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Editorial

We are living in a digital age at the moment, where information is transmitted at lightning speed. The scope of discussion in the city-to-village crossings has now become endless. The misuse of this growing scope is now being done to see and read unwanted content, now our society has gradually started to take 'love instead of porn'. Impatience, lack of direct communication, social crimes are increasing. Thoughtless messages are carried forward, in which sometimes child theft and other religious, political or planned hysterical rumors are spreading, which makes the crowd furious and go off without a thought. The biggest reason for this is the smartphone that has made its place in every palm, the disharmony spread on social media. It is noteworthy that most of the rumors like child theft spread on WhatsApp. Have you noticed why the administration first places a ban on the Internet when there is tension in an area. Many such incidents have come to light that such inflammatory messages and rumors only become the hero of the crowd through WhatsApp or any social media platform. These social messaging apps, especially videos and hate messages on WhatsApp, are forwarded without knowing the truth of the incident.

At present, a horrendous threat has emerged in India too, "Moblinking" means a mob attack by a mob. Recently there have been incidents of mob lynching in many places across the country. Due to false rumors, many people have been killed by the mob. After all, how suddenly so many people gather together for one purpose. The psychology of the crowd has been a small part of social science. This is a strange and old method, whose relevance has come to an end after stability in society and trust in law and order. The discussion on the psychology of mob began as a different phenomenon when we considered the mob of the French Revolution or the racial mob of the Ku Klux Klan as an example. Then the old issue of killing a black person by a mob of white people was a topic of discussion in the psychology of the crowd. The incidents of frequent mob lynchings in India in the last few years are forcing us to wonder whether the 'anarchy of mobocracy' is prevailing in our country now ..? In the name of saving the cow, Asha Khan and Rakbar Khan (whose death actually happened in police custody?) Are killed in the name of Cow, and then in the absence of Goumant, Mohamed Akhilak is killed in Noida, sometimes love-jihad So, due to the rumor of 'child thieves' on the social media, the crowd is coming out to make 'justice' on the lines of the decision on the spot.

The major incident of mobs lining was brought out in Maharashtra, where on 1 July 2018, the crowd beat and beaten five people in Ranpada village of Dhule. These people were accused of being child thieves. On 9 June 2018, two youths were beaten to death by a mob after a rumor of a child thief gang spread on social media in a remote area of Assam's Karbi Anglong

district. On April 28, 2018, a Hindi-speaking laborer was beaten to death by a Hindi-speaking laborer in Vellore district, in June, 2018, local people in Chennai's Tenampet area badly beat two migrant laborers in the suspicion of being a child thief. On 15 June 2018, a software engineer was allegedly beaten to death by a mob and 3 people were seriously injured by a mob on WhatsApp in Muraki of Bidar district, Karnataka. On July 21, Khetaram Bhil was allegedly beaten to death by 12 men on charges of illicit relations with a Muslim woman in Barmer district of Rajasthan, bordering Pakistan. On 24 July 2018 In Jalpaiguri district of Bengal, the crowd allegedly attacked four women and left two of them suspected of being a thief and disarmed two of them. There were 2 such incidents in the same month. In 2017 itself, 16-year-old Junaid was killed in Ballabgarh, Haryana, in a minor dispute over a seat in a train. On 22 June 2017, security officer in Kashmir Mohammad Ayub Pandit was beaten to death by the local people because he was taking photographs of people outside the mosque.

Overall, a lot of such incidents have occurred in the whole of India in this decade. The Supreme Court has strongly reprimanded the government for failing to curb the rampant mob and rumors circulating on social media, calling it a 'sinister act of monocracy' on the cases that are continuously coming up.

Another sad aspect of these incidents is that political and social organizations take up these incidents more according to their 'facilities'. In such a situation, his opposition is more 'political' rather than real, which also makes it light.

The country's largest court is also very strict about incidents of mob lynching. During the trial of Tehsin Poonawala case, the Supreme Court has issued the guidelines for the central government and state governments to prevent the occurrence of lobbying. During this time the Supreme Court had said that it is the duty of the government to protect the life of every citizen. Article 21 of the constitution gives every citizen the right to life and without the process established by law, one's life cannot be taken away. This means that if someone has committed a crime, he will be punished only by bringing it under the purview of the law.



Professor Akhilesh Shukla

Editor

Date- 01 June 2019



Professor Braj Gopal

Chief Editor

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Nature of Indian Federalism

* Aparajita Kumar

Abstract- *The Indian federation is a 'holding together' of States and not 'coming together' like the USA. The extra-ordinary conditions under which the Indian federation was formed, led the founding fathers to adopt an unorthodox federal structure. The embodiment of various deviations from the federal principles has often led the critics to question the very nature of the Indian polity. Many have concluded with utmost conviction that the Indian set-up can hardly be called 'federal' and it is mostly a 'unitary set-up' disguised in a federal form. This paper is an attempt to assess the federal nature of the Indian Constitution. In order to examine the nature of the Indian state it is necessary to trace the origin and journey of the federal idea in India. It becomes more important to do so as India was a totally unitary set-up till the First World War. The introduction of the federalist scheme in India in 1917 and its subsequent culmination as the basis of Indian polity in the Constituent Assembly provides a clear insight into the minds of the makers of the Constitution. It also aids in understanding the reasons behind the peculiarities of the Indian federal system. Further, the particular aspects of Indian federation are required to be looked into to conclude as to whether the argument that the Indian polity is hardly a federation holds any merit. It is also necessary to examine the path that the Indian federation has taken over the years and the trends it has demonstrated. Judicial interpretations, of the nature of Indian federalism, are another arena to be scrutinized to make a conclusive statement regarding its nature. A perusal of all the above factors leads to the conclusion that India was and is definitely a federal country albeit its federalism is an unconventional one.*

Key Words- Federation, States, Federal structure, Deviations

“Personally, I do not attach any importance to the label which may be attached to it - whether you call it a Federal Constitution or a Unitary Constitution or by any other name. It makes no difference as long as the Constitution serves our purpose.”

Dr. Rajendra Prasad

Introduction:

K Santhanam, a prominent southern member of the Constituent Assembly and editor of The Hindustan Times, described the Indian situation at the time of Independence in terms of three revolutions. The political

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revolution would end, he wrote, with independence. The social revolution meant 'to get(India) out of medievalism based on birth, religion, customs and community and reconstruct her social structure on modern foundations of law, individual merit, and secular education'. The third revolution was an economic one: "the transition from primitive rural economy to scientific and planned agriculture and industry." Independence was seen as means to an end not the end itself. The end was the socio-economic development of India designed not only to bring about "the real satisfaction of the fundamental needs of the common man", but to go much deeper and bring about "a fundamental change in the structure of Indian society". The goal of the Constituent Assembly was, therefore, to draft a Constitution which would fulfil this socio-economic agenda of the newly formed Indian polity. But this task was far more complicated than the simple drafting of fundamental rights or the moral precepts of a Preamble.

What form of political institution would permit a social revolution? Moreover, any thought of social betterment of the nation would be a mere utopian idea if the requisite state machinery is not erected to provide support to the same. If the country was in shambles, its government in disarray and the faith of its people misplaced, then there could be no economic advancement and hardly any governmental efforts for bringing about a social revolution. What political institutions, would therefore, help to accomplish these subsidiary aims and so establish the conditions in which social change could more easily take place? Should the Constitution be unitary, federal or almost completely decentralized?

Growth of The Federal Idea in India:

Federalism was mooted as a solution to the Indian problem in the 1930s when Indian political leadership was faced by two important questions, viz, bringing British India and the Native States together into a closer political association as a step towards the attainment of Dominion Status; and secondly, exploring the possibilities of bringing the two principal communities in India- Hindus and Muslims- together in a workable political system. Till the end of World War I nowhere is there any mention of a federal polity in Indian history. It was the Montague Chelmsford Report which spoke of the Indian Federation as the only possible means of fulfilling the Declaration of August 20, 1917. *During the inter-war period, there emerged the unique thinking, which Dicey holds to be an essential prerequisite for the coming together of a federation, viz., a widespread desire for union but not unity.* The first unambiguous acceptance of the federal solution to the Indian problem was in the Indian Statutory Commission's Report, 1929. It referred to the federal solution when it asserted its belief that the evolution of the Indian system would be in the direction of federalism. The Report further recommended for the setting up of a Council for Greater India, consisting of representatives of British India, with the Viceroy as President. The Council was to discuss matters of common

interest and place its report before the Chamber of Princes and the Central Legislature. The Simon Commission thought of this as the first step towards the establishment of the federal system.

Federal Idea and the Round Table Conferences:

The idea of a federal Indian structure was discussed during the Round Table Conference in London in 1930. A Federal Structure Sub-Committee was formed, with Lord Sankey as the Chairman, to lay out the effects and physiognomies of an Indian federal constitution. The Committee was to deliberate on the constituent features of the Federation, the type and structure of the Federation and the Federal Legislature, the strength of both the Houses, the procedure of electing representatives from British India and the Native States; and the constitution, character powers and responsibilities of the Federal Executive. However, the First Round Table Conference was considered to be a failure from the political point of view. The notion of Indian federation was a part of the Gandhi-Irwin Pact as well, which is evident from Gandhi's observation on the future course of the Indian Government:

“Federation is an essential part; so also are Indian responsibility and reservations or safeguards in the interests of India, for such matters as, for instance, defence, external affairs, the position of minorities, the financial credit of India and the discharge of obligation.”

However, Gandhi's presence at the Second Round Table Conference proved to be counterproductive. It further widened the gap between the communities and thus, hindered the progress of federalism. *The federal scheme as it emerged from the Round Table Conference seemed to the Muslims to be an unholy alliance between the Hindus and the British; it was also condemned as an unholy alliance between democracy and despotism. For the next fifteen years, the Muslims were to argue for a weak centre which they thought would preserve their interests. On the other hand, the Hindus argued for a strong centre which they believed the country required. Thus, the federal idea which emerged in an atmosphere of confidence in the First Round Table Conference soon ran into the quicksands of Indian communal politics.*

Federal Idea and the Government of India Act, 1935:

After the disappointment of the Third Round Table Conference in 1932, the British Government issued its White Paper proposing a new Indian Constitution with responsible government in the provinces and dyarchy at the national level. The publication of the White Paper led to the formation of a Joint Select Committee in April 1933. The Report of the Committee accepted the federal principle and made further recommendations regarding the problems facing the proposed federation. The recommendations became the basis of the Government India Act, 1935 which provided for an All India Federation. Under the scheme of the Government Of India Act, 1935, federalism was perceived as union of the Province of British India and those Indian States as acquiesced to join it. It gave the federating units the right to

secede and wasn't premised on the principle of equality of the units. It put forth a highly centralized system and entrusted the Governor-General with special powers. It stated that in case of the break-down of the political machinery, the Governor-General could appropriate all or any of the powers of federal authorities except that of the federal court. This "emergency provision" was the most contentious part of the Act and was subjected to caustic attacks by the Native States and constitutional experts alike. Professor A B Keith expressed his disappointment at the proposed federal scheme in the following words:

"Whether a federation built on incoherent lines can operate successfully is wholly conjectural; if it does, it will probably be due to the virtual disappearance of responsibility and the assertion of the controlling power of the Governor-General backed by the conservative elements of the states and of British India."

Jawaharlal Nehru, in similar tones, criticised the conservative elements in the federal system. He looked upon the federal structure as being reactionary and thus making any real advance difficult. It did not contain "any seeds in it of self-growth". Further, Nehru condemned it as an alliance between the government, the princes, landlords and other reactionary elements. Above all, the Federalism reserved for British control such important items as Indian finance, military and foreign affairs thus rendering the Viceroy even more powerful than he had been. During the Second World War and post-war period there was no substantial progress with regard to federalism. In March 1946 the Cabinet Mission arrived in India to resolve the political deadlock. It rejected the idea of partitioning India. It forwarded its own recommendations for the formation of an Indian Union and setting up of a Constituent Assembly to draw up a permanent Constitution.

Federal Idea After and Before June 1947:

A) Prior to June, 1947:

The twofold hurdles in the path of the newly formed Constituent Assembly, in constructing a federal polity were the communal sentiments of the Muslims and the erstwhile semi-independent Indian States. Hence, to appease these parties, in the Objectives Resolution which was adopted on January 22, 1947, it was announced that Union would be vested with only three powers- Defence, Foreign Affairs and Communication-, and that the States shall be "autonomous units", having all residuary powers.

B) After June, 1947:

On June 3 1947, the plan for the partition of India was announced keeping in view the deteriorating Indian political scenario. This led to a general consensus that the changed circumstances called for a reconsideration of the federal pattern proposed in the Objectives Resolution. Although it wasn't feasible anymore to go back to a unitary system but a strong centre became an overbearing essential. The Union Powers Committee thus observed:

“Now that the partition is a settled fact, we are unanimously of the view that it would be injurious to the interest of the country to provide for a weak central authority which would be incapable of ensuring peace, of coordinating vital matters of common concern and of speaking effectively for the whole country in the international sphere.”

In fact, immediately after the decision to partition the country had been announced, the Union Constitution Committee met and decided that the Plan of the Cabinet Mission was no longer binding in view of the Partition and that, accordingly,

- (a) The constitution of India should be federal with a strong centre;
- (b) There should be three legislative lists, and whatever residue was left unenumerated should go to the Union and not the States;

This changed position was affirmed by the Constituent Assembly and the decision was implemented by the Union Powers Committee.

Federal Idea and the Constituent Assembly of India:

The Objectives Resolution was overturned after the declaration of Partition, but the need and suitability of a federal polity, under the changed circumstances, was not debated thoroughly by the founding fathers. Considering the fact that the reasons which gave rise to the idea of federalism- the communal problem and Indian states- had been rendered redundant, the problem of federalism should have been re-examined. However, the Constituent Assembly took for granted the need for federalism- such was the power of the federal idea shaped by the discussions of the Round Table Conference and embodied in the Government of India Act, 1935. Indeed one of the reasons advanced in the Constituent Assembly for accepting the federal form of government was that Gandhi had given his consent to it in the Gandhi-Irwin Pact. Professor D R Gadgil commented in 1948:

“There has not been a sufficient discussion of first principles or any attempt to lay down the theoretic foundations of the constitutional structure either in the proceedings of the Constituent Assembly of India or in the press or public during or after the work of the Assembly.”

Aspects of Federalism As Seen In the Debates of the Assembly:

The foremost feature which is evident from the proceedings of the Assembly is the ignorant acceptance of the federal idea and the profound lacuna of not re-examining the suitability of federalism in the changed situation of Indian Independence. But although the federal principle was embodied in the Constitution, the term federal was scrupulously avoided much to the chagrin of constitutional pundits and constitutional classifiers. The Constitution spoke of India as a ‘Union’. The use of the term Union seems to have arisen out of a misunderstanding of the nature of federalism. B R Ambedkar sought to explain this ambiguity as follows:

“... the use of the term ‘Union’ is deliberate... I can tell you why the Drafting Committee has used it. The drafting committee wanted to make it

clear that though India was to be a federation, the federation was not the result of an agreement by the States to join a federation and that the federation not being the result of an agreement; no State has the right to secede from it. The federation is a union because it is indestructible... The Americans had to wage a civil war to establish that the States have no right of secession and that their federation was indestructible. The Drafting Committee thought that it was better to make it clear at the outset rather than leave it to speculation or to dispute.”

Although the federal idea was taken for granted, there were a few voices of dissent, but these were voices in the wilderness. A member from Bihar, Shri Brajeshwar Prasad, was completely opposed to the federal idea. He held that in the circumstances of India, federalism would prove to be both a conservative and a divisive force. On the other hand, a few emphasized the need for federalism as a result of the size and complexity of the country. Thus, N V Gadgil pointed out the impossibility of governing a large country like India with its many cultures and traditions by unitary government. *Mr. N V Gadgil observed, “I doubt whether there is a single individual either here or outside or a party here or outside which has stood or even stands for a complete Unitary State.”*

Nature of Federalism:

Federalism in general:

The word “federal” is derived from the Latin word “feuds” which means “a treaty” or “an agreement”. *Prof. Dicey has defined Federal Government as “a political contrivance intended to reconcile national unity and power with maintenance of state rights.”* Historically, the earliest form of political organization was not federal but unitary. But it is the pressure of economic, political and social circumstances which impelled unitary States to enter into alliance with other States for meeting common problems, which initially related to defence. It is with the adoption of the Constitution of the USA in 1787 that the concept of a federal State emerged in a definite shape. Successively a number a countries adopted a federal structure, prominent among them being Canada, Australia and Switzerland. The origin and development of federalism can be summarised broadly in the following three propositions:-

- Though there were loose forms of union in the world between States prior to 1787, modern federalism started with the Constitution of the United States, which is regarded as the model of Federal Constitutions.
- Though the federal principle has been adopted by other countries from the American precedent, each country has introduced variations of its own, as a result of which the world of federalism today consists of different types of federal constitutions, none being an exact replica of the other. Nevertheless, whenever any question arises as to what the ‘true’ federal principle is relating to any point, one must inevitably refer to American Constitutional law for light.

