophilic gamma-tocopherol derivative reduces photo- inflammation in mice skin. *J Invest Dermatol.*; 126:1633–40.

## **Diversity of Beetles (Insecta: Coleoptera) In Gauhati University Campus**

\* Hridisha Nandana Hazarika

\*\*Jatin Kalita

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**Abstract-** *The survey of Beetle diversity was studied in Gauhati University Campus, Jalukbari, Assam from March to May 2015. A total of 12 species were recorded belonging to the families of Coccinellidae, Scarabaeidae, Carabidae, Chrysomellidae, Meloidae and Cerambycidae. Among these Carabidae, Scarabaeidae and Coccinellidae families were most diverse in Gauhati University Campus.*

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**Keywords:** Diversity, Beetle, Assam, North East India

**Introduction:** Insects are the most diverse group of organisms on earth, and must intrigue anyone with the slightest interest in the natural world. Coleoptera is an order of insects commonly called beetles. The word “coleoptera” is from the Greek *keleos*, meaning “sheath,” and *pteron*, meaning “wing,” thus “sheathed wing.” The reason for the name is that most beetles have two pairs of wings, the front pair, the “elytra,” being hardened and thickened into a sheath-like or shell-like protection for the rear pair and for the rear part of the beetle’s body. The order Coleoptera includes more species than any other order, constituting almost 25% of all known life-forms. Coleoptera is the largest Order in the animal kingdom, with over one-third of a million described species. Beetles occur almost all part of the world, in terrestrial habitats from mountaintops to the intertidal shoreline, from the forest to the desert, in subterranean caverns and in freshwater habitats (Booth et al., 1979.). About 3,50,000 described species of beetles are present in worldwide. Approximately 15,088 beetle species are recorded from India (Kazmi et al, 2004). The diversity of beetles is very wide. They are found in all major habitats, except marine and the Polar regions. There are particular species that are adapted to practically every kind of diet. The family Scarabaeidae is the largest family of insects which contains more than 30000 species in the world (Fincher et al, 1981). Coleoptera are small to very large insects, usually with strongly hardened bodies and the forewings modified into a protective covering or elytra. Some beetle species are beneficial to mankind, such as those used in the biological

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control of arthropod pests, weeds and those which are crop pollinators. They also help in the process of recycling of nutrients by breakdown of dead trees, animal remains and dungs. Whereas, some beetle species have a negative impact by competing for food resources or damaging products.

**Materials and methods:** The Gauhati University Campus is located 13.1Km from the Borjhar Airport, Guwahati adjoining the Deepor Beel Bird Sanctuary which lies 3km South-West from the Campus. It lies in between the geographical location of 26°12' N latitude and 91°05' E longitude and is 45m above mean sea level. The vegetation types found in the area are mixed-moist deciduous forests, semi-evergreen forests and scattered deciduous forests. Degraded and Shrub type of forests are also found here. The University Campus harbours varied natural habitats ranging from wetlands, grasslands, forests and many small and medium size ponds. There is also a botanical garden present within the Campus. The climate of the campus is subtropical with an average annual rainfall of around 2500mm. The temperature varies from around 7°C in the winter up to 37°C in summer and the relative humidity ranges between 45-80%.

The present study was conducted from March 2015 to May 2015. The survey and collection was done in morning (6.00am-11am) and evening (3.30pm-6.30pm) in the University Campus. The beetles were collected by a physical measure of insect collection i.e. hand picking. The killing jar is prepared by first dipped the cotton into chloroform and then the cotton is placed in the bottom of jar. After hand picking the beetles were put into the jar so that they were died in the jar. After collection the beetles were preserved by dry preservation. The beetles are pinned through the right side of the elytra. Identification was done using various taxonomic keys (Horn, 1905; Gahan, 1906; Jacoby, 1908; Maulik, 1919; Arrow, 1995; Cameroon, 1930; Maulik, 1926).