- Even in the United States, owing to activist judicial interpretation as well as constitutional practice, federalism has assumed a shape which the founding fathers could little envisage. Still, the essentials of American federalism are the same after two centuries, namely, a legally enforceable division of powers between two governments- federal and regional- by the written Constitution and the authority of the Courts to interpret, apply and enforce that constitutional distribution of powers.

Federalism is the theory or advocacy of federal political orders, where final authority is divided between sub-units and a centre. Unlike a unitary state, sovereignty is constitutionally split between at least two territorial levels so that units at each level have final authority and can act independently of the others in some area. As a theory of nation-building, federalism seeks to define state-society relationships in such a manner as to allow autonomy of identity of social groups to flourish in the constitutionally secured and mandated institutional and political space. The federal constitution recognizes the special cultural rights of the people, especially the minorities. Federalism tries to facilitate the socio-political cooperation between two sets of identities through various structural mechanisms of 'shared rule'. The broad features of a federal Constitution are as follows:

- A written Constitution
- The Constitution sets up a dual government- one at the Centre and one in the federating units.
- The Constitution distributes governmental powers between the two Governments- federal and regional.
- The foregoing distribution of powers made by the Constitution cannot be changed or amended at the unilateral will of the parties to the federation.
- The distribution of the powers made by the Constitution must be guarded by the Judiciary, which is to interpret the Constitution as the 'fundamental law' of the land and to enforce its provisions against both the Federal and Regional Governments and to invalidate any of their acts which transgresses the limitations imposed upon them by the Constitution.

Indian Federation in Particular:

The political structure of the Indian Constitution owing to its peculiarity has been described in myriad ways. Characterizations such as 'quasi-federal' and 'statutory decentralization' are interesting, but not particularly illuminating. The members of the Assembly themselves refused to adhere to any theory or dogma about federalism. India had unique problems, they believed, problems that had not 'confronted other federations in history'. These could not be solved by recourse to theory because federalism was 'not a definite concept' and 'lacked a stable meaning'. *Therefore, Assembly members, drawing on the experience of great federations like the USA, Canada, Switzerland and Australia pursued 'the policy of pick and choose to see (what) would suit (them) best, (what) would suit the genius of the nation best'. This process*

produced new modifications of established ideas about the construction of federal governments and their relations with the governments of their constituent units. The Assembly, in fact, produced a new kind of federalism to meet India's peculiar needs.

Peculiar Features of Indian Federation:

The Indian Constitution provides for all the essential features of a federation, at the same time it has some striking differences from the typical federal systems of the world:

1) The Mode of Formation:

A federal system of the American type is formed by a voluntary agreement between number of autonomous States. Alternatively, there is the Canadian mode of formation of a federation, wherein provinces of a unitary State may be transformed into a federal union to make them autonomous. The Indian federation resembles the Canadian federation in its centralising tendency, but it goes even ahead of the Canadian example. The federalism in India is not a matter of administrative convenience, but one of principle. The Government of India Act, 1935, set up a federal system in India akin to the Canadian model, "by creating autonomous units and combining them into a federation by the one and the same Act". However, the peculiarity of the origin of the Indian federal system is reflected in the fact that neither before nor under the Act of 1935, the Provinces were in any sense 'sovereign' States. Joint Parliamentary Committee on Indian Reforms commented on this peculiarity as follows:

"Of course in thus converting a unitary State into a federation we should be taking a step for which there is no exact historical precedent. Federations have commonly resulted from an agreement between independent, or at least, autonomous Governments, surrendering a part of their sovereignty or autonomy to a central organism. At the present moment the British India provinces are not even autonomous for they are subject to both administrative and legislative control of the Government and such authority as they exercise has been in the main devolved upon them under a statutory rule-making power by the Governor-General-in-Council. We are faced with the necessity of creating autonomous units and combining them into a federation by the one and the same Act."

The Apex Court observed that India has adopted for itself a loose federal structure as it is an indestructible Union of destructible units. The Constitution, too, has been framed by the 'people of India' assembled in the Constituent Assembly, and the Union of India cannot be said to be the result of any compact or agreement between autonomous States.

2) Position of the States in the Federation:

Unlike the American situation, the provisions for safeguarding 'State Rights' were not included under the Indian constitution, as the States were not 'sovereign entities' before. The position envisaged for the States can be

explained by virtue of the following provisions.

a) Residuary Powers: The residuary powers have been vested in the Union under Article 248 of the Constitution. As above-mentioned the vesting of the residuary powers was transferred to the Union after the declaration of the Partition.

b) Amending power of States: In India, the States have a minuscule role in the amendments of the Constitution. Apart from a few specified matters affecting the federal character, the bulk of the Constitution can be amended without even consulting the States.

c) Central control over States: In spite of the division of powers, in the Constitution there are provisions under which the Centre can exercise administrative and legislative control over the States. Under Article 201, the legislation of a State shall be subject to disallowance by the President if it is reserved for his consideration by the Governor. Again, under Articles 155 and 156 of the Constitution, the Governor of a State shall be appointed by the President and shall hold office 'during the pleasure of the President'.

d) Right to Secession and Alteration of Boundaries: The entire intent of the Constituent Assembly behind describing India as a 'Union of states' in Article 1 of the Constitution and the conscious omission of the word 'federal' by the Assembly has been articulated by B R Ambedkar as above-mentioned. Thus, owing to the unique nature of Indian federation and to save it from further fragmentation, the federating units have no right to secede from the Indian Union. Further by the 16th Amendment of the Constitution in 1963, it been laid down that even advocacy of secession will not have the protection of the freedom of expression.

Moreover, the status of Indian states was made even more subservient to the Union by inserting Article 4(2) in the Constitution, which empowers the Union to reorganise States or alter their boundaries by a simple majority in the process of ordinary legislation. The consent of the States for the same is not required and the President is only required to ascertain the views of the States on the same.

e) No Equality of State Representation: Not only does the Constitution offer no guarantee to the States against affecting their territorial integrity without their consent, there is no theory of 'equality of State rights' underlying the federal scheme in our Constitution, since it is not the result of any agreement between the States. There is no equality of State representation under the Indian constitutional scheme. The number of members for the several States varies from 1 to 31 and this overrides any federal safeguard for protecting the interests of the weaker states as compared to the stronger ones. Further, the Indian Council of States is not a federal chamber in the true sense as it is also comprised of nominated members.

3) Nature of the Polity:

A federal system is characterized by a dual polity wherein in order to

reconcile national unity with State 'rights' there is a logical division of all essential elements of sovereignty. This kind of bifurcation is found in the Constitution of the United States which created a dual polity, with a dual citizenship, a double set of officials and a dual system of Courts. However, keeping in view the atypical form of the Indian federation, there are serious departures from the dualistic pattern.

a) Citizenship: The Indian Constitution, unlike the US Constitution and alike the Canadian model, doesn't lay down any double citizenship, but one citizenship, i.e., the citizenship of India and birth or residence in a particular State doesn't confer any distinct status as a citizen of that State.

b) Public Services: The Constitution of India provides for the creation of All-India Services that are common to the Union and the States. Member of the Indian Administrative Services can be employed under any Union department or a State Government and they are required to administer both Union and State laws. Further, even while serving under the State Government, a member of the Administrative Services can be dismissed only by the Union Government, though the State Government is competent to initiate disciplinary proceedings against the member.

c) System of Courts: In India, there is no division of judiciary between the Union and the State Governments. A unified system of courts exists, headed by the Supreme Court, which administer both the Union and the State laws, accordingly applicable to the cases.

d) The machinery for election, accounts and audit is also similarly integrated.

e) Surrender of Sovereignty: The Constitution of India empowers the Union to entrust its executive functions to a State, by its consent, and a State to entrust its executive functions to the Union, similarly. No question of 'surrender of sovereignty' by one Government to the other stands in the way of this smooth cooperative arrangement.

4) Strong Central Bias:

The Supreme Court in *State of West Bengal v. Union of India* observed, that in the Indian Constitution there is a distribution of powers between the Union and the States as under a federal system, the distribution has a strong central bias and the powers of the States are hedged in with various restrictions which impede their sovereignty even within the sphere limited to them by the distribution of powers basically provided by the Constitution.

The scheme of the distribution of legislative powers between the Union and the States is contained in Articles 245 and 246 of the Indian Constitution r/w Schedule VII. In adopting the three lists, the Constitution makers followed the precedent of the Government of India Act, 1935, but in tilting the balance in favour of the Centre, the founding fathers went beyond all existing precedents, by inclusion of various special provisions.

(a) During Normal Times: The legislative powers of the Union can be

enlarged at the costs of the State legislative powers even during normal times.

(i) In the national interest: Parliament has the power to enact laws with respect to any subject-matter mentioned in the State List, for a temporary period, if the Council of States by a two-third majority declares it's necessary to do so in the national interest.

(ii) By agreement between States: There can be an extension of the jurisdiction of Union Legislature over by consent of the State Legislature in two situations:-

- The legislatures of two or more States can resolve that it be lawful for the Parliament to enact laws on any subject-matter contained in List II with respect to them.
- A State can adopt any Union legislation by passing a resolution in the State Legislature in that behalf.

(b) During Emergency: The Indian Constitution enables the federal government to acquire the strength of a unitary system in emergencies and various provisions are contained in Articles 352, 356 and 360 for the same.

(c) Financial Powers: In the matter of distribution of the taxing power, the more important resources having been allocated to the Union, the States have to depend largely upon financial assistance from the Union and there is an elaborate system for the making of grants and distribution of a share of the proceeds of some taxes by the Union to the States. Even the borrowing powers of the States have been made subject to the Union's consent in certain cases.

Thus, it can be concluded that in trying to avoid the demerits of the federal system and remodelling it to suit the Indian problem, the essence of federal system was diluted to a large extent. This led Prof. K C Wheare to observe that the Indian Constitution provides:

"a system of Government which is quasi-federal... a Unitary State with subsidiary federal features rather than a Federal State with subsidiary unitary features."

D D Basu, on the other hand, states that "India is a case sui generis". He observes:

"the Constitution of India is neither purely federal nor purely unitary but is a combination of both. It is a Union or composite State of a novel type. It enshrines the principle that in spite of federalism the national interest ought to be paramount."

Certain Trends in Indian Federalism:

India's federalism during the last 50 years had two phases: three decades of centralized federalism followed by cooperative and competitive federalism. Unitary features of India's Constitution and planned development led to strong central dominance in the first phase, with the states in a subordinate position. The momentum of impressive initial growth did not last. The late 1970s saw a weakened Congress party, the emergence of coalition politics, and a shift in the Centre-states power balance. Growth followed liberalization and moves

toward decentralization, but this was accompanied by an accentuation of regional disparities and fiscal imbalances. A major factor in the negative results has been weaknesses in the intergovernmental transfer system. Further, the Indian Constitution has also been dubbed as an “asymmetrical federalism” by many scholars owing to the preferential treatment it gives to different constituting entities. This preferential treatment has had an impact on the Centre-State relation as well as State-State relations.

A) Centralized Federation:

Post-independence, the Centre established its superiority over the States by adopting a number of measures. One was the Planning Commission, Jawaharlal Nehru’s vehicle for getting the states to adopt the strategy of planning led by the public sector in order to ensure rapid national development. Another was the location of basic industries in the public sector, mostly under central control. A third measure was centralization of power to regulate the development of private industries through licensing and control. This was followed by and, in 1969, acquisition of what was called the “commanding heights of the economy” through nationalization of major commercial banks. Amidst all these the share of States in total revenue expenditure was not reduced and moreover, the States were directed to implement the Centrally Sponsored Schemes and achieve the objectives of the central plans. Inroads were thus made into state subjects like rural development, health, and family welfare. The inclusion of ‘social and economic planning’ as an entry in the Concurrent List paved the way for these inroads and to a great extent, denuded State powers in the legislative scheme of distribution of powers.

Due to the increasing expenditure, States became more and more dependent on the Centre. *Through central planning, control over industrial policy and financial institutions, and the All-India Services, the states were reduced to a subordinate position. In its report submitted in 2002, the National Commission to Review the Working of the Constitution (NCRWC) acknowledged that “the real source of many of our problems is the tendency of centralization of powers and misuse of authority”.* Dissatisfaction with centralized federalism became widespread once the Congress party ceased to govern both the states and the Centre. In the late 1980s, a panel appointed to review Centre-state relations (the Sarkaria Commission) recommended that the states be allowed more autonomy. It was not until a non-congress coalition government came to power in 1989 that the Inter-state Council (the forum contemplated in the Constitution for resolving interstate issues) was set up.

B) Cooperative-Cum-Competitive Federalism:

The Constituent Assembly was the foremost body to adopt the concept of ‘cooperative federalism’. This trend emerged post World War II, has been characterized by the increasing interdependence of federal and regional governments- a development, it is usually argued, that has not destroyed the

federal principle. This concept is clearly different from that prevailing when the federal systems of the United States or Australia were set up, and which gave rise to Dr. Wheare's definition of federalism: 'The general and regional governments of a country shall be independent each of the other within its sphere'. Cooperative federalism produces a strong central, or general, government, yet it does not necessarily result in weak provincial governments that are largely administrative agencies for central policies. Indian federalism has demonstrated this.

Cooperative federalism, according to A H Birch, is characterized by:

"... the practice of administrative cooperation between general and regional governments, the partial dependence of the regional governments upon payments from the general governments, and the fact that the general governments, by the use of conditional grants, frequently promote developments in matters which are constitutionally assigned to the regions."

This definition applies to India with the exception of conditional grants, a device rarely used under the Constitution. In spite of the centralized structure of the Indian scheme there have been infrequent transgressions by the Union in the jurisdiction of provincial governments and that so mostly by the Union Executive. The Supreme Court in *State of Rajasthan v Union of India*, accepted the presence of cooperative federalism' in the Indian constitutional scheme and quoted Granville Austin in support of the same. Chief Justice Beg called the Constitution 'amphibian', "...If then our Constitution creates a Central Government which is 'amphibian', in the sense that it can move either on the federal or on the unitary plane, according to the needs of the situation and circumstances of a case..."

Indian Federalism is historically a product of traditional as both under the ancient Indian empires and during the Mughal regime, the constituents units were enjoying a certain degree of autonomy. According to M.S. Setalvad, "the founding fathers favoured a strong centre because they felt that having regard to the diverse nature of the population, the number of religions and sects which divided it and the fissiparous tendencies which it had a number of occasion shown, on any emergency arising affecting either the country or the states by the breakdown of its constitutional machinery, the central Government should have power to take over its administration." It was on pragmatic consideration, provided that only those powers, concerned with the regulation of local problems, should be vested in the states; the residue, especially those which tend to maintain the economics, industrial and commercial unity of the country was to be left to the union. While disturbing powers, unconsciously, the foundations of a cooperative federalism were being laid. This new spirit was to depend not so much on institutional devices but, "on the harmonious working of the federal power structure, in the stability and effectiveness of the centres, in a just system of resolution of centre-state and Inter-state conflicts and in adequate institutional system for consultation,

coordination, interchange and integration.”

The Indian constitution was framed when the idea of co-operative federalism was prevalent. Therefore, the constitution framers were aware of the need for inter-state forums and thus incorporated Article 263. This Article in our constitution was borrowed from a similar provision in the government of India Act 1935, providing for the creation of an Inter Provisional Council. However, Article 263 was rarely used before the V.P. Singh Government set up a regular Inter-State Council (ISC) in 1990 by a presidential ordinance. But there has been another inter-governmental forum in India that is Planning Commission, which is set up outside the framework of the constitution by a cabinet resolution of the Nehru Government in 1950 that has been very significant in many ways in the field of economic-policy making and planning than the Inter State Council has been in the political field. “The Planning Commission is neither a constitutional body nor a statutory one. It owes its existence to an executive order of the central government. Its influence on the deliberations of the Central Government as well as on union-state relationship has, however, steadily grown and it now wields decisive influence on both centre and states. The planning Commission is a bone of contention between the centre and the state since its inception from 1950. It has assumed the stature of parallel government. On the suggestions of the Planning Commission, another inter-governmental agency called National Development Council was constituted on August, 1952 to serve as a highest reviewing and advisory body in the field of planning. Besides, Planning Commission, National Development Council and Inter-State Council, other Inter-governmental forums in India are the Chief Minister’s Conferences, Governor’s Conferences, Inter-Governmental Ministerial Conferences, Chief Secretaries Conferences, Zonal Councils, Inter-state Tribunals and National Water Resources.

With liberalization of the economy in the 1990s came delicensing of industries and the restoration of the powers of the states over industrial policy. They also gained more room to pursue their own social and economic priorities. States governed by members of the ruling coalition came to wield considerable power in the union government. Judicial rulings and the party composition of the upper house have blunted the edge of Article 356 of the Constitution that previously enabled the Centre to dismiss state governments. India’s federalism, it is believed, is moving in the direction of cooperative federalism. Decentralization, it would appear, has taken firm roots. *What exactly was connoted by the term “cooperative federalism” in the Indian context was not spelled out clearly by anyone. To the states, the idea was to get the Centre to consult them in all matters that concerned them. In practice, there was no question of the states being given veto power over any decision of the central government, as cooperative federalism in its one formulation would have it. Even so, an environment was created whereby the states came to have a larger say in the Centre’s policies than before, with both positive*

and negative results.

The practice of “cooperative federalism” paved the way for “competitive federalism” in India. Competitive federalism can refer to state of affairs between regional governments (horizontal competition) and between central and regional governments (vertical competition). The idea of horizontal competition between the regional governments is advocated by those wishing to apply free market economic principles to federalism. In 1994, for example, Wolfgang Kasper (1994) identified four “principles” of competitive federalism that Australia needed to adopt to compete on the international economic stage:

- *subsidiarity*, which requires that decision making be centralised only when it can be shown that this would be more efficient than if it were devolved to each state;
- *rule of origin*, products and services should be accepted anywhere in the country, once they have been certified in one state;
- *assignment of tasks*, that is, the overlap between State and Commonwealth responsibilities should be removed to reverse the gradual encroachment by the Commonwealth into policy areas traditionally regarded as the States’ domains and responsible for a doubling up of regulation and administration; and
- *fiscal equivalence*, this holds that each unit of government should be responsible for its own revenue raising and people should pay in full for government services (“user pays”) and, so, remove the practice of free riding.

The implications of competitive federalism in India are not good. Not all states are in the same league. Disparities have increased sharply. With the spirit of competitive federalism prevailing among the states, almost every state is trying to lure investors from other states and from abroad. But only those having a good infrastructure and an investor-friendly environment are able to attract private investment.

Although to a certain extent there is a need for competitive federalism in India especially due to the precarious financial and political scenario of the country in the past 5 years, the existence of certain institutional features conspire against the spirit of competitive federalism. These features are well entrenched, but not completely irreversible. For starters, the nature of India’s fiscal federalism is characterised by a severe vertical imbalance. This means that the states raise relatively little in the way of revenues, yet are saddled with the bulk of the expenditures. By design, states are beholden to generous transfers from Delhi in order to plug the financing gap. As a result of these skewed incentives, there is a still a tendency among some state leaders to believe that it is their job not to look around for ideas about best practices worth implementing, but to maximise the amount of monetary transfers they can procure from the central government. This exhibits the vestiges of an old tendency, whereby state leaders would pin their hopes on Delhi to bail them out and, if that failed, resort to playing the hapless victim “neglected” by the

Centre. Ironically, while states lobby for greater transfers, many of them struggle mightily to fully utilise the funds that are already provided to them. Even if India's fiscal federalism could be rewired, its states are not exactly paragons of liberal democracy, providing fertile ground for robust debate about ideas on policy reform. Across India, there is a worrying concentration of power in most state capitals in the hands of the chief minister. This is not to let the Centre off the hook for lack of learning across the states. The simple fact is that there does not appear to be a meaningful venue for an ideas-based exchange between the states. When the first Five-Year Plan was being drawn up in 1950, the government dreamed up the National Development Council (NDC), a body ostensibly created to allow states to comment on the Plans as well as to debate and discuss important social and economic policy issues of the day. Fast-forward six decades and no one believes the NDC is a well-functioning entity.

If India's states are to truly serve as effective laboratories for improving public policy, they must be liberated from these institutional impediments. Institutions are notoriously sticky, yet there are a few signs of hope on the horizon. Notwithstanding incentives to the contrary, India's states often do manage to spur policy experimentation—but it just is not always clear how these experiments add up. We have Chhattisgarh linking smart cards to the Public Distribution System, Andhra Pradesh evaluating the impact of contract teachers on primary education, Gujarat reforming electricity by linking higher user fees to guaranteed service provision—the list goes on. This demonstrates that state governments can take initiative and ministers are able to carve out space to experiment when the conditions are right. But the next step is much harder: fostering an environment of learning across states.

C) Asymmetrical Federalism:

“Asymmetric federalism” is understood to mean federalism based on unequal powers and relationships in political, administrative and fiscal arrangements spheres between the units constituting a federation. Asymmetry in the arrangements in a federation can be viewed in both vertical (between centre and states) and horizontal (among the states) senses. If federations are seen as ‘indestructible union of indestructible states’, and centre and states are seen to exist on the basis of equality; neither has the power to make inroads into the defined authority and functions of the other unilaterally. However, such ‘purists’ view of federalism is rarely, if at all, seen in practice. Even when the constitution guarantees near equal powers to the states, in the working on federal systems centre dominates in political, administrative, as well as fiscal spheres.

Ronald Watts makes a theoretically fruitful distinction between political asymmetry which exists in every federation as to the geographical and demographic sizes of the units and constitutional asymmetry which “refers specifically to differences in the status or legislative and executive powers

assigned by the constitution to the different regional units". India is characterised by both these types of asymmetry. One glaring example of political asymmetry in India is that the states are represented in the Rajya Sabha not on the footing of formal equality as in the United States of America but on the basis of their population. Thus, the state of Uttar Pradesh has 31 seats whereas states from the north-east (such as Meghalaya, Mizoram, Manipur) and Pondicherry and Goa have just one seat each in the Rajya Sabha. The literature on Indian federalism has recently been applying the concept of constitutional asymmetry under which the states of Jammu and Kashmir, Nagaland, and Mizoram enjoy certain special position and powers in the Constitution not enjoyed by others. Besides these asymmetries at the state level, there are some sub-state asymmetries in the Indian Constitution, as in the case of the Union Territories and their administration. The specific asymmetries found in the Indian Constitution are many. First, there are specific asymmetries with regard to administration of tribal areas, intra-state regional disparities, law and order situation and fixation of number of seats in legislative assemblies in relation to states of Maharashtra, Gujarat, Assam, Manipur, Andhra Pradesh, Sikkim, Arunachal Pradesh and Goa in the Constitution of India. Second, the governors of Maharashtra and Gujarat have a "special responsibility" for the establishment of separate development boards for certain backward regions of these states with equitable allocation of development funds and provision of facilities for technical education, vocation training and employment opportunities. Third, the president of India is under the constitutional obligation to ensure the setting up of a committee of the legislative assembly in the states of Assam and Manipur consisting of members elected from tribal/hill areas to look after the welfare of those communities. Fourth, the president of India is to ensure "equitable opportunities and facilities" for the people in different regions of Andhra Pradesh in respect of public employment and education and the establishment of a central university in the state. Fifth, the legislative assemblies of Sikkim and Goa "shall consist of not less than 30 members". The governor of Sikkim is under certain "special responsibility for peace and for an equitable arrangement for ensuring the social and economic advancement of different sections of population" of the state. Sixth, the governor of Arunachal Pradesh has "special responsibility with respect to law and order" and to act in his "individual judgment" after consulting the council of ministers.

Asymmetry in administrative, political and economic spheres in federal systems is unavoidable and in fact, may be necessary not only to 'come together' but also to 'hold together'. However, while transparent asymmetric arrangements that can be justified on grounds of overall gains to the federation contribute to nation building, the discriminatory policies followed purely on short term political gains can be inimical to the long term interests and stability of federalism. The rationale for asymmetry arises from the premise that

interalia, federalism is a rational bargain of various units. Thus, the terms of joining the federation depend on the bargaining strength. Further, even in a federation with no provision for exit, political alignments determine the bargaining strength of governments at different units in their interaction with centre and this may result in discriminatory treatment of various units. The potential for discrimination is higher in more centralised federations and is inversely related to the political strength of the central government *vis-à-vis* the various regional governments.

Judicial Interpretation of Indian Federalism:

The Supreme Court in a variety of cases has given a favourable interpretation of the federal nature of the Indian polity. In *Automobile Transport v. State of Rajasthan*, Justice S.K. Das, observed that the essential features of a 'federal' or 'quasi-federal' structure were present in the Indian Constitution: "The evolution of a federal structure or a quasi-federal necessarily involved, in the context of the conditions then prevailing, a distribution of powers and a basic part of our Constitution relates to the distribution with the three legislative lists in the Seventh Schedule. The constitution itself says by Article 1 that India is a Union of States and in interpreting the Constitution one must keep in view the *essential structure of a federal or quasi-federal Constitution, namely, that the units of the Union have also certain powers as has the Union itself...*"

In the *Reference Case* of 1965, Chief Justice Gajendragadkar, speaking for the majority observed that, like other federal States, the Indian Constitution distributes powers between the Union and the States and that in order to maintain this federal distribution, the Judiciary as made the sole interpreter and protector of the Constitution, which cannot be changed by the process of ordinary legislation by either the Union or a State Legislature. He characterised the Indian Constitution as a 'federal Constitution'.

Even in 1973, some of the Judges in *Kesavananda v. State of Kerala*, considered 'federalism' as one of the 'basic features' of the Constitution. However, in the very next year, Justice Krishna Iyer diluted the interpretation given in *Kesavananda case*, by describing the Indian federation as "*an Indo-Anglian version of the Westminster model with quasi-federal adaptations*". Again in 1977, Justice Bhagwati described our Constitution as a 'federal or quasi-federal' Constitution.

At the same there have been decisions of the Supreme Court which have dampened the federal nature of the Indian Constitution. In *State of West Bengal v. Union of India*, the Supreme Court held that although both the Union and the States derive their powers from the same Constitution, the States would have no legal rights as against the overriding powers of the Union, because of a general theory of paramountcy or superiority of the Union. In *State of Karnataka v. Union of India*, Chief Justice Beg promulgated the theory that Indian Constitution sets up a '*pragmatic federalism*', "*which is*

overlaid... by strongly unitary features... one wonders whether such a system is entitled to be dubbed 'federal' in a sense denoting anything more than a convenient division of functions... The function of 'supervision' is certainly that of the Central Government with all that it implies."

In substance, the learned Chief Justice degenerates Indian federalism under the Constitution to the status of the devolution rules under the Government of India Act, 1919. A close examination of his observations would reveal where his fallacy lies. The learned Chief Justice relies on the degree of control which the Constitution has conferred on the Central Government. However, the Bench and the Bar should be concerned with the justiciability of the division of powers made by a Constitution. If the latter feature exists, it can hardly be said that division of powers made by the Constitution is only 'convenient' or that the federalism set up by it is merely 'pragmatic'. Thus, it can be concluded that the deviations in both these cases are based on erroneous premises. The right stand was taken by Justice Kailasam (lone minority) in the *Karnataka case*:

"In the distribution of powers... there is a strong tilt in favour of the Union... But the Union Government cannot claim any power which is not vested in it under the Constitution. There is no *overriding power* with the Union Government. It cannot deal with the State Government as its delegate, for the source of the power for the Union as well as the State, is the Constitution and the Union Government *cannot claim any powers over the State* which are not found in the Constitution..."

"The observations made in the *West Bengal case*... are not in conformity with the otherwise consistent view that the Constitution is supreme and that the Union as well as the States will have to trace their powers from the provisions of the Constitution and that the *Union is not supreme*..."

Conclusion:

Much has been written and debated about the nature of Indian polity. It has been frequently criticised for being unlike the American Federation and overly centralized like a unitary set-up. *But as Prof. W T Wagner has said, that the question whether a State is unitary or federal is one of degrees and the answer will depend upon "how many federal features it possesses". Livingstone, has in the same strain observed, that federation is a more 'functional' than an 'institutional' concept and that any theory which asserts that there are certain inflexible characteristics without which a political system cannot be federal ignores the fact "that institutions are not the same things in different social and cultural environments".* By a general perusal of the Indian constitutional scheme it becomes very difficult for a scholar to deny the deeply-embedded federal spirit in the Constitution. It is true that there is wide scope for deviations from the federal scheme, but the reason for the same can be located in the extra-ordinary circumstances under which the Indian polity came together. The founding fathers of the nation tried to provide

solutions for safeguarding the nation in all exigencies and in doing so they were compelled to vest superior powers in the Union, but at no point did they envisage a dictatorial Centre.

Another, repeated allegation is that the Central bias has increased overtime and India is overbearingly taking the shape of unitary government, little merit is found in the same. D D Basu has observed that the federal system has not withered away owing to the increasing impact of Central bias would be evidenced in a number of circumstances which cannot be overlooked:

- The most conclusive evidence of the survival of the federal system in India is the co-existence of the Governments of the parties in the States different from that of the Centre.
- That federalism is not dead in India is also evidenced by the fact that new regions are constantly demanding Statehood and that already the Union had to yield to such demands in many cases.
- That there is the strong agitation for greater financial power for the States.

Jawaharlal Nehru said, "... all our paper Constitutions will become useless and purposeless... If India goes down, all will go down; if India thrives all will thrive; and if India lives, all will live..."

There is ample proof of India's thriving and survival as a federation. It can also be submitted that it is the very peculiarities of the Indian federation that has contributed to its successful working over the years. The need of the hour at the time of independence was for a strong constitution and not to conform to set standards which may eventually fail.

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Internationalism, Nationalism and India in 21st Century

*** Chandni Saxena**

Abstract- *The present era of the world is that of globalization. No state or nation, however big or small, can survive isolation. The politics and economies of all the peoples are so deeply intertwined that isolated survival of any nation is extremely difficult. The world today is looking for a political ideology that advocates greater cooperation among nation-states in pursuit of peace through the creation of international laws and institutions. Therefore, the term internationalism and its connotations is a hot topic of debates throughout the world. It is primarily a liberal ideology whose overriding goal is the promotion of peace through alignment of what might otherwise be conflicting interests. Nationalism is said to be directly opposed to internationalism. It is an ideology which holds that a nation is the fundamental unit for human social life, and takes precedence over any other social and political principle. It is a shared group feeling in the significance of a geographical and sometimes demographic region seeking independence for its culture or ethnicity that holds that group together. It then, is a belief or political ideology that involves an individual identifying with or becoming attached with one's nation. India today sits at the fence between the two concepts. As the world's second most populous country and with world's sixth largest military expenditure, third largest armed forces, seventh largest economy by nominal rates and third largest economy in terms of purchasing power parity, India is a regional power, a nascent global power and a potential superpower. Since independence and even before that, India has been a strong proponent of world peace and economic, cultural and political co-existence. Despite all this, it is today battling with cross-border terrorism sponsored by Pakistan, territorial claims by China and insurgency in Kashmir-again sponsored by Pakistan. All this and more has compelled the country to redefine nationalism which involves a belligerent approach towards countries like Pakistan and a tolerant, peaceful and amicable approach towards others.*

Key Words- Internationalism, Nationalism, Globalization, Political Ideology

“Internationalism is a social and political theory, a certain concept of how human society ought to be organized, and in particular a concept of how the nations ought to organize their mutual relations.”