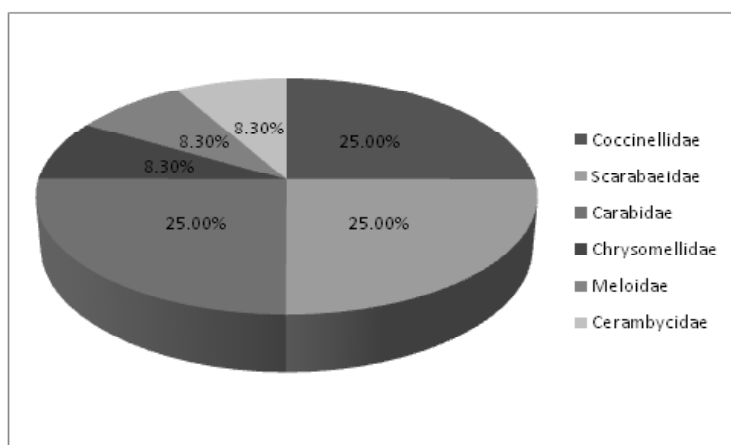
**Results and Discussion:** In the present study 12 species belonging to 10 genera and 6 families namely Coccinellidae, Chrysomellidae, Scarabaeidae, Carabidae, Cerambycidae and Meloidae were recorded from Gauhati University campus. The family Coccinellidae was represented by three species i.e. *Coccinella transversalis*, *Coccinella septempunctata* and *Epilachna vigintioctopunctata*; Chrysomellidae family was represented by only one species i.e. *Podontia quatuordecimpunctata*; Scarabaeidae family was represented by three species i.e. *Costelytra zealandica*, *Scarabaeus semepunctatus* and *Aphodius obscurus*; Carabidae family was represented by three species i.e. *Calosoma externum*, *Carabus convexus* and *Carabus scheidleri*; Meloidae family was represented by only one species i.e. *Mylabris pustulata*; Cerambycidae family was represented by only one species i.e. *Agapanthia viridescens*. The family Coccinellidae, Scarabaeidae and Carabidae were the dominant family in the Gauhati University Campus.

**Table1: Diversity of Beetles found in Gauhati university campus.**

FAMILY	GENUS	SPECIES	HABITAT
Coccinellidae	<i>Coccinella</i>	<i>Coccinella transversalis</i>	Found in leaves
	<i>Coccinella</i>	<i>Coccinella</i>	Found in leaves,
	<i>Epilachna</i>	<i>septempunctata</i>	flowers
	<i>Epilachna</i>	<i>vigintioctopunctata</i>	Found in flowers
Scarabaeidae	<i>Costelytra</i>	<i>Costelytra zealandica</i>	Found in dungs
	<i>Scarabaeus</i>	<i>Scarabaeus</i>	Found in dungs
	<i>Aphodius</i>	<i>semepunctatus</i>	Found in dungs
	<i>Aphodius</i>	<i>obscurus</i>	
Carabidae	<i>Calosoma</i>	<i>Calosoma externum</i>	Found under stones and
	<i>Carabus</i>	<i>Carabus convexus</i>	barks
	<i>Carabus</i>	<i>Carabus scheidleri</i>	Found under stones and
			barks
Chrysomellidae	<i>Podontia</i>	<i>Podontia</i>	Found in leaves
		<i>quatuordecimpunctata</i>	
Meloidae	<i>Mylabris</i>	<i>Mylabris pustulata</i>	Found in flowers
Cerambycidae	<i>Agapanthia</i>	<i>Agapanthia viridescens</i>	Found in woods

**Table 2: Family wise percent occurrence of Beetles collected from Gauhati University Campus.**

FAMILY	SPECIES	PERCENTAGE (%)
Coccinellidae	3	25
Scarabaeidae	3	25
Carabidae	3	25
Chrysomellidae	1	8.3
Meloidae	1	8.3
Cerambycidae	1	8.3

**Fig1: Subfamily wise percentage occurrence of different Beetle species from the Gauhati University campus.**

Scarabaeidae was reported to be the dominant (25%) probably due to the fact that adults of these beetles are more noticeable and sighted because of their relatively large size, bright colours, often with elaborate ornamentation (Chandra et al,2013). Moreover, the dung beetles, through their dung consumption and relocation activities, might be helping in performing a series of ecological functions such as nutrient cycling, soil aeration, parasite suppression, secondary seed dispersal and bioturbation (Chandra et al, 2012). Carabids are usually predators and they are considered to be opportunistic feeders that consume a variety of foods, where some species are omnivorous, some phytophagous and most of them are carnivorous (Lobi et al, 2003). Family Carabidae commonly known as ground beetles and they are important biological control agents in agro ecosystems, and play a significant role in ecologically-based integrated pest management programs that focus on avoidance or reduction of pest pressure through cultural practices and biological controls (Thakkar et al,2016). Chrysomellidae, Meloidae and Cerambycidae were represented by 8.3%. Family Chrysomellidae are commonly known as leaf beetles and many of them are important agricultural pests. Family Coccinellidae are commonly known as ladybird beetles. The majority of Coccinellid species are generally considered useful insects because many species prey on herbivorous homopterans such as aphids and scale insects, which are agricultural pests. Family Meloidae are commonly known as blister beetles and they are pestiferous. Larvae of some species attack grasshoppers and locusts, helping to control pest populations and adults may be important pollinators in some areas by visiting flowers and transporting pollens. Family Cerambycidae are commonly known as long horn beetles and it is economically most important wood boring insect. It causes damages to forests, fruit and nut trees, vegetable and field crops etc.

**Cocclusion:** The climate, vegetation and physiography have direct impact on the diversity of Beetles. So a long term study is needed to observe the species occurrence in all seasons and their interaction with the environmental changes for better results.

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#### References :

1. Aland SR, Mamlayya AB, Bhawane GP. Diversity of beetles (Insecta: Coleoptera) in and around Amba Reserve Forest, Western Ghat, Kolhapur. Avishkar –Solapur University Research Journal. 2012; 1 2:31-41.
2. Arrow CJ. The Fauna of British India Ceylon and Burma. Coleoptera: Clavicornia. (Edited by Shipley, A. E. and Scutt, H.), Taylor and Francis, Red Lion Court, Fleet Street, London, pp.1995;415.
3. Booth RG, Cox ML and Madge RB. Guide to insects of importance to man (Coleoptera). International institute of Entomology, the Natural History Museum United Kingdom.1979.

4. Cameroon, M., The fauna of British India Ceylon and Burma. Coleoptera: Staphylinidae. (Ed. Stephenson, C. J.). Taylor and Francis, Red Lion Court, Fleet Street, London. 1930.
5. Chandra K, Gupta D. Scarab beetles (Coleoptera: Scarabaeoidea) of Barnawapara Wildlife Sanctuary, Chhattisgarh, India. Journal of Threatened Taxa. 2013; 5(12):4660-4671.
6. Chandra K, Gupta D. New Distributional Record of Five species of Onthophagus (Coleoptera: Scarabaeidae: Scarabaeinae) from Central India. Scholarly Journal of Agricultural Science. 2012; 2:8-12.
7. Fincher GT, Monson WG, Burton GW. Effect of cattle faeces rapidly buried by dung beetles on yield and quality of Bermudagrass. Agronomy Journal. 1981; 73:775-779.
8. Gahan, C.J. The Fauna of British India including Ceylon and Burma- Coleoptera: Cerambycidae Vol.1, (ed.) Bingham, C.T., Published by Taylor and Francis, London. 1906; 329.
9. Horn W. The Fauna of British India including Ceylon and Burma- Coleoptera Published by Taylor and Francis, London. 1905.
10. Jacoby M. The Fauna of British India including Ceylon and Burma- Coleoptera: Chrysomelidae Vol.1, (ed.) Bingham, C.T., Published by Taylor and Francis, London. 1908; 534.
11. Kakkar N, Gupta SK. Temporal variations in dung beetle (Coleoptera: Scarabaeidae) assemblages in Kurukshetra, Haryana, India. Journal of Threatened Taxa. 2009; 1(9): 481-483.
12. Larsen JK, Work TT, Purrington FF. Habitat Use Patterns by Ground Beetles (Coleoptera: Carabidae) of Northeastern Iowa. Pedobiologia. 2003; 47:288-299.
13. Lobi I, Smetana A. Archostemata Myxophaga-Adephaga. Apollo Books. Stenstrup, Denmark. Catalogue of Palaearctic Coleoptera. 2003; 1:819.
14. Maulik, S. The Fauna of British India including Ceylon and Burma: Coleoptera- Chrysomelidae (Hispidinae and Cassidinae), (eds.) Shipley, A. E. and Marshall, A. K. G., Published by Taylor and Francis, London. 1919; 439.
15. Maulik, S., The fauna of British India Ceylon and Burma. Coleoptera: Chrysomelidae. (Ed. Shipley, E.). Taylor and Francis, Red Lion, Fleet Street, London, 1926.
16. Pawara RH, Patel NG, Pawara JV, Gavit PJ, Ishi SS. Beetles of Jalgaon district of Maharashtra, India. Biolife an International Quarterly Journal of Biology & Life Sciences. 2012; 2(3):970-973.
17. Saikia MK. Diversity Of Tropical Butterflies In Urban Altered Forest At Gauhati University Campus, Jalukbari, Assam, India Journal of Global Biosciences. 2014; 3(2):452-463.
18. Thakkar B, Parikh PH. A Study on diversity and abundance of coleopterans in Gujarat, India. Journal of Entomology and Zoology Studies. 2016; 4(5): 1082-1089.
19. Thakare VG. Ground beetles (Coleoptera: Carabidae) of Melghat Tiger Reserve, Central India, Journal on New Biological Reports. 2013; 2(2):173-176.
20. Thakare VG, Zade VS, Chandra K. New Records of Scarabaeid Beetles (Coleoptera: Scarabaeidae) from Melghat Tiger Reserve, Maharashtra, India. Biological Forum — An International Journal. 2012; 4(1):6-10.
21. Thakare VG, Zade VS, Chandra K. Diversity and abundance of scarab beetles