– Christian Lous Lange

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The present era of the world is that of globalization. No state or nation, however big or small, can survive isolation. The politics and economies of all the peoples are so deeply intertwined that isolated survival of any nation is extremely difficult. Thus, after two Great Wars, ever increasing armament race and the monstrous proportions of terrorism, there has been a great surge in global debates on exploring ways to construct a more peaceful order. The world today is looking for a political ideology that advocates greater cooperation among nation-states in pursuit of peace through the creation of international laws and institutions. Therefore, the term internationalism and its connotations is a hot topic of debates throughout the world. It is primarily a liberal ideology whose overriding goal is the promotion of peace through alignment of what might otherwise be conflicting interests. The internationalists believe that the people of the world should unite across national, political, cultural, racial or class boundaries to advance their common interests, or that the governments of the world should cooperate because their mutual long term interests are of greater importance than their short term interests.

Nationalism is said to be directly opposed to internationalism. It is an ideology which holds that a nation is the fundamental unit for human social life, and takes precedence over any other social and political principle. It is a shared group feeling in the significance of a geographical and sometimes demographic region seeking independence for its culture or ethnicity that holds that group together. It then, is a belief or political ideology that involves an individual identifying with or becoming attached with one's nation.

Thus, it seems that whereas internationalism is universal, all-encompassing and comprehensive concept advocating peace and growth of the whole world, nationalism is a more restricted (or restricting) phenomenon which ignites wars, and mutual bitterness among nations. Most internationalists believe that the root cause of the two Great Wars lie in belligerent nationalism (or jingoism) and the same may lead to another such catastrophe. Nationalism, on the other hand, is now safely ensconced in the modern mindset of the people and with several cross-country tensions and peace violations of one country against another, it is further getting boosted.

India today sits at the fence between the two concepts. As the world's second most populous country and with world's sixth largest military expenditure, third largest armed forces, seventh largest economy by nominal rates and third largest economy in terms of purchasing power parity, India is a regional power, a nascent global power and a potential superpower. Since independence and even before that, India has been a strong proponent of world peace and economic, cultural and political co-existence. It has played an influential role in such international organizations like United Nations, BRICS, East Asia Summit, World Trade Organization etc. It has participated in several UN peacekeeping missions and in 2007, it was the second largest troop contributor to United Nations. Despite all this, it is today battling with

cross-border terrorism sponsored by Pakistan, territorial claims by China and insurgency in Kashmir—again sponsored by Pakistan. All this and more has compelled the country to redefine nationalism which involves a strong approach towards countries like Pakistan and a tolerant, peaceful and amicable approach towards others.

This paper is an attempt to understand the theoretical and pragmatic meaning and connotations of the two concepts of internationalism and nationalism and the position of India in their context.

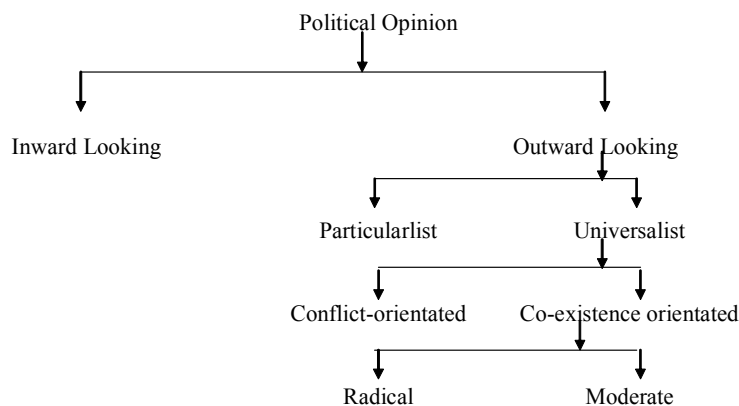
I

Internationalism

“Internationalism is a community theory of society which is founded on economic, spiritual and biological facts. It maintains that respect for a healthy development of human society and of world civilization requires that mankind be organized internationally.”

- Christian Lous Lange

As the word suggests, internationalism is a set of beliefs which encompasses the whole world. It advocates, in its strict political connotations, laws, organizations, exchange and communication among countries which would maintain and reinforce peace and security. The concept has been given different names in different space and times. Thus, India calls it ‘Vasudhaiv Kutumbakam’, Kant uses the term ‘universalism’ and Thucydides and Thomas Hobbes crudely give it the name of ‘Realism’. All these terms involve world politics and international relations, however, with underlying variations. But despite variations, the goal remains unchanged—a world order which advocates a peaceful, safe and secure human life. There are some other usages of the term internationalism. Thus, any autocrat or dictator having global ambitions can be an internationalist. Or socialism which dreamt of world revolution can also be internationalist. But they worked on another level or plane where there was complete disregard for institution building and cooperation for the sake of peace and security. Kjell Goldmann has aptly described the different usages of the term internationalism through a figure:¹



To explain the figure, Goldmann says that any political opinion can either be inward looking focusing primarily on opinion-holder's own country or it can be outward looking focusing on the rest of the world. An internationalist opinion would compulsorily be outward looking. The outward looking opinion can be particularist if it aims to further the interests of one's own country and it can be universalist if it aims to realize values which are universally applicable. A universalist outlook can again be of two kinds conflict-orientated and co-existence-orientated. The former asserts victory and then dissemination of one's own ideals over other ideals. This claims universal applicability of the winning ideal with total disregard to other ideals. The latter on the other hand, advocates peaceful co-existence between competing universal ideals. The difference between the two lies in the importance given by each to the ideal of peace and security. The over-riding purpose of co-existence-orientated internationalism is to solve the problem of international peace and security whereas that of conflict-orientated universalism is to solve other such problems like justice, equality etc. "It is important to note that whereas conflict-orientated universalism is straight-forward, co-existence-orientated universalism entails of dualism epitomized by making of war to end wars and by the accommodation of aggressors to preserve peace. When conflict-orientated internationalists meet with opposition, their problem is strategic: how do we gain the upper hand in this confrontation? When co-existence-orientated internationalists have to face up to an adversary who does not share their ideals they face a dilemma that is a characteristic feature of their entire outlook."²

Now, co-existence-orientated internationalism is again of two forms—moderate or mild internationalism and radical internationalism. In *International Encyclopaedia of the Social Sciences*, Herz writes that mild internationalism aims at a world where states remain the primary units which are self-determining and democratic and where disputes are settled by mediation, arbitration and application of international law in context to growing contact and co-operation. The object of radical internationalism is to replace the system of sovereign states with that of world government.³

This analysis by Kjell Goldmann of different usages and faces of internationalism can aptly be used to understand the tenor and conditions of world politics in modern times.

Whenever the world and particularly Europe has faced wars, mass destruction or bloodshed, its need and desperation has led it to explore the ideas and instrumentality of establishing and maintaining peace and order. Thus the 'Reign of Terror' in France and thereafter the incessant wars waged by Napoleon in nineteenth century created such trepidation and jitters among European countries that they took hesitant but reactionary steps of forging Holy Alliance and Concert of Europe. This may be called the first step towards internationalism in its strict political framework. Its aim was to create lasting

peace in Europe. But with such reactionary powers like Austria, France and Russia attempting peace, it was more of a mockery than a serious attempt. This failure and several other upheavals slowly led the world towards First World War which again led to mass destruction and bloodshed. Once again the world scrambled towards attempts for lasting peace. After Paris Peace Settlement and League of Nations, several other attempts were also made which could ensure peaceful co-existence. Washington Conferences (1921-22), Genoa Conference (1922), Locarno Treaties (1925), Kellogg-Briand Pact (1928), Young Plan (1929), World Disarmament Conference (1932-1933) and what not! But nothing could satisfy the truculence of Germany, Italy or Japan. Another World War followed with even more ferocity and obliteration. Internationalism took a back seat as no intellectual appeal could stop the genocide. Hitler and Mussolini were unstoppable and for sometime, looked invincible. But like all other wars, this one also came to an end leaving the world gasping for peace and cooperation. Once again debates on internationalism, mutual co-existence and unilateralism ensued. UNO came into existence and the world slowly limped back to normalcy and some order. But was the dream of internationalism ever fully realized? Post World War II, other conflicts continued to pose challenges. Cold war, warring Jews and Arabs in Palestine, Korean War, Suez Canal Crises, Hungarian Rising, Belgian Congo Civil War, Cyprus, Russian invasion of Afghanistan and finally Kashmir has kept the UN busy ever since its inception. The world has several times come to the threshold of third World War. Internationalism seems to be challenged at every step. Hans Morgenthau, an American Political Scientist and a proclaimed founder of post-World War II Realist theory, disdained as irrelevant and hard-headed pursuit of peace. In his seminal study "*Politics Among Nations*", Morgenthau dismisses the futile idealism of UNESCO's educational programs. History had taught Morgenthau that "World understanding" can never guarantee peace because of the unreliability of human nature and the complex interests of states.⁴ Countries, in other words, are like human beings, however at lower echelons. The frailties of human behaviour, its ambitions, thirst for power and dominance and selfish motives and actions find resonance in national policies. As English statesman Lord Palmerston said, "Nations have no permanent friend or allies; they have only permanent interests." In present day world, nations constantly evaluate and re-evaluate their preferences in the international arena and strategies. There is no place for romanticism in diplomacy. It has to be cold-blooded and utterly pragmatic. The truth of the matter in 21st century world is that internationalism is fine as long as it is limited to economic, cultural or to some extent, environmental concerns and co-operation. When it comes to hard policies, it is to each its own.

II Nationalism

“New Age values are conscious evolution, a non-sectarian society, a non-military culture, global sharing, healing the environment, sustainable economies, self-determination, social justice, economic empowerment of the poor, love, compassion in action, going beyond religious fundamentalism, going beyond nationalism–extreme nationalism culture.”

– Deepak Chopra

“Patriotism is usually stronger than class-hatred, and always stronger than internationalism.”

– George Orwell

“We deny your internationalism, because it is a luxury which only the upper classes can afford; the working people are hopelessly bound to their native shores.”

– Benito Mussolini

These quotes present a paradox which the world is facing today. It dangles between internationalism and nationalism, highly unsure which way to sit. A step towards one dilutes the interest of the other. Internationalism is, in general, opposed to nationalism which, in turn, sometimes takes the form of jingoism or chauvinism. Fanatical devotion to one's nation has caused two World Wars and even today rules the roost in international politics, causing severe damage to the little but concerted steps towards an international society.

Nationalism is a complex, multidimensional concept involving a shared communal identification with one's nation. It is expressed as a political ideology oriented towards achieving and maintaining communal autonomy and sometimes sovereignty, over a region of historical significance to the group.⁵ It beholds common culture, language, religion, political goals and/or a belief in a common ancestry. It involves national identity and patriotism which comes from social conditioning and personal behaviours that supports a state's decisions and actions. National flags, national anthem and other symbols of national identity are commonly considered highly important symbols of national community.

There can be identified several different strands of nationalism. Thus, a state can be limited to one ethnic, cultural, religious or identity group having common political or cultural backdrop. Then, in another form of nationalism there can be different ethnic, cultural, racial, lingual or religious groups bound by one common secular constitution giving equal rights to all its citizens irrespective of their faiths or beliefs. In 21st century the former strand of nationalism is, more or less, a rarity as very few countries in the world are constituted by same ethnic or racial or religious groups. Even Islamic countries, having one common religion are not one as they too have several ethnic groups within Islam. Majority of nations today fall into the second strand of nationalism wherein lies a mixed population with varied cultural, ethnic, racial or religious credentials. It's a major challenge for all these nations to knit so much of

diversity into one nationhood. Bloody civil wars have been fought within the countries among different groups pronouncing their own sectarian definitions of nationalism. India, as one nation, has been partitioned into three parts which are squabbling over their own petty notions of nationalism. An aggressive strand is not missing altogether.

This brings to highlight another aspect of nationalism which has directly fuelled the two World Wars. Nationalism in early 20th century Europe placed the interests of one country over those of others. Most Europeans of pre-Wars era believed in cultural, economic and military supremacy of their own nation. Their attitudes and overconfidence were further fired by jingoistic press reporting. Nationalism gave citizens excessive confidence in their nation, their governments and their military strength. It assured them that their country was fair, righteous and without blame. In contrast, nationalist ideas demonized rival nations, caricaturing them as aggressive, scheming, backward, deceitful or uncivilized. This kind of nationalism convinced people that their nation was threatened by the scheming and hungry imperialism of its rivals. Imperialism and militarism along with nationalism contributed to a mass delusion that war was both necessary as well as winnable. Before World War II, dictators like Hitler and Mussolini ignited such belligerent form of nationalism that every act seemed justified if committed in the name of nationalism— even mass murder and destruction.

It is this kind of nationalism which led to the formation of such international organizations like League of Nations, United Nations Organization, G-8 etc. Threat to world peace and order caused by such confrontationist nationalism has led the social scientists to have strong leanings towards internationalism. At least this can ensure world peace and security.

But in this era of 21st century, does internationalism have a fair chance of fair play? I have serious reservations on the issue. The world today is increasingly becoming a chaotic place to live in. Global terror organizations and their nexus with the so called democratic countries have led to disdainful covert warfare leaving no continent untouched and it is a worrisome trend. This, mixed with smash-and-grab approach of the foreign policy of different countries make a deadly concoction leading to more disarray. This chaos and disorder has resulted into the assassination of Russian Ambassador to Turkey Andrei Karlov. *'The Times of India'* in its recent editorial has aptly written how this aggressive form of nationalism has brought to tatters the peaceful internationalism. It writes, "the assassination of Russian ambassador to Turkey Andre Karlov by the Turkish policeman incensed over Russia military intervention of Syria, and the terror attack on Berlin Christmas market that has been connected to a Pakistani national, symbolize the instability and disorder that has set into international affairs today. Both incidents are symptomatic of a larger process being driven by a new form of nationalism that rides roughshod over multilateral institutions."⁶ This new and highly

volatile form of nationalism is global, leaving no country untouched and turning institutions like UNO into passé. “In the Middle East an explosion of sectarian tensions mixed with larger geopolitical rivalries has plunged the region into chaos. The US military intervention in Iraq in the previous decade set the template for a smash-and-grab approach to foreign policy. Global organizations like the UN came to be viewed as effete. Russia followed suit by intervening in Ukraine and now Syria. China feels that it can disregard international norms and lord it over the South China Sea, even as it rides roughshod over other Asian nations.”

“As a result of these aggressive assertions, the authority of multilateral institutions has been ripped apart”⁷⁷ Countries are injudiciously fighting and funding wars to satisfy their pervert form of nationalism and fail to recognize or acknowledge the eerie knock of terrorism on their doorsteps. The immediate gratification of their national interests, howsoever unwise or indiscreet, is reason enough for every nation to forget mutual co-operation or peace and go ahead with their pugnacity. Morgenthau, in his *Politics Among Nations*, postulated “the creation of an international community as foundation for a world state” and as “the first step towards the peaceful settlement of international conflicts, which might lead to war”. In his successive new editions of *Politics among Nations*, Morgenthau anticipated “the obsolescence of the sovereign national state” and the transformation of “the existing international society of sovereign nations into a supra-national community of individuals.” Although Morgenthau thought little of UNESCO’s cultural content, he presumed that its international existence has contributed to the “spreading web of international activities and agencies, in which and through which the interests and life of all the nations would be gradually integrated.”⁷⁸ But in 21st century, which nation eulogises or affirms the concept of ‘supra-national community of individuals.’ Cultural exchanges are fine but to dilute the individual interests and life of all the nations and to integrate them into one seems an entirely utopian imagination. With BREXIT from EU, even cultural or economic exchanges among the European countries seem a far-fetched idea.

Like men, nations also have class-distinctions. Developed countries maintain their status by mingling among the nations of their own class, thereby ostracizing smaller, less developed or still developing countries and creating resentment and bitterness in them. Their vengeance in the name of nationalism is often venomous. For instance, Modern Turkey, as envisioned by Mustafa Kamal Atatürk after the collapse of Ottoman Empire, was to be a staunchly secular state. The Turkish military saw to it that Atatürk’s conception of the state remained intact. Turkey would become a frontline Western state in the American anti-Soviet containment policy, a member of NATO and other collective security mechanisms. But Europe never fully opened up to Turkey as its own. Despite Bush Jr’s exhortations that Turkey be admitted to the

European Union and therefore, serve as a model for other Muslim majority states to emulate—European powers never warmed up to this idea. This was a cause of resentment for many Turks.⁹

Internationalism is a purely western concept but is today losing grounds on its own turf. Perhaps, the west has forgotten the conflagration of the two World Wars and the consequent holocaust and genocide. It mooted the idea of Internationalism when alarmed by mass destruction but today chooses to bury it, as the present generation has not gone through those trying times of bloodshed and devastation.

To cut the story short, complete dilution of nationalism is neither possible nor advisable. Absence of nationalism or even national pride often hands over the reins of weaker or smaller nations to bigger, more powerful bosses of the world. It leads to further inflation of power and pride of the top countries. The weaker ones are crushed and gagged by them. Colonialism and the struggle in the third world countries against it is a classical example of this phenomenon. Pride in nation and its symbols, at least enough to let its people live with self-respect is mandatory. Belligerence to the extent of safeguarding one's national boundaries, unity and solidarity is imperative for every country. But this does not necessarily exhort hatred or bellicosity towards other nations. Peaceful co-existence in modern times is difficult but certainly not impossible.

II

.....and India

“भारत का चिरन्तन विवेक समस्त विष्व को एक कुटुम्ब के रूप में देखता है।हर देश की अपनी एक philosophy होती है और देश उस philosophy की प्रेरणा से आगे बढ़ता है। भारत एक देश है जिसकी वेदकाल से परम्परा वसुधैव कुटुम्बकम् की रही है..... प्रत्येक राष्ट्र की विष्व की अवधारणा उसकी सभ्यता, उसकी दार्शनिक परम्परा के आधार पर निरूपित होती है। भारत का चिरन्तन विवेक समस्त विष्व कोवसुधैव कुटुम्बकम्— एक कुटुम्ब के रूप में देखता है। भारत एक ऐसा राष्ट्र है जो केवल अपने लिये नहीं बल्कि विष्वपर्यन्त न्याय—Justice, गरिमा—Dignity, अवसर—Opportunity एवं समृद्धि—Prosperity के हक में आवाज उठाता रहा है। अपनी विचारधारा के कारण हमारा multilateralism में दृढ़ विश्वास है।”

— Sri Narendra Modi

Maiden speech at U.N. General Assembly on 25th September 2016

This speech by Modi is a spectacular amalgamation of nationalist ideal with internationalist philosophy. He portrays the threshold on which India stands today. As an advocate of peace and non-violence, India has a long-standing reputation of being a tolerant nation which has faced the vicissitudes of time with stoic courage. India seems to be following a two-pronged approach in 21st century. It, on one hand, advocates internationalism by contributing in ending wars, preventing conflict, maintaining peace, feeding the hungry, striving to save the planet from environmental degradation and creating opportunities for children, and on the other, has to combat the blows on its nationalism coming from Pakistan and China. Indian nationalism, after 1947, has mainly been in reference to Indian independence movement and its various

phases. Partition has been perceived as a major blow to nationalist flow of the country. Since then, till now, Indians' consciousness towards the nation has been a little blurred and the responsibility of patriotism lay mainly on defence forces. Then, there were terms like Hindu nationalism or Muslim nationalism which further undermined the true spirits of nationalism. It was only when issues like Kashmir and through it Pakistan were raised that Indians seemed to be vocal towards their national identity. This has rendered the country the image of a soft-state which can be targeted or victimized by any such country like Pakistan with full confidence of no retaliation on the part of India. We, as Indians, had desensitized over the deaths of our men in terrorist attacks.

Things have however, changed. Nationalism has been redefined particularly after such steps like surgical strikes and demonetization. India is now waking up to a new definition of nationalism wherein the country is fighting a two-pronged war—one, against its international foes Pakistan and China and on the other, against such internal enemies like black money and corruption.

With this, it is balancing its international agenda too. As Modi said in his speech in UN General Assembly, “.... let us work for genuine peace. No one country or group of countries can determine the course of this world. There has to be a genuine international partnership. This is not just a moral position, but a practical reality. We need a genuine dialogue and engagement between countries..... We should ensure that there will be peace, stability and order..... We should work together to ensure that all countries observe international rules and norms.... Let us continue redouble our efforts to pursue universal global disarmament and non-proliferation..... We must pursue a more stable and inclusive global development. Globalization has created new poles of growth; new industries; and new source of employment. At the same times, billions live on the edge of poverty and want; countries that are barely able to face global economic storm. There has never been a time when it has seemed more possible than now to change this.....”¹⁰

Despite such benevolent, cooperative and positive approach towards Internationalism, India is not wary of its long-time neighbour and foes-Pakistan and China. These countries have never missed any opportunity of backstabbing India and that too when it was least prepared. With Pakistan, it is indeed very hard to imagine that we once were together and lived as one. China had guns when it recited “Hindi-chini bhai-bhai”, Can India practice Universal brotherhood or “Vasudhaiv Kutumbakam” or internationalism with such foes? AjitDoval, the current National Security Advisor of India believes that universal brotherhood has always been a sublime force which has kept humanity together. But it has always been challenged by such fratricidal wars which has involved one's own brother as killers. “More of the bloodshed in this world has been among the people who have known them best rather than among strangers. The problem is not that the people did not know that they

are brothers or even if they knew it was less of a problem..... (Even) the entire Islamic history is the history of fratricide. Its a history of power and dominance. So, is it that the real problem is that the message of universal brotherhood has not travelled sufficiently and that is the cause of our strife? Let us identify the real problem.....Brotherhood is not sufficient. There is something beyond if the fratricide has got to be avoided. And I consider it a fratricide, because I believe I brotherhood..... and the fratricide takes place because there are extraneous vicious pollutants which affect the mindset of generations and people. They change in different times, in different geographies, in different context, in different histories, but they remain there. The problem lies in the fact that universal brotherhood is sublime, it is universal, but it will never be able to become a reality as long as those factors which vitiate it continue to remain. We have to go deeper into that. What it is that vitiates it?.....when World *Dharma*— the path of righteousness is challenged by few or anyone, the conflict is inevitable.....unless the evil is fought and vanquished, the peace, the tranquility, the development will not come. Universal brotherhood is always there but universal brotherhood is vitiated by extraneous circumstances.... You have got to stop, fight, kill, conquer ... if you succeed, universal brotherhood will prevail. If you fail, the planet will continue to suffer.....¹¹.

This theory by Ajit Doval is now the cornerstone of India's foreign policy. It is no more a soft docile state preaching non-violence on the face of those who challenge its sovereignty. Universal brotherhood or internationalism notwithstanding, India is no more ready to let China and Pakistan molycoddle each other at the cost of Indian nationalism. It has witnessed China continuously thwarting India's attempt to blacklist known Pakistani terrorists in UN. It also suffers terrorist activities on its soil by Pakistan. But, for India, the day of preaching and practicing universal brotherhood when others are active players in the game of bloodshed are over. As Ajit Doval says, "You cannot have universal brotherhood by appeasement. You cannot have universal brotherhood through a position of weakness. If it was possible, India would have been great..... India (must) stop preaching universal brotherhood. We've done it for far too long, for too many centuries. If we had been strong enough, probably there would have been much peace. We have provoked our enemies. If we had kept our defences, we had kept our society, we had kept our nation a strong citadel and made it a powerful fort probably we would have caused less of bloodshed"¹² India is now prepared to give a befitting reply to every act of violence, aggression or threat posed on its soil. It will not turn its head the other way when provoked by unwarranted violence by any country in the world. Offensive defence of country's frontiers will henceforth be India's policy. But it is, at the same time, a positive ally of any effort made for world-peace and cooperation. With an upsurge in its national as well as international standing, India now registers a strong presence not only within

the country, in the mindsets of its citizens, but also at global level. It has a lot of catching to do and India is moving..... and moving fast.

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Social Responsibility in Virtual World: Addressing Challenges of Cyber Victimization

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Abstract- This article discusses the phenomena of Cyber Victimization especially among young people and challenges of Cyber Victimization as the notable attribute is definition of Victim itself under Sec 2(wa) Criminal Procedure Code 1973 and Information Technology Act 2000 does not include Cyber Victims. This whole discussion is based on an interdisciplinary study in fields of Legal studies, Human psychology, social policy, victimization and Internet studies, probes the troubling phenomenon of Cyber Victimization which may result in suicidal attempts, depression and financial Frauds and scams. It is argued that adolescents are more vulnerable than adults because they lack maturity with respect to capacities such as thrill seeking, impulse control, peer pressure, reward sensitivity, cognitive processing, rational decision-making and long-term planning. The article suggests remedies to counter online social ills and argues for Virtual Responsibility of Individual, social institutions like Family and social networking sites etc.

Key Words- Social Responsibility, Virtual World, Cyber Victimization

Introduction: The “Cyber law” provides remedy against the violation of virtual, personal, professional, virtual-personal or virtual-professional cyber crimes. Amazingly term ‘cyber crimes’ or even term ‘cyber’, is nowhere defined in cyber laws including “Information Technology Act, 2000”. But it includes “all sphere of IT based (Information Technology), internet based online or offline offences”. Almost all types of “cyber offences” are punished under “IT Act” and other criminal laws. Despite advantages of IT laws, providing to individual, organization, companies and government, it also emerged as ‘the door to hell’ for criminal activities and tendencies. The ‘invention of Internet’ is the one of the “world changing technological development” in electronic communication. The ‘world wide web’ transforms the world in to a “Global village” and made all “netizen”, the “digital citizen”. It also made the world knowledge, “a huge ocean or common reservoir” of information, intellectual data and knowledge.

The virtual world is boundaries less, it gives “ample opportunities” to

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ameliorate both personal and professional relation across border. The world has witnessed degradation of technology proliferation gradually in cyber era.

According to the datas of "Deccan Chronicle"- *"India has gain hundred percent hike in registered cyber crimes in year 2016-17. In Government sector, hike of 136 percent and 119 percent in private sector, especially financial sector. We made certain amendments in IT laws, to cope up with new emerging cyber offences including privacy, theft, hacking, cyber bullying, cyber pornography, cyber harassment etc. Still Indian cyber laws are not efficiently dealing with prevention of "Cyber victimization" and leave the "internet user" in vulnerable position".*¹

Majority of 'digital citizens' don't even know about the importance of cyber laws and 'digital hygiene'. Indian citizens are not perfectly 'digitally literate user' or "digital citizen". This 'digitally illiteracy' made them subject of 'cyber victimized'. The focus and vision of whole range of criminal law is a "penalizing criminal and least concern about the trauma of "cyber victimization". The term "cyber victimization" is not easy to define because of dynamic character of "victimization". One of the preventive attribute of Cyber Victimization is *"Cyber Victimization and Social Responsibility (CVSR)"*. It is a form of "self-imposed regulation" integrated to uphold social harmony and peace and this article attempts to highlight this preventive measure of Cyber Victimization.

The understanding cyber victimization: "digital architectures and disinhibition effects": The term *"cyber victimization"* is a composition of two words- 'cyber' and 'victimization'. The concept of 'cyber victimization in cyber space' is not known to everybody particularly, in India. The chances of 'physical injury' are less but that may result in 'mental & psychological trauma, which might sustain throughout 'victim's life'. The term 'cyber' means- *"of relating to or involving computers or computer network (such as internet)"*.² Another definition is- *"cyber is a prefix used to describe a person, thing, or idea as part of the computer and information age. Taken from 'kybernetics', Greek for "steersman or "governor", it was first used in cybernetics, a word coined by Norbert Weiner and his colleagues"*.³

"Victimization" general means being 'victimized'. Further 'victimized' is being 'victim' of commission of some offence against a *"person"*. The word 'person' includes a 'company or organization (public or private). In words of Alice Miller-

"The victimization of person is now here forbidden; what is forbidden is- to write about it". So, the before understanding of "cyber victimization" we should full understand the term 'victim' & other associated terminology". The meaning of **"victim"**, is-

"Victim in the context of crime means, a person harmed, injured or killed because of crime, accident or other event or action. It also refers to a person who is tricked or duped. He is identifiable person who has been

harmed individually & directly by the perpetrator”.

By the analysis of this definition the context of “Cyber victimization” it could be understanding that - *“a person ‘virtually or physically harmed’ or ‘virtually killed’, because of cyber crime, or virtual incident, or other event or action. It is also referring to a person, who is virtually tricked or duped worth cyber means. He is identifiable person who has been harmed individually or collectively as an organization or group, directly by perpetrator”.*

In all cases of whereby a person is targeted through cyber space is – a sufferer and ‘cyber victim’. He undergone though physical mental, financial, emotional trauma and damage, which may even, resulted into “virtual death”⁴ or physical death of person for e.g. virtual harassment, violation of privacy, bullying etc.

Now we can conclude that **“Cyber-victimization** refers to- *the process of victimizing others using information and communication technologies. Cyber-victims can be governments, organizations or individuals. In this chapter, cyber-victimization is used to refer specifically to the victimization resulting from cyber-criminal behavior”*.⁵⁵ What is Cyber Victimization, IGI

The cyber world provides the norms & tenets, to be complied with internet on cyber space. *“The culture that emerged or is emerging, from the use of computer networks for communication, entertainment and business. It is also the study of various social phenomena associated with the Internet and other new forms of network communication, such as online communities, online multi player gaming, and email usage”*

“Cyber Victimology”- *“Cyber victimology is the study of- ‘survival of cyber crime’ and of ‘psychological trauma and experience’. It is also inclusive of mental element which reflects the feelings and emotions of being ‘cyber victim’. It understands the behavioral modes of victim, which resulted into or contributed to his state of ‘cyber victimization’ which is also called as “Cyber victimogenesis”.*

The objective of “cyber victimology is- *“To analysis the mental trauma, emotions and stress a cyber victim going through? The condition of being in- anger, shame, helplessness, defeatism, isolation, anguish, betrayal is felt victim. The cyber victim going through fear, anxiety, nervousness, self blame. In such an emotionally disturbed state, what help, counseling and support victim gets from the family, society or the state? Law enforcement agencies use the study of Cyber victimology to determine why the victim was targeted by the perpetrator”.*

Further “Cyber victimology” is inclusive of other several integral attributes like-

1. **“Cyber Victimogenesis”**- It refers to the origin or cause of cyber victimization.
2. **“Victim Precipitation”**- Where, the real cause of being victimized is,

the victim himself.

3. **“Vulnerability”**- It refers to a state of recognition of weakness by other, physical, psychological, social, and material or financial which made a person victim of another person.
4. **“Poly Victimization”**- It belongs to state of experience of multiple cyber victimizations.
5. **“Rescue”**- To restrain or prevent a person from a dangerous or difficult situation, to free, liberate, extricate or recover.
6. **“Cyber Victim Assistance”**- It includes rescue, Counseling, Legal assistance, Legal advice, Compensation and relief.
7. **“Rehabilitation”**- It means restoration, reintegration or reinstallation of cyber victim, inclusive of individual, person, group, company or organization- public or private into normal life of person.
8. **“Restorative Justice”**- Its objective is that victims can be better given the justice through ‘an attempt to reconciliation’, between ‘*cyber victim and the offender*’. The objective is to prevent the re-victimization and transformation of offender. The offender takes the responsibility for the offence, expresses repentance for offence, and often makes some compensation to the ‘cyber crime victim’.

1.3 Dynamics of “perpetrator- cyber victim relationship”: “The dynamics of perpetrator and cyber victim in as follows:

1. *The perpetrator has already exploited the victim and taken advantage.*
2. *Often the offender might be superior in technological, psychological, monetary or domination etc.*
3. *The offender has betrayed the trust or misused his authority.*
4. *The victim feels cheated, wronged, violated.*
5. *The legal regime proceeds on a position that the accused is innocent till the guilt is proved.*
6. *The burden of prove lies on the victim itself to establish the guilt of accused.”*

Related fields of “Cyber victimology”:

There are other related fields which help in understanding of “Cyber victimization” like Criminology, Penology, Psychology, Psychiatry, Social behavioral science and Neuro-sciences.

Cyber Victimizations and Preventive Attributes: The Cyber victimization and preventive attributes include:

- Cyber victimization and Social Responsibility (CVSR).
- Maintaining ‘Digital Virginitiy’.
- Digital Hygiene, A precautionary measure.
- “Cyber Hypnotism” the root cause of cyber victimization.

“Cyber victimization and Social Responsibility (CVSR)”⁶:

“Cyber Victimization and Social Responsibility (CVSR) policy functions as “built-in, self-regulating mechanism” whereby “Internet service provider

(ISP) ” monitors and ensures its active compliance with the spirit upholding rule of law, ethical standards, and international norms.