- (Coleoptera: Scarabaeidae) in kolkas region of Melghat Tiger Reserve (MTR), District Amravati, Maharashtra, India. World Journal of Zoology. 2011; 6(1):73–79.
22. Wankhade V, Manwar N, Malu A. Preliminary Studies on Diversity of Order Coleoptera at Sawanga-Vithoba Lake Region, District Amravati, Maharashtra, India. Journal of Entomology. 2014; 11:170-175.

## **Age at Menarche and Adult Obesity: A Cross-sectional Study among the Deori and Kalita Women of Assam, North East India**

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**Abstract-** *Reproductive health, an elementary segment for the study of women's general health. For women, age at menarche is the fundamental maturity indicator and a significant indicator of physiological health which depends on various factors. Moreover age of onset of menarche may also the factors of obesity in later life. Present study was conducted to understand the relationship in age at menarche (AAM) and adult obesity. A cross-sectional study was carried out among the women of two distinct ethnic group viz. Deori, a tribal and Kalita, a caste population of Assam, North East India. The obesity indices body mass index (BMI), waist circumference (WC), waist hip ratio (WHR) and waist height ratio (WHtR) were used for assessing both general and regional obesity.*

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**Keywords:** Age at menarche, adult obesity, BMI, tribe and caste.

**Introduction:** Menarche is the major component of women's reproductive life which causes major hormonal changes. Age at menarche is influenced by different variables such as genetic factors, environment, lifestyle, height and weight status, nutrition, the number of children in the family and socioeconomic status (Kapoor and Kapoor, 1986; Graham et al. 1999; Berkey et al. 2000; Riley, 2001; Hesketh et al. 2002; Ersoy et al. 2004; Chodick et al. 2005; Ekerbicer et al. 2007; Jones et al. 2009; Ghosh et al. 2009 and Cho et al. 2010). It showed that though the causal relationship between age at menarche and adult obesity is still in debate. Globally, several studies have been conducted on early menarche which the risk factor for adult obesity, depression, breast cancer, type 2 diabetes and cardiovascular disease (Dreyfus et al., 2012; Trikudanathan et al., 2013; Feng et al., 2008; Guo et al., 2011; Harris et al., 2008; Jordan et al., 2005 and Mueller et al., 2012). The present study was conducted to know the relationship between age at menarche and adult obesity among the Deori and Kalita women of Assam.

**Materials and methods:** Data have been collected from premenopausal married women in the age group ranging from 20 to 49 years. Present study was conducted among Deori, a tribal population and Kalita, a caste population

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of Assam, North East India. A cross sectional study has been carried out among 871 individuals (461 Deori and 410 Kalita). In determining the AAM, the retrospective (or recall) method was used. AAM was divided into two groups viz. early menarche (9-13 years) and late menarche (>13 years) and odd ratios were calculated for assessing the risk of obesity in adulthood using multiple logistic regression. Anthropometric measurements were taken according to the technique described by Weiner and Lourie (1981) and Singh and Bhasin (2004). All the instruments were checked for zero error before each measurements and procedure for taking measurements was practiced before hand to reduce personal error. Stature was taken using anthropometer rod to the nearest 1 mm and the body weight was taken by portable weighing machine to the nearest 0.5 kg. Waist and hip circumference were measured to the nearest 0.1 cm with a non- stretchable tape. The levels of general obesity were assessed with the help of Body Mass Index (BMI) which is used as a risk index and as a body fat index (WHO, 2000) on the other hand regional adiposity was assessed with the help of waist circumference (WC), waist-hip ratio (WHR) and waist- height ratio (WHtR).

### Results:

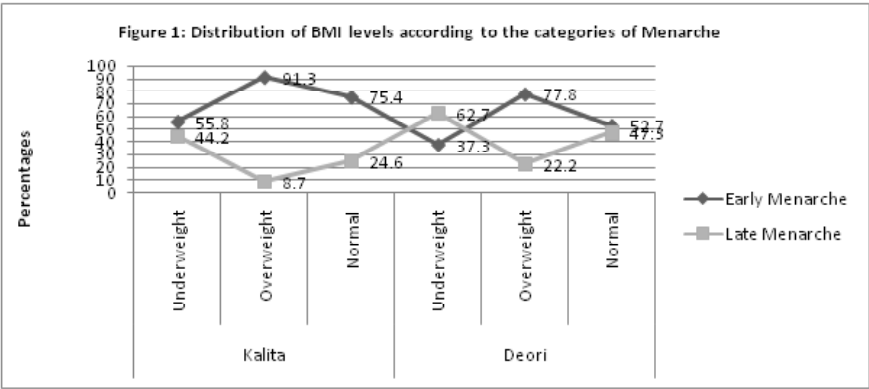
Table 1 represents the mean, standard deviation and t- values of the basic characteristics of the study population. The mean age at menarche among Deori females has been found to be higher than the Kalita females and the difference was found to be statistically significant. When showed height vertex, body weight, maximum hip circumference and body mass index significant differences have been found among them.

**Table 1: Baseline characteristics of study population**

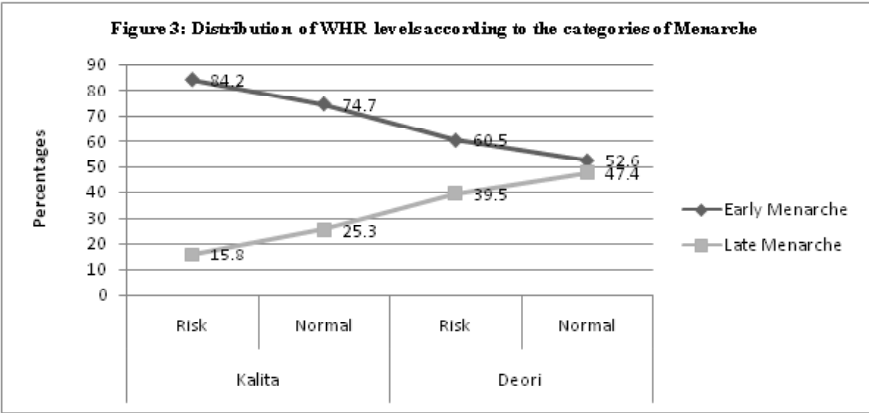
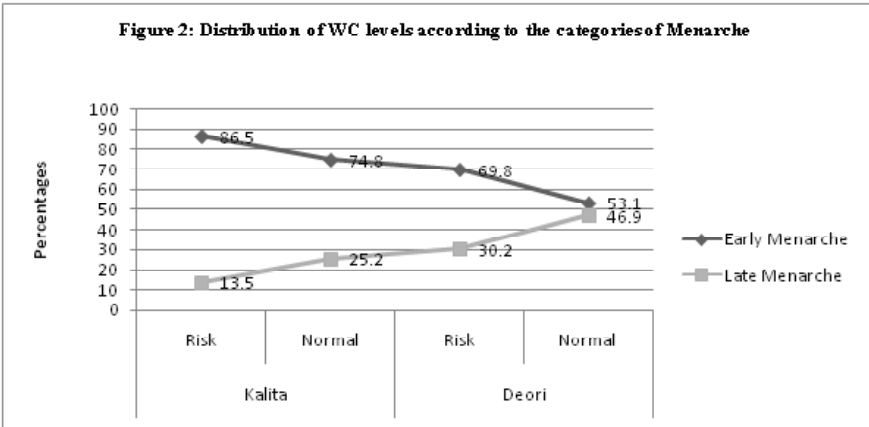
Variables	Kalita	Deori	t-values
	Mean±SD	Mean±SD	
Age (years)	33.56±7.85	32.68±7.83	1.66
Age at menarche (years)	12.37±1.48	13.28±1.44	9.15***
Height vertex (cm)	154.68±5.40	153.82±4.61	2.51*
Body Weight (kg)	54.50±7.98	51.66±7.48	5.40***
Minimum Waist Circumference (cm)	71.06±9.23	70.45±6.74	1.09
Maximum Hip Circumference (cm)	86.95±9.52	85.88±5.42	2.00*
Body Mass Index (kg/m <sup>2</sup> )	22.78±3.23	21.83±3.04	4.44***
Waist Hip Ratio	0.82±0.09	0.82±0.06	0.14
Waist Height Ratio	0.46±0.06	0.46±0.04	0.38