The basic objective of “Cyber Victimization and Social Responsibility (CVSR):

1. *To secure the responsibility for Internet service provider’s (ISP) actions.*
2. *Maintaining and raise the dignity of “digital citizen” and “digital citizenship” without any compulsion.*
3. *Encourage a positive impact through its activities on the environment, users, clients, communities, stakeholders and all other members working for public good.*

“Cyber Victimization and Social Responsibility (CVSR)” is to provide a safeguard from ‘being victimized’ from current cyber threats and also prepare themselves from future threat to be posed as well as guide the user and subsidiaries to maintain the “global cyber harmony” without outraging privacy laws, data or information mining and other related issues. ISP must stand for and will uphold the rights of its consumers. There are various kinds of strategies practiced and implemented by ISPs such as:

1. *The consumer and society-based development strategies.*
2. *Benevolence*
3. *To incorporate “prevention of cyber victimization” strategies directly into service providing objectives of ISP’s.*
4. *Acquiring increased “corporate responsibility interest”, prominently known as “Creating Shared Value (CSV) etc.*

CVSR exhibits social, environmental and ethical conscientious behavior in “governance of its operations”, the ISP’s can promote value and long-term sustainability while making cheering contribution for the welfare of “virtual community”.

“Internet Censorship, Cyber Victimization” and social responsibility: The ‘World wide web (Internet)’, is and always providing a space for ‘Cyber battle and victimization’. It is used as a “double edged weapon” for the commission of almost all ‘cyber offences’. No one has controlled the launching of these ‘cyber weapon”, either for attack or defence. The fundamental right under Indian Constitution, “Freedom of speech” is not “freedom of abuse”. The ‘Intellectual freedom’, ‘freedom of access of information’, ‘digital freedom’ is not *inclusive* of sharing or spreading restricted information. Indian IPSs not providing ‘pre-filtration’ of information, without verification of source of information. Some time that may lead in to ‘defamation’, communal riots and violence due to spreading of ‘fake news’ or information.

Oftenly most of the ‘viral information, news, video, data or images’ trending on internet are either fake or unverified but that may disturb public harmony, safety and tranquility and made the community “cyber victimized”. The edited or photo-shopped also made a person “cyber victim” which sometime even take the person to commit suicide. It is the responsibility of

ISPs, govt. and 'all digital citizens' to share the information with responsibility, care and caution. We have no universal consensus on "mechanisms of control" which are best suited for resolving conflicts of Internet. It is well understood that: *"Cyber censorship is optimism along with vigilance and constant strategies to uphold 'Cyber transparency of Internet' that can stay as a force for protecting 'digital freedom' a tool for more efficient domination"*.

Maintaining and upholding 'Digital Virginitv':

Maintaining of "Digital virginitv" is the preventive measure for the future "cyber victimization". According to Urban dictionary, the meaning of 'digital virginitv' is:

"The act of restoring your computer to its virgin state when you are leaving job and want no one to steal intellectual property".⁷

It is always a question of curiosity that "holding of information is born digital or made digital?" and the real source of information. Now the question is what do we meant by "digital"? Actually, this is a thing of which everyone in the "tech world" talks about, but no one gets or hold it entirely. *The word*

"Digital is like teenage sex- Everyone talks about it, nobody really knows how to do it, and everyone thinks everyone else is doing it, so everyone claims they are doing it".⁸

Digital Virginitv:

The creation of cultural ethics and policy inside organization, for maintaining 'corporate secrecy and confidentiality'. The bases of 'digital virginitv' is 'upholding formal and informal values, behaviors, and beliefs etc. Generally, every organization shares their vision, confidential data and information including ID and passwords. It is the duty of any employee leaving the job to handover all the control and data to organization and further not to use or misuse that information anywhere.

It is the duty of every 'digital citizen' to know: "how to use digital communications to explore our networked society, how to build customer relationships in the digital and actual world".

If we realize the strength or significance of networking connection", it's not only about social networking websites' like 'Facebook, Instagram, linked in or Twitter etc. It's all about 'personal emotions' that connect everyone and without digital platforms wouldn't relevance.

Digital Hygiene, A precautionary measure:

The implementation of "digital hygiene can prevent "cyber victimization" as precautionary measures. The term "digital hygiene" in "Information Technology" is used to denote significance of using 'password protection and other preventive precautions' to keep password confidential. The 'digital hygiene' is necessary for the prevention of being victim of "cyber victimization. The "digital hygiene" is used to prevent "digital disasters". Instead of "passing legislations and resolutions we can take certain initiative to prevent digital disasters"⁹.

1. Reconsidering “Automatic updation of digital subscriptions”:

Many Digital service providers have scheme of “automatic renewal of their service subscriptions facilities” after passing of due time. We should always take of these policies of the service providers. We should be more vigilant by maintaining a “reminder calendar” of due date of “renewal of subscriptions. By this if we don’t wish to continue those services, we can remove those with in due time.

2. Maintain ‘password manager’:

The evil of “unethical hacking” of web page, website or blog or email ID is common global phenomenon. It is well said that “prevention is better than cure. So prevent our system, server or database, website, web page, ID etc. we should “maintain the confidentiality of ID and passwords time to time by “changing password time to time. And also avoid “same password” for all ID and logins because practically it is not possible for the user to memorize multiple passwords without saving somewhere. In this situation a good password manager can be a ‘digital disaster saver’.

3. Taking, maintaining and updating ‘databases’ regularly:

Majority of ‘digital citizens’ left their data, files and other important data in vulnerable position. This negligent attitude put them in a very critical position, when they lost their ‘crucial data’ corrupted, misused or deleted by someone, virus attack or attacked by malware. Regular “back up can be a time consuming and painful, but it is just like putting lock on door and keeping our valuables in a bank. If our digital database is significant for us then we should take back-up of all data on ‘cloud’ like Google drive or in external hard disk or storage device”.

4. Reprocessing of E-waste and Electric Waste Management System (EWMS):

The old electronic devices breeze up in a landfill. This is a matter of global concern. The old electronic junk contains “metals, sensitive hazardous materials. Till now universally we don’t have “Electric Waste Management System (EWMS)”. Generally, we dispose-off digital devices and equipments without wiping off the data stored on that or without taking due care and caution, which can be misuse by the perpetrator sometimes. So, thing required is to make a system of “disposal of e-waste with due care and cautions. Inspire of “taking e-waste to recycler we can bring that waste to “Google electronics recycling” for ethical disposal. Further If we relinquish mobile phone or desktop or laptop, tablet or other storage device, be ensure of wiping- off the hard drives and personal data and data bases.

The Strategy of “Hero, Hub and Hygiene”:

The “Google introduced a content strategy as a guideline for marketers who wanted to build up a fan-share on YouTube . The web giant called it “hero, hub, hygiene,” referring to the three types of content upon which this strategy is based. Although it was originally intended to be used for video

content, this applies to all types of content marketing in a more general sense".¹⁰

“Cyber Hypnotism” the root cause of cyber victimization:

‘Cyber hypnotism’ means: *“hypnotizing people through internet by exploiting various human weaknesses and emotional vulnerabilities in cyberspace) and related crimes of persuasion including email fraud besides scare ware (a type of malware)”*.¹¹

It is significant to know that all the industries, governments and netizens are in not protected in cyberspace, due to privacy diminishing, ID theft, E-frauds and violation of intellectual property, that is ‘highly vulnerable’ and ‘soft-target’ for cyber perpetrators. Taking lessons from present and past incidences, the perpetrators use the technique, which is particularly connected with ‘cyber hypnotism’.

The meaning of “hypnotism” is *“a wakeful state of focused attention and heightened suggestibility, with diminished peripheral awareness, usually induced by a procedure known as hypnotic induction, which is commonly composed of a long series of preliminary instructions and suggestions”*.¹²

It is in contradiction with a famous delusion that “hypnosis” is a type of “unconsciousness, similarity with sleeping. “Malware”, means “a malicious code & software (for instance viruses, Trojan horse, worms, key loggers, scare ware, spyware etc.)”, Which is especially made for causing damage or disruption of a system irreparably and to commit the theft of “personal information and contacts details” saved in database in cache memory / records, by using hijacking techniques, the browser and to redirect to a phishing. Eventually many ‘cyber-offences, prominently through “hypnotizing emails”, those are generally tagged with malwares and warrant. Only a careful vigilance at individual level can prevent “cyber victimization” besides the legal techniques of prevention.

It is very strange that mostly cyber-crimes do not require a high level of technical specification. It can be prevented with ‘due diligence’; nevertheless, sophisticated cyber-crimes demand an altogether different approach. “Cyber Vigilantism”, as reflected in those communication, is “a proactive policy to restrain the attackers in an ethical way which prevents it in restricted manner instead of implementing a “soft policy of passive reaction.” Finally, it will encourage ethical persons in their actions and discourage the corrupt person in near future.

The fraud by electronic mails and cyber hypnotism:

In fact, “cyber-attacks” can be committed by two ways, firstly against data and database and to steal or corrupt data and denial of services. Most cyber & other computer attacks fall in it. Secondly by controlling other systems who wish to use computer as a tool to facilitate unlawful activity.

Cyber Victimization and “Victim Compensation Scheme”:

It matters of great surprise that till now the definition of “victim”, “cyber

victim, “cyber victimization” or “perpetrator”, “hacker” and some other significant terms are not included or defined in any legislation related to “cyber crime” in India. According to Code of criminal Procedure, 1973, “victim” means:

2(wa) “victim- means a person who has suffered any loss or injury caused by reason of the act or omission for which the accused person has been charged and the expression “victim” includes his or her guardian or legal heir”¹³

We can say victim is person against whom any offence is committed. The focus all the criminal laws and offences is to provide ‘punishment’ to the accused, means on “penalizing theory, but the law forgets the most vulnerable part of criminal justice system i.e. “victim”, who suffers physical or mental trauma in his mind and life. Restoration of ‘victim’ in his routine life should also be the object of law. We have “victim compensation scheme” for victims of criminal offence in ‘Code of Criminal Procedure 1973 from Sec. 257. But this scheme is not applicable over “cyber victimization” because surprisingly “cyber victim” is not included in the definition of “victim”, which is not justified. The “Information Technology Act, 2000” has not any “mechanism to deal with this issue. Though we have some private NGOs and Organisation, which fight for the justice, care and protection and providing compensation for “cyber victims’ from ‘cyber criminals’. But in the absence of any legal parameter or mechanism, the laws provide compensation in some cases, which may or may not be adequate sometimes. Now Indian is need to include the above mentioned terms in legal framework and make “Cyber victim Compensation Scheme (CVCS)”.

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The Impact of Obesity on Cardiovascular Diseases among the Middle Aged Adults of the Notified urban slums in the South of Guwahati

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Abstract- *Obesity has reached global epidemic proportions in both adults and children and is associated with numerous illness, including hypertension, diabetes, dyslipidemia, obstructive sleep apnea and major CV diseases. Obesity is among the leading causes of elevated cardiovascular disease (CVD) mortality and morbidity. In the present study, the associations between the increase in body mass index and the increase rates of CVD and high blood pressure both among the male and females belonging to the middle aged adult group of notified urban slum, in the South of Guwahati. Obesity has a major Impact on CV diseases, such as heart failure, coronary heart disease, sudden cardiac death, stroke etc is associated with reduced overall survival. CVD and diabetes are becoming serious concern nowadays. The slum dwellers are mostly exposed to such diseases due to unawareness and negligence on some of the risk factors in spite of being awarded. The present study wants to show how far away are the people of Assam, from the prone to the risk of cardiovascular diseases, what might be the reason for the risk and how it can be minimized.*

Key Words- Dyslipidemia, hypertension, morbidity, coronary heart diseases

Introduction: Overweight and obesity are defined by the World Health Organization as abnormal or excessive fat that accumulate and present a risk to health. Obesity is measured in Body Mass Index(BMI), which is a person's weight(in kilograms) divided by the square of his or her height(in meters). A person with a BMI of 30 or more is generally considered obese. A person with a BMI equal to or more is generally considered obese. A person with a BMI equal to or more than 25 is considered overweight. The degree of incidence of obesity in the metropolitan city as well as among the slums of metropolitan city is increasing at a pace. Nearly 61.2% of adults are classified as overweight or obese. Obesity was found to be a major risk factor for the development of type-2 diabetes, Asthama, hypertension, stroke, liver and gallbladder diseases.

Waist circumference is found to be highest among the female than males of the age group 51-55. Higher the waist circumference, higher is the increased

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risk of developing CVD. It has been found that majority of the males of (36-40) age group are more obese than females of the same age group, this is due to the consumption of tobacco, smoking, alcohol, unhealthy diet, extra salt intake and sedentary lifestyle with no physical exercise, as a result of which around 58.8% of male are suffering from hypertensive, while 94.1% of male from the same age group are suffering from diabetes, and even a few numbers of male also suffered from stroke. Again it has been found that majority of the women of 46-50 age group are more obese than the males of the same age group, this is due to the increased of waist circumference, unhealthy diet, lack of physical exercise and extra salt intake, as a result of which majority of the women of the same age group are suffering from high blood pressure, diabetes and even a case has been seen where a few women have undergone sudden cardiac arrest also.

The incidence of CVD is greater in urban areas than in rural areas reflecting the acquisition of several risk factors such as tobacco consumption, lack of physical activity, unhealthy diet (today's fast food habits) and obesity. A peculiar cause of concern is the relative early age of CVD deaths in the developing countries. It is estimated that there were approx 46.9 million patients with cardiovascular disease in India, during the year 2010. Compared with all other countries India suffers the highest loss in potentially productive years of life, due to deaths from CVD in people aged 35-64 years. The prevalence of CVD is reported to be 2-3 times higher in the urban population as compared to the rural population, and obesity is one of the sole reason for the higher prevalence of CVD in the developing countries.

Risk factors for cardiovascular Disease:

"Risk" is defined as a probability of an adverse health outcome, whereas "risk factor" refers to an attribute or characteristic or exposure of an individual whose presence or absence raises the probability of an adverse outcome (WHO, 2002). The World Health Report 2002 identifies top 20 leading risk factors in terms of the burden of disease according to the mortality status in the population. Ezatti et al estimated that in 2000, 47% of premature deaths and 39% of total disease burden resulted from the combined effects of the risk factors studied. The present mortality rates are the consequence of previous exposure to behavioural risk factors such as inappropriate nutrition, insufficient physical activity and increased tobacco consumption. This is called "lag time" effect of risk factors for CVD. Overweight, central obesity, high blood pressure, dyslipidemia, diabetes and low cardio-respiratory fitness are among the biological factors contributing principally to increased risk.

The majority of cardiovascular disease (CVD) is caused by risk factors that can be controlled, treated or modified, such as high blood pressure, cholesterol, overweight/obesity, tobacco use, lack of physical activity and diabetes. However, there are also some major CVD risk factors that cannot be controlled.

In terms of attributable deaths, the leading CVD risk factor is raised blood pressure (to which 13% of global deaths is attributed), followed by tobacco use(9%), raised blood glucose(6%), physical inactivity(6%) and overweight and obesity(5%),(Mendis S, Puska P,2011).

Thus, risk factors are conditions or habits that makes a person more likely to develop a disease. They can also increase the chances that an existing disease will get worse.

Risk factors of cardiovascular diseases can be grouped into two categories,

- Modifiable risk factors: Modifiable risk factors are those that can be changed or treated
- Non modifiable risk factors: Non-modifiable risk factors are those that cannot be treated or changed.

Objectives:

- a) To assess the demographic factors i.e the socio-economic status of the people.
- b) To assess the awareness level and exposure to risk factors of cardiovascular diseases among the middle aged adult residents of urban slums.
- c) To examine the associations between increased rate of BMI, CVD and HBP(high blood pressure) with the advance of age among the middle aged adults of both gender.

Demographic characteristic of the people:

There are all total 217 slum area in Guwahati city as stated by “Guwahati Municipal Co-operation office”. Out of which 118 are non notified slum area and the remaining 99 are notified slum area. The field survey was conducted among the four notified slum area of ward no 12 in South of Guwahati. They are “Datalpara”, “Jayanagar”, “Fatashil Bishnunagar” and “Devakatanagar”. The people of these slum areas are of heterogeneous communities. Different types of communities of people resides in those slum areas, communities like tribal peoples, peoples of Bengal, Bihar, Tamil Nadu, Punjab etc are the residents. The surveyed slum areas consist of few household populations. The male population of the surveyed slum areas are mostly sweepers, hardly few male population are found of different occupation, such as shopkeeper, barber, cobbler etc. The majority of female population are housewife. Few are sweepers, shopkeeper, tailor and fast food cooker. The houses were made of bamboo mats and are in a haphazard manner, distributed in the both side of the road. The people of the slum areas mostly lived in rented houses and are nuclear families. Also most of the children’s along with adults were suffering from some dengue disease and some communicable diseases. The people of those slum areas migrated from various town, states in search of livelihood.