\*p<0.05, \*\*p<0.01 and \*\*\*p<0.001

Figure 1 exhibits the distribution of BMI levels according to the categories of menarche among Kalita and Deori women of Assam. Among both the population, it has been found that the higher percentage of underweight category was found among the women who had late menarche whereas higher percentage of overweight women was found among the women who had early menarche.



When showed the distribution of WC, WHR and WHtR levels according to the categories of menarche, it has been found that women who had early menarche were greater risk of having regional obesity both among Kalita and Deori population of Assam (Figure 2, 3, 4).



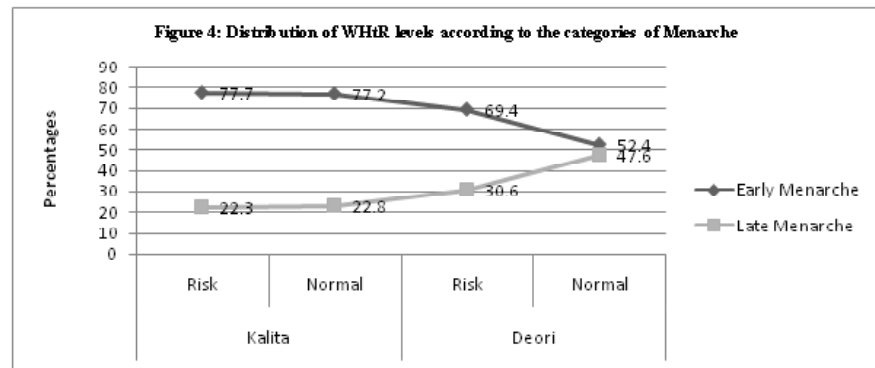


Table 2 displays the multinomial logistic regression analysis to see the likelihood of becoming obese depending on the age at menarche. Among Kalita women who had early menarche were 3.45 times (95% Confidence Interval: 1.65- 7.23) and among Deori 3.11 times (95% Confidence Interval: 1.71- 5.65) more likely to be become overweight as compared to the women who had late menarche. Moreover when showed the WC it has been observed among Kalita and Deori that women who had early menarche were 2.19 times (95% Confidence Interval: 1.13- 4.23) and 2.0 times (95% Confidence Interval: 1.01- 3.95) more likely to be have abdominal obesity as compared to the women who had late menarche respectively.

It was found from the table 2 that the women who had experienced early age at menarche among Kalita women were 1.83 times (95% Confidence Interval: 1.04- 3.23) and Deori 1.35 times (95% Confidence Interval: 0.88- 2.06) more likely to be at risk categories of WHR as compared to the women who had late menarche. On the other hand among Kalita women who had early menarche were 1.05 times (95% Confidence Interval: 0.62- 1.76) and among Deori 2.05 times (95% Confidence Interval: 1.15- 3.64) more likely to be having higher waist height ratio as compared to the women who had late menarche.

**Table 2: Odds Ratio (and 95% Confidence Intervals) from Multivariate Logistic Regression Analysis to identify the Association between Age at Menarche and Obesity Indices**

Obesity Indices	Name of the Population	Age at Menarche	Exp(B)	95% Confidence Interval for Exp(B)	
				Lower Bound	Upper Bound
BMI (Overweight/Obese)	Kalita	<13 yrs	3.449**	1.646	7.228
		>13 yrs®	0	0	0
	Deori	<13 yrs	3.109**	1.710	5.650
		>13 yrs®	0	0	0
WC (Risk)	Kalita	<13 yrs	2.186*	1.131	4.226
		>13 yrs®	0	0	0
	Deori	<13 yrs	1.998*	1.012	3.946
		>13 yrs®	0	0	0
WHR (Risk)	Kalita	<13 yrs	1.827*	1.035	3.226
		>13 yrs®	0	0	0
	Deori	<13 yrs	1.345	0.878	2.060
		>13 yrs®	0	0	0
WHtR (Risk)	Kalita	<13 yrs	1.046	0.620	1.764
		>13 yrs®	0	0	0
	Deori	<13 yrs	2.047*	1.151	3.642
		>13 yrs®	0	0	0

\*p&lt;0.05 and \*\*p&lt;0.001

**Discussion:**

In the present study the mean age at menarche among Deori (13.28±1.44 years) women was found to be higher than the Kalita (12.37±1.48 years) women and the differences was found to be statistically significant at p<0.001. Emergence of modernization, higher socio-economic status, genetics and environment could be the reason of lower age at menarche in the present study (Nystrom and Vagero, 1987; Sengupta, 1996).