Materials and Methodology:

The study is mainly field based primary data. Community based cross-sectional study was conducted in the surveyed area. The study was conducted

on the basis of age-criteria i.e 36-55 years of age, which falls in middle aged adults age group. The instruments that were used for data collection were Pre designed and pretested pro-forma, Weighing machine, Measuring tape, B.P Machine and Stethoscope.

Table No 1:
Distribution of people on the basis of socio-economic status

Age Group	36-40		41-45		46-50		51-55		Total	
Socio-Economic status	Male	Female	Male	female	male	female	Male	female	male	female
Upper Middle (16-25)	3 (17.6%)	3 (12.5%)	7 (35%)	1 (6.25%)	4 (28.5%)	2 (12.5%)	3 (18.7%)	5 (29.4%)	17 (25.3%)	11 (15.0%)
Lower middle (11-15)	8 (47.05%)	9 (37.5%)	9 (45%)	9 (56.25%)	3 (21.4%)	8 (50%)	6 (37.5%)	8 (47.05%)	26 (38.8%)	34 (46.5%)
Upper Lower (5-10)	6 (35.2%)	12 (50%)	4 (20%)	6 (37.5%)	7 (50%)	6 (37.5%)	7 (43.7%)	4 (23.5%)	24 (35.8%)	28 (27.3%)
Total	17	24	20	16	14	16	16	17	67	73

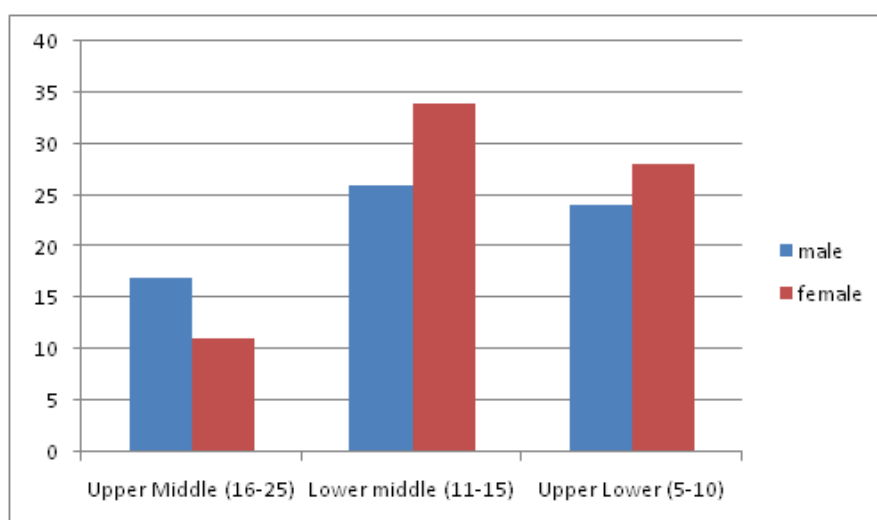


Fig 1: Distribution of people on the basis of socio-economic status.

Table No 2:
Distribution of people on the basis of waist circumference

Waist circumference for men	36-40	41-45	46-50	51-55	Total
Low risk(93.9cm or less)	7(41.1%)	7(35%)	4(28.5%)	3(17.6%)	21(30.8%)
Increase risk(94.0 to 101.9cm)	10(58.8%)	13(65%)	8(57.14%)	12(70.5%)	43(63.2%)
High risk(102.0cm or more)	—	—	2(14.28%)	2(11.7%)	4(5.88%)
Total	17(25%)	20(29.4%)	14(20.5%)	17(25%)	68
Waist circumference for women	36-40	41-45	46-50	51-55	Total
Increase risk(80.0 to 87.9cm)	5(20.8%)	2(12.5%)	3(18.75%)	1(5.8%)	11(15.06%)
High risk(88.0 cm or more)	19(79.16%)	14(87.5%)	13(81.25%)	16(94.1%)	62(84.9%)
Total	24(32.87%)	16(21.9%)	16(21.9%)	17(23.2%)	73

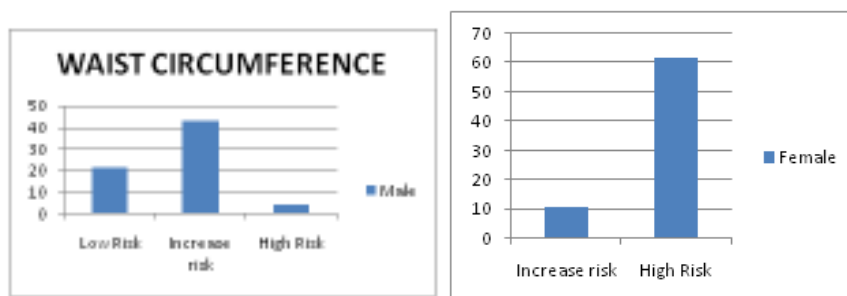


Fig 2: Distribution of people on the basis of waist circumference.

Table No 3:

Distribution of people on the basis of Body Mass Index

BMI	<18.5(underweight)		18.5-24.9(normal)		25-29.9(overweight)		>30 obese		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
36-40	1(5.8%)	—	4(23.5%)	10(41.6%)	10(58.8%)	12(50%)	2(11.7%)	2(8.3%)	17	24
41-45	—	—	8(40.0%)	7(43.7%)	8(40%)	8(50%)	4(20%)	1(6.2%)	20	16
46-50	—	—	5(35.7%)	5(31.25%)	5(35.7%)	10(62.5%)	4(28.5%)	1(6.2%)	14	16
51-55	1(6.25%)	1(5.8%)	6(37.5%)	6(35.2%)	8(50.4%)	8(47.05%)	1(6.2%)	2(11.7%)	16	17
Total	2(1.42%)	1(0.71%)	23(16.4%)	28(20%)	31(22.1%)	38(27.1%)	11(7.8%)	6(4.2%)	140	

Fig 3: Distribution of people on the basis of nutritional status.

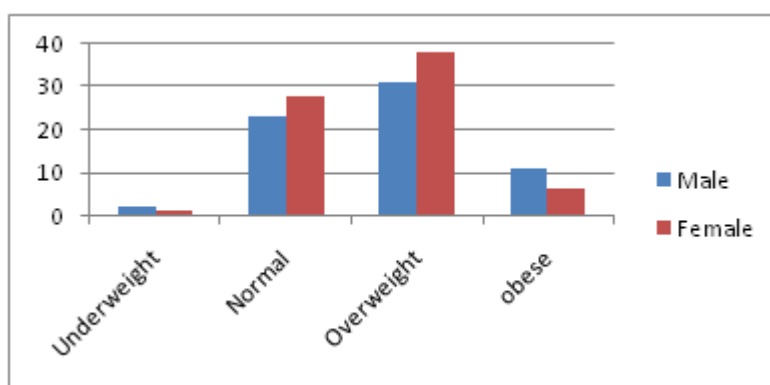


Table No 4: Distribution of people on the basis of blood pressure

Blood Pressure	Normotensive		Hypertensive		Total	
Age group	Male	Female	Male	Female	Male	Female
36-40	7(41.1%)	11(45.8%)	10(58.8%)	13(54.1%)	17	24
41-45	6(30%)	6(37.5%)	14(70%)	10(62.5%)	20	16
46-50	3(21.4%)	6(37.5%)	11(78.5%)	10(62.5%)	14	16
51-55	2(12.5%)	1(5.8%)	14(87.5%)	16(94.1%)	16	17
Total	18(12.8%)	24(17.1%)	49(35%)	49(35%)	140	

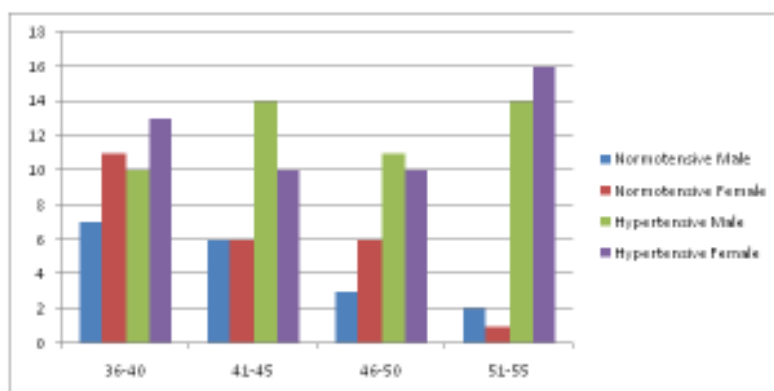


Fig No 4: Distribution of people on the basis of blood pressure.

Results & Findings:

From the (table 1) it has been found that the highest no. of male 38.8% and female 46.5% belongs to the lower middle socio-economic status. In upper lower group there are 35.8% male and 27.3% female. Least number of male and female population is found in upper middle socio-economic status. From the (table 2) it has been found that majority of males belonging to age group (51-55) fall in the increase risk category i.e 70.5%, and low risk is seen to be highest among (36-40) age group. While majority of females belonging to (51-55) age group fall in the high risk category i.e 94.1%, and increase risk is highest among (36-40) age group. Overall increase risk is highest among the males. From the (table 3) It has been found that majority of the males and females are overweight. Males of (36-40) age group are more overweight than females of the same age group. While female of (46-50) age group are more overweight than males of the same age group. From the (table 4) hypertensive of male are more in the first three age group in comparison to the female of the same age group. Except in the age group (51-55) female are more hypertensive than the male of the same age group.

Lower Socio-economic status and lower middle socio-economic status is found to be highest from the data obtained. The association between the lower socio-economic status and the exposure to the risk factor is more in comparison to the socio-economic status. Also the relationship between the lower socio-economic status and BMI > 25-29.9 i.e overweight is more in female from the age (36-40) in comparison to male, and are at a high risk of heart diseases, this is due to excess of abdominal fat. Hypertension is found to be highest among the females of 41 to 55 age group, in comparison to male. This may be due to the dysregulation of menstruation cycle and the beginning of the early menopause phase. The awareness level about the risk factors of Cardiovascular disorder is very low among the urban slum males and females of Guwahati. Many are unaware that diabetes, hypertension, obesity, extra

salt intake, sedentary lifestyles, tobacco and alcohol consumption, are the risk factors of cardiovascular diseases. From the study it is revealed that 15.7% of males are awarded of the risk factors and only 20% of females are aware of hypertension as a risk factor of cardiovascular diseases.

Summery and Conclusion:

Speaking of biological aspect, a varieties of races are seen among the surveyed slum area. It is observed that, the Biharis and the Punjabis women are overweighed and possesses excess amount of abdominal fat. The Muslim males are prohibited from drinking alcohol, as religiously it is regarded as breaking the rule, in their words breaking of "Haram". Thus it is observed that the muslim males are less exposed to the risk factors in comparison to the other communitites. Majority of the slum peoples of the surveyed area are suffering from overweight, excess amount of abdominal fats and high blood pressure. Mostly the females are hypertensive in nature in comparison to males. Most of the females are overweight than in comparison to males. In general majority of peoples are overweighed. A few numbers of obese people are also found among the surveyed population. A high number of males possesses an increase risk of abdominal fat, but females out range the males with that of high risk of abdominal fat thus this indicate a risk factor for not only heart disease, but also associated with health problems such as type2 diabetes, heart disease and high blood pressure etc. This risk increases with a waist measurement of over 40 inches in man and over 35 inches in women.

In India, several reports on cardiovascular disease risk factors have been brought out in different regions and population. Through the study, the investigator want to show the rapid changing environment of the slum dwellers, and the increasing morbidity and the premature mortality, that is nowadays the prevailing situation of the state like Assam. Cardiovascular disease and diabetes are becoming serious concern nowadays. The slum dwellers are mostly exposed to such diseases due to the unawareness and negligence on some of the risk factors in spite of being awarded. Through the study, conducted by the investigator in a part of Guwahati, Assam, wants to show how far away are the people of Assam, from the prone to the risk of cardiovascular diseases, what might be the reason for the risk and how it can be minimised or early prevention can be spreaded to the slum dwellers by imparting the knowledges of diseases that might occur due to the exposure to the risk factors. So that people take it as a serious concern for their health, which implies the health of the nation. Also an estimation can be made regarding the prevelance of risk factors and their prone to the various type of heart disease among the slum dwellers. Therefore through the study conducted by the investigator, a finding can be made that mortality due to communicable diseases is decreasing, that for non-communicable diseases is raising at a very rapid pace. The survey conducted is useful to demonstrate changes in the risk factor profile. These surveys are useful in raising an alarm amongst

health planners and policy makers and for making a case for initiating interventions. The surveys would help in overcoming the limited understanding of surveillance systems amongst health planners and policy makers. Keeping in mind the importance of building community partnership which would enhance the acceptability and accountability of surveillance data and the importance of health status of an average adult of our society and country, this study was conducted among the middle aged adults of the urban slums of ward no 12 in the south of Guwahati.

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Use of Improper Fishing Gears and Sustainability of Fishery Resources in Sone Beel: A Study on Traditional Fishing Community of Sone Beel, Assam

*** Manish Roy**

Abstract- Fishing as an occupation is being practiced in India since time immemorial. Fishing has been regarded as the primary source of livelihood of a significant proportion of rural population. For a long time, fishing has been regarded as one of the most important means of livelihood of thousands of households living in the neighborhood of the Sone Beel in Karimganj district of Assam. Son Beel is the largest wet land and catchment area of the region which floods during the monsoons and shrinks during winters and springs. The fisheries sector is almost entirely dominated by small scale, poor fishing households who produce a major portion of total freshwater fish catch in the district. However, the region has witnessed a poor performance in fishing especially in terms of productivity or catch per unit effort. Various factors are responsible behind the backward informal nature of fishing in the Sone Beel. The peak fishing season (monsoon months) is characterized by open access where there is crowding of efforts due to unrestricted fishing whereas restrictions are imposed only during slack seasons (winter months) when the water body shrinks and is confined to a limited area. In Sone Beel there are variety of fishing methods applied during peak season with carrying different indigenous fishing tools and equipment. Most informed people in the region (that includes fishermen) have a perception that there has been depletion of fish stock and fish species in the Sone Beel. Fishermen are regularly violating the norms of fish catch methods. Moreover fishing gear particularly size of net and its gap are not maintaining as per state government instruction as a result fish stock and fish species are gradually depleting in sone beel. Based on this analysis, the present study attempt to highlight how improperly use of fishing gears and excessive fish catch results loss of growth fish population and fish species. The paper also suggest to control overexploitation of the fishery resource, degradation of fish stock and over-crowding of catchers in the region so as to maintain sustainable source of livelihood of the sone beel fishermen. The study is based on primary data that have been collected in a household level socio-economic survey surrounding the Sone Beel covering all the Gram Panchayats surrounding the Sone Beel.

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Key Words- Fishing Gears, Fish Stock, Sone Beel.

1. Introduction:

1.1 Statement of the Problem: The Sone Beel is the largest wet land and catchment area of the region. The traditional fishermen or the people of Sone Beel dependent on fishing for their principal livelihood have lived in the region for several generations. This fishing community in Sone Beel is visibly socio-economically backward, having access to subsistent levels of earning only. More than 35 thousands families are directly dependent on the beel for fishing. About 300 families fully depend on income from boat services for six months and similar numbers of families are engaged in traditional fishing equipments. The fisheries sector in Karimganj is almost entirely dominated by small scale, poor fishing households dwelling in the vicinity of the Sone Beel. In fact total fish catch in the Sone Beel can account for around 70 percent of the total fresh water fish catch of the district. Most informed people in the region (that includes fishermen) have a perception that there has been over-crowding of catchers in the Sone Beel in recent years due to the complete absence of entry restrictions during the peak fishing season. Moreover the use of improper fishing nets is the main cause of depletion of fish stock and fish species in the Sone Beel. Thus the excessive number of fish catchers fishing across seasons and indiscriminate use of fishing nets have made a challenging issue over sustainability of fishery resources and fish species in the Sone Beel. The key issues of concern as identified by the fishermen themselves include poor and inefficient fishing gears and vessels, lack of capital, poor fisheries management, limited access to larger markets (e.g. Silchar, Guwahati and Agartala) coupled with poor handling facilities, poor infrastructure and high post-harvest losses. Lack of alternative employment opportunities and rising number of fishing households have possibly been the main cause of over-crowding of catchers leading to over-exploitation of the resource and degradation of fish stock. Almost all fishing households around the Sone Beel continue to be trapped in poverty and this has been their status over generations. The key objective of planners and policy makers of the district and region is to create sufficient levels of non-fishing employment opportunities for fishing households so that no one is forced to take up fishing as the only livelihood. This would also address the problem of overcrowding in the Sone Beel.