It has been reported that, different phases of reproductive life, the female body undergoes great changes in fat distribution (Bjorkelund, 1996). In the present study while showed the effect of timing of puberty on general and regional obesity women who reported early menarche were more likely to be becoming overweight (measured by BMI) and abdominal obese (measured by WC, WHR and WHtR) as compared to the women who had late menarche in both of the population. WC, WHR and WHtR are the commonly used adiposity indices to predict the risk of obesity related morbidity such as diabetes, hypertension and CVD (Welborn et al., 2003; Ko et al., 1999; Dalton et al., 2003, Seidell et al., 1997; Beegom et al., 1995; Dipietro et al., 1999). The reliability and validity of anthropometric measurements for the use of index of cardiovascular risk factors are well established (Yalcin et al., 2005; Khan et al., 2008). In the present study women who had early menarche would more risk of having cardio- metabolic diseases in later life. Moreover, when compared the populations, it showed that the odds ratios were found higher among Kalita women for being at risk category of BMI, WC and WHR. Whereas the odds ratio of WHtR was found higher among Deori as compared to Kalita women. Finally it can be said that among both the population

reproductive parameter which is age at menarche has significant association with body structure. Among both Kalita and Deori, early puberty was found to be the better predictor for high body mass index and waist circumference during adulthood.

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### **References :**

1. Beegom R, Beegom R, Niaz MA, Singh RB. 1995. Diet, central obesity and prevalence of hypertension in urban population of south India. *Int J Cardiol*; 51: 183–191.
2. Berkey CS, Gardner JD, Frazier AL, Colditz GA. 2000. Relation of Childhood Diet and Body Size to Menarche and Adolescent Growth in Girls. *American Journal of Epidemiology*; 152 (5).
3. Bjorkelund C, Lissner L, Andersson S, Lapidus L, Bengtsson C. 1996. Reproductive History in Relation to Relative Weight and Fat Distribution. *International Journal of Obesity*; 20: 213- 219.
4. Cho GJ, Park HT, Shin JH, Hur JY, Kim YT, Kim SH, Lee KW, Kim T. 2010. Age at menarche in a Korean population: secular trends and influencing factors. *Eur J Pediatr*; 169:89–94.
5. Chodick G, Huerta m, Balicer RD. 2005. Secular Trends in Age at Menarche, Smoking and Oral Contraceptive use Among Israeli Girls. *Prev Chronic Dis*; 2: A12.
6. Dalton M, Cameron AJ, Zimmet PZ, Shaw JE, Jolley D, Dunstan DW, Welborn TA, AusDiab Steering Committee. 2003. Waist circumference, waist-hip ratio and body mass index and their correlation with cardiovascular disease risk factors in Australian adults. *J Intern Med*; 254: 555-63.
7. Dipietro L, Katz LD, Nadel ER. 1999. Excess abdominal adiposity remains correlated with altered lipid concentrations in healthy older women. *Int J Obes Relat Metab Disord*; 23: 432–436.
8. Dreyfus JG, Lutsey PL, Huxley R, Pankow JS, Selvin E, Fernández-Rhodes L, Franceschini N, Demerath EW. 2012. Age at menarche and risk of type 2 diabetes among African-American and white women in the Atherosclerosis Risk in Communities (ARIC) study. *Diabetologia*; 55 (9): 2371–2380.
9. Ekerbicer HC, Celik M, Kiran H. 2007. Age at Menarche in Turkish Adolescents in Kahramanmaras, Eastern Mediterranean Region of Turkey. *Eur J Contracept Reprod Health Care*; 12: 289– 293.
10. Ersoy B, Balkan C, Gunay T, Onag A, Egemen A. 2004. Effects of different socioeconomic conditions on menarche in Turkish female students. *Early Human Development*; 76: 115–125.
11. Feng Y, Hong X, Wilker E, Li Z, Zhang W, Jin D, Liu X, Zang T, Xu X. 2008. Effects of age at menarche, reproductive years, and menopause on metabolic risk factors for cardiovascular diseases. *Atherosclerosis*; 196 (2): 590-7.
12. Ghosh JH, Basak S, Bandyopadhyay AR. 2009. A study on nutritional status

- among young adult Bengalee females of Kolkata: effect of menarcheal age and per capita income. *Anthrop. Anz. Jg.*; 67 (1):13–20.
13. Graham MJ, Larsen U, Xu X. 1999. Secular Trend in Age at Menarche in China: A Case Study of Two Rural Counties in Anhui Province. *J Biosoc Sci*; 31:257–267.
  14. Guo X, Ji C. 2011. Earlier menarche can be an indicator of more body fat: study of sexual development and waist circumference in Chinese girls. *Biomedical and Environmental Sciences*; 24 (5): 451–458.
  15. Harris MA, Prior JC, Koehoorn M. 2008. Age at menarche in the Canadian population: secular trends and relationship to adulthood BMI. *J. Adolesc. Health*; 43(6):548–554.
  16. Hesketh T, Ding QJ, Tomkins A. 2002. Growth Status and Menarche in Urban and Rural China. *Ann Hum Biol*; 29: 348–352.
  17. Jones LL, Griffiths PL, Norris SA. 2009. Age at Menarche and the Evidence for a Positive Secular Trend in Urban South Africa. *Am J Hum Biol*; 21: 130–132.
  18. Jordan SJ, Webb PM, Green AC. 2005. Height, age at menarche, and risk of epithelial ovarian cancer. *Cancer Epidemiol Biomarkers Prev*; 14: 2045-8.
  19. Kapoor AK, Kapoor S. 1986. The Effects of High Altitude on Age at Menarche and Menopause. *Int J Biometeorol*; 30: 21-26.
  20. Khan A, Haq FU, Pervez MB, Saleheen D, Frossard PM, Ishaq M, Hakeem A, Sheikh HT, and Ahmed U. 2008. Anthropometric correlations of blood pressure in normotensive Pakistani subjects. *Int. J. Cardiol.*; 124: 259-262.
  21. Ko GT, Chan JC, Cockram CS, Woo J. 1999. Prediction of hypertension, diabetes, dyslipidaemia or albuminuria using simple anthropometric indexes in Hong Kong Chinese. *Int J Obes Relat Metab Disord*; 23 : 1136-42.
  22. Mueller NT, Odegaard AO, Gross MD, Koh WP, Yuan JM, Pereira MA. 2012. Age at menarche and cardiovascular disease mortality in Singaporean Chinese women: the Singapore Chinese Health Study. *Ann Epidemiol*; 22:717-22.
  23. Nystrom PAM, Vagero DH. 1987. Adult body height and childhood socioeconomic group in the Swedish population. *Journal of Epidemiology and Community Health*; 41: 333–337.
  24. Riley AP, Weinstein M, Ridley JC, Mormino J, Gorrindo T. 2001. Menarcheal age and subsequent patterns of family formation. *Soc Biol*; 48(1-2):21-43.
  25. Seidell J, Han T, Feskens E, Lean M. 1997. Narrow hips and broad waist circumference independently contribute to increased risk of non-insulin dependent diabetes mellitus. *J Intern Med*; 242: 401–406.
  26. Sengupta S. 1996. Menarche and its Trend in North East India. In: Sengupta S. eds. *Peoples of North East India: Anthropological Perspectives*. Gyan Publishing House, New Delhi.
  27. Singh IP, Bhasin MK. 2004. *A Manual of Biological Anthropology*. Kamla Raj Parkashan, Printers and Publishers, Delhi.
  28. Trikudanathan S, Pedley A, Massaro JM, Hoffmann U, Seely EW, Murabito JM, Fox CS. 2013. Association of female reproductive factors with body composition: the framingham heart study. *Journal of Clinical Endocrinology and Metabolism*. 98 (1): 236–244.
  29. Weiner JA, Lowrie JA. 1981. *Practical Human Biology*. Academic Press, London, UK.
  30. Welborn TA, Dhaliwal SS, Bennett SA. 2003. Waist-hip ratio is the dominant



- risk factor predicting cardiovascular death in Australia. *Med J Aust*; 179 : 580-5.
31. Yalcin BM., Sahin EM, and Yalcin E. 2005. Which anthropometric measurements is more closely related to elevated blood pressure?. *Fam. Prac*; 22: 541-547.



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