1.2 Profile of the Study Area:

1.2.1 Geographical location of Sone Beel region: The Sone Beel is the largest freshwater tectonic wet land of southern Assam. It is located between 92°24'50" – 92°28'25" East and 24°36'40" – 24°44'30" North in Karimganj district of Assam (a major state in northeastern India) and falls in a valley geologically called syncline. The physiography of the district consists of small hillocks intervened by wide low valleys. The hillocks have northeast –

southwest and northeast – south southwest trend near the Borail range and north – south trend towards south away from the Borail range.

Notably, Sone Beel, the biggest ‘Beel’ (wetland) in Assam is situated in between two hill ranges, viz., the Badarpur-Saraspur range and the Chowkirmukh-Dohalia range. The maximum length and breadth of the wetland at Live Storage Level (LSL) are measured at 12.5 km and 3.9 km respectively during June to September. Interestingly, these values reduce to 4.07 km and 2.22 km respectively at its Dead Storage Level (DSL) during December to April. The area of Sone Beel at LSL is 3458.12 hectares while at DSL, the area diminishes to only 409.37 hectares. Thus, there is enormous variation of water volume in the Sone Beel across the monsoon and winter months. The length of the shoreline is measured at 35.4 km while mean depth is 0.29 metres (Kar et al., 2008). Sone Beel can be approached from either the district of Karimganj or Hailakandi, the nearest major urban location being the district Head Quarter town of Hailakandi. Hailakandi town is located approximately 20 km to the east of the Sone Beel and is road-way connected. Due to the proximity of Hailakandi town, majority of fish caught in the Sone Beel is marketed in Hailakandi.

The ecology of this region has direct influence on life and livelihood of the people of Sone Beel and its surrounding localities. Ecological situation of this region couple of years back was not similar with the contemporary situation. Depth of Sone Beel is decreasing day by day due to several reasons. Siltation is one of the major factors followed by dumping of garbage and disposal of sewage which causes reduction of depth of the beel. Huge amount of sand and humus is getting deposited by the river Singla in the beel. Moreover, due to shortage of rainfall, water does not remain in entire beel throughout the year. During winter water level reaches to the deepest part of the Beel and the upper part becomes a vast cultivable land. There are number of small Beel fisheries in the deepest parts which do not remain common property of fishermen in winter. These small beels fisheries are either government fisheries or private fisheries under possession of wealthy people of the region. Government Beel fisheries are under control of an organization named as Sone Beel Fishermen Co-operative Society Limited (SFCSL). The registered members of this organization can fish anywhere in the government Beel fisheries. SFCSL takes lease of the Beel fisheries from Assam Fishery Development Corporation, government of Assam during the dry season or winter months. In summer season the entire Sone Beel is filled with river water which flow-in from adjoining areas, and the entire Sone Beel becomes common property of the fishermen. Fishing is now a seasonal occupation for most of the fishermen. They search for other alternative occupations during dry season.

Due to changing ecological situations, flora and fauna are getting extinct day by day. Different variety of fish, for which Sone Beel was popular in the

locality earlier, are not available now a days. From the field investigation it was found that two varieties of fish locally known as *lacho* fish (*cirrhinus reba*) and *chapila* fish (*gudusia chapra*) are hardly found now. Variety as well as the quantity of fish is gradually decreasing. Bushes of plants were visible earlier but these are not available now a days. Varieties of grass were available earlier for which the farmers from distant places used to migrate temporarily with their cattle and buffalo in dry seasons. But now grass is not available like earlier times and migrants do not come for rearing cattle in the field. Trees named as *hijol* (*baringtonia actangula*) were available in huge numbers throughout entire Sone Beel but these are very rare now. Migratory birds particularly Siberian birds used to visit Sone Beel during winter but these are hardly found at present. Most informed people in the region (that includes fishermen) have a perception that there has been over-crowding of catchers in the Sone Beel in recent years due to the complete absence of entry restrictions during the peak fishing season. Moreover the use of improper fishing nets is the main cause of depletion of fish stock and fish species in the Sone Beel. Thus the excessive number of fish catchers fishing across seasons and indiscriminate use of fishing nets have made a challenging issue over sustainability of fishery resources and fish species in the Sone Beel.

Objective:

- (i) To examine if the use of fishing nets are appropriate to sustain the stock of fish.
- (ii) To suggest some measures in order to control overexploitation of fishery resources in the Sone Beel.

2. Government Restrictions on fish catch related issues in Assam:

(a) Restrictions on the use of nets:

According to Assam Fish Seed Act, 2005, (Assam Act No. XIV of 2005)¹ there are certain restrictions on the use of nets and restriction on fishing during breeding season on catching and selling of under sized fish are instructed under different rules. These are highlighted below.

Rule no 23:

- (1) The use of Berjal/Mahajal or Fasijal or any type of net with meshes less than 7 cm. bar/ 14 cm mesh is prohibited during breeding season beginning from the first day of the month of April and ending on the fifteen day of the month of July, both days inclusive, in any proclaimed fishery.
- (2) The use of net with less than 1 cm Bar/ 2 cm. mesh. Mosaijal in size is prohibited in any fishery throughout the year.
- (3) The department of Fisheries, Government of Assam instructed to Officers of the Fishery Department (not below rank of Fishery Extension Officer) shall have access to any records, register, document, or any other materials including craft and gear of the lessee and have the power to seize them if any breach of rules is detected during the course of inspection and can impose a penalty to the extent of Rs. 500/- or as fixed by the Government

from time to time.

Bana with less than 7 cm. sq. gaps fixed at the mouth of Beels or Dobas or at the boundaries of River Fisheries by which water is drained out it permissible to be used only during fishing season excepting the period between the first day of the month of May and the fifteen day of the month of July of the year, both days inclusive.”

(b) Restriction on Fishing during Breeding Season on Catch and Sale of Under Sized Fish:

Rule no 23 A:

(1) Catching of brood fish (fish carrying eggs and sperm) of the following species, namely-Rohu, Catla, (Bahu), Mrigal, Mali (Calbasu), Chital, Kharia, Pithia (Mahasol), Gharia and Kuri (Gonius) is prohibited during season beginning from the first day of the month of May and ending on the fifteen day of the month of July, both days inclusive, in any proclaimed fishery.

(2) Catching and killing, by any method, of fish for any purpose whatsoever including consumption and selling of under size fish of the following species, namely- Rohu, Catla, Bahu, Mrigal, Chital, Kharia, Pithia (Mahasul) Gharia below 23 cm in length and Mali (Calbasu), Gonius, Kurhi/ Bhagan below 10 cm in length is prohibited between the first day of August and 31st of October²: Provided that the above restriction may be relaxed by the order of the Directed of Fineries in writing, for piscicultural purposes only.

(3) All under sized fish specified in sub-rule (2) above caught in the nets shall either be let off into the fishery or supplied to the Fisheries Department by the lessee in live conditions at the rate to be fixed by Government from time to time.

Rule No 24:

No movable Bana with gap less than 7 cm sq. shall be used for fishing between the first day of the month of May and the fifteen day of the month of July, both days inclusive, in any rivers, Dobas or Bees or Fisheries.” Bana with less than 7 cm. sq. gaps fixed at the mouth of Beels or Dobas or at the boundaries of River Fisheries by which water is drained out it permissible to be used only during fishing season excepting the period between the first day of the month of May and the fifteen day of the month of July of the year, both days inclusive.

3. Materials and method of collection:

Collection of the data: The study is based on primary data .All the relevant data about the fishing gear and fishing method were collected through the field survey with the help of the local fishermen. A large number of fishermen were personally interviewed. A simple random sample method was applied in this study. The interviews were conducted just after sales of fishes when the catchers were relatively free and away from crowded gatherings. Interviewing became a lot easier when participants could relax and feel comfortable. Interviews were carried out in usual places of gathering and

hang-outs such as tea stalls adjacent to the transaction sites. The respondent of each team was mainly the skipper or boat owner who provided precise information regarding fishing practices of his team. Discussions also focused on overall constraints faced by fishers and the ecological condition of fishing sites.

Procedure of the study:

All the description of the gear and methods and other relevant statistics provided by the fishermen were recorded in the relevant section of the questionnaire. The gear and methods were - types of gears, seasonal variation of gears, types of indigenous fishing devices and fish composition. The fishing gears are classified into several groups for the better study of the same.

4. Result and discussion:

4.1 Fishing gears and Fish Catch Methods in Sone Beel:

Use of improper gears for fishing can hamper the fish population and potentiality of the Beel cannot be utilized properly. Keeping these in mind, the study conducts a detailed survey about different type of fishing gears and instruments used in fishing. The impact of these fishing gears in the fish population will be determined at the same time.

A diverse range of fishing gears and methods have been evolved over a long period of time by the fishermen of Sone Beel to capture a wide range of fish species. Various fishing gears are applied for the catching of fish in the Beel. The fishermen select the fishing gears according to the situation. But most of the fishing gears are of primitive type. The total potentiality of the Beel can be enhanced by applying the modern fishing gears.

Fish Catching Devices in the wetland of north-East India (Kar, 2013); the various types of fishing gears used in Sone Beel are given below.

- Hook and line gear: Lar barshi, Kupa barshi, Tanga barshi;
- Traps: Dori, Gui, Paran, Khati bundh
- Trawls: Chhat jal, Pelain
- Scooping gears: Dheki jal, Dorar jal, Kuchrung jal
- Entangling gears: Patan jal, Haran jal
- Encircling gears: maha jal, Dal jal, Chat jal, Ghuran jal, Jhaki jal, Rekh jal, Tana jal.
- Miscellaneous types of gears: Arar jal, Fal jal, Impoundment, without bailing vessel (locally called 'Debli'), Dhagamara.

Of the 24 categories of fishing gears recorded in Sone Beel, all but Pelain could be regarded as belonging to commercial types. Notwithstanding the above, seasonality in operation of some of the types of gears is of special significance. The monsoon varieties include the chat jal, Dorar jal, haran jal, kupa barshi, Tanga barshi, Gui, Paran, Dal jal, Rekh jal, Arar jal and Fal jal are the gears which are operated mainly during the winter. Dheki jal, Chat jal and Ghuran jal are seen in operation during both monsoon and dry seasons. Indeed, the Lar barshi, Dori, Pelain, Kuchrung jal, Patan jal and Jhaki jal has

no seasonality and are found in use throughout the year. Some of the traditional fishing gears used by the fishermen are briefly described below.

Fishing lines:

Fishing lines are widely used in traditional fisheries. Main principle of capture fishes is based on the feeding behavior of the target species. Fishing rods are locally known as “Borshi” which consist of a lone and slender bamboo rod slightly curved at the tip. Fine cotton or nylon thread with a hook is tied at the curved tip of the bamboo rod. Also floats are tied in nylon thread and bait generally consists of earthworms, small fishes, insects etc.

Fish hooks (Borshi and lar):

Besides these fishing gears, fishermen in some beel use hooks and fish gorges locally known as *Borshi* and *Lar* (fig. b) for catching fishes at the household level. In *borshi*, the hook containing bait is attached to a bamboo pole in hanging position via a cotton thread, whereas in *Lar* it is at the end part of long jute threads and is operated from boat only.

Dori and kathi:

Dori and kati which are shown in (fig. b) it is most commonly used during monsoon period. It is cylindrical shaped sieved bamboo trap, tapering at both ends. It is 0.6 to 1 meter length. It is placed in fast moving down small canal. It does not require any manipulation by hand. Some of these gears have valves at one end. When fitted to gentle water current, fish enters through the valves and get trapped inside the gear. They have to be kept along the water current. *Doris* are mainly fitted between the *kati band* (fig.a) with maintain some gaps. This type gears capture a very small size of fishes.

Lift nets or Bhelka Jal:

These are the nets, shown in (fig.e) where fish swims or are maneuvered over a flat or bag like piece of netting and are then caught by lifting the net. It is a triangular lift net fixed with bamboo poles operated from a bamboo platform built along the canal that brings in or drains out water from a beel or in a floodplain area with gentle flowing water.

Cast net:

Cast net it is a large circular type of net which is used to catch large and medium sized fishes. It is made up of cotton or indigenous fiber. It's look like an umbrella type. A strong cord is attached to the apex of the bell shaped net and a number of iron balls are fixed all along the margin. The mesh size of the net ranges from 1 cm. to 2.5 cm respectively. It is mostly used throughout the year in the Bekis River.

Berjal:

It is a large rectangular seine net as surrounding net is also known as *maha jal* (fig. j). The method of operation is very much similar to that of mahorijal. The net is shut in a semi circle with the shore as based and is hauled up on to the land by gradually pulling in either end. Two boats each of which carries half of the net do the paying of the net. The boat proceeds to an

appropriate distance from the shore turn to both side and row towards the shore, simultaneously realizing the net. The net is then hauled up and the catch is collected at the middle point of the net. Operation of Berjal required 10-15 fishermen along 2 boats. The catch composition comprises mainly the surface and column feeders like *Labeo* spp., *Cirrhinus* sp., *Mystus* spp, *Channa* spp., *Wallago attu*, *Ompok* spp. and *Rita rita*.

Phansijal: Phansijal is a common gill net. Phansijal nets are rectangular nets which are provided with head and foot edges. This small meshed drift net is more effective in entangling the fish. Its length varies from 100 m while the breadth from 0.5 to 1.5m. Smaller bamboo sticks are used as floats while burned clay are used as sinkers. It is thrown over the water particularly from one shore to another. Sometimes the net is tied against the current and allowed to drift over night. Fishes gets entangle in the net by their operculum.

These fishermen carry their fishing operations in the Sone Beel about 3 and 4 km respectively, away from the village. There are 20 individually owned fisheries in Sone Beel. Generally, the fishermen start for the Beel in the evening so as to reach there in time. On reaching, they fix the nets and sleep. Getting up at midnight they haul the nets, mend the holes if necessary and fix it again. When the net is fixed they eat their meals consisting of rice and fish either cooked at home or cooked on the banks itself. In the morning they haul the net and return to the shore with the entire catch of the two hauls. Two or three fishermen belonging to different families would then share a boat and carry these ropes and leave them in water either in the inland pool or in paddy fields, which are filled, with water. Later, fish caught is then equally distributed among the different members.

Production among the fishermen of the study area generally means their daily and seasonal catches. These catches range from low catch, average catch to big catch. During the peak fishing season, that is, mid May to mid September, the fishermen's catch range from big to average. During these big catches fishes like *rou*, *kos*, *borali*, *mirga*, *sol*, etc., are caught. On an average catch, they catch fishes like *rou*, *goroi*, *kawoi*, *magur*, *singora*, *baami* and so on. When they catch *moa*, *dorikona*, *saleconi*, *puthi*, *tora* and so on their catch is low. In Sone beel, the big catches for a single vessel generally range between 150 to 200 kg per day. On an average the catch ranges from 80 kg to 100 kg. However, it is observed that low catch does not exceed 80 kg per day when fish becomes scarce during the slack season, i.e., from October to March.

Pah Jal: It is also a Thela jal. The structure of the gear is same as mentioned under thela jal. But mesh size about 70.0 mm and is made of sunn-hemp instead of cotton. A man standing at a bow end of a boat while it is drifting operates it. It is said to be a special gear of hilsa and migratory carps.

Mushari Jal: It is used extensively all through the year except winter season. The net is made up of 2 - 5 pieces of rectangular nylon nets of mesh size 1 -

1.2 mm. Each piece of net varies 20 - 30 mm in length and 6 - 8 in breadth, tied together by nylon threads. The net is taken into the deep portion of the beel, stretched and the bottom rope is allowed to settle. The two nets are dragged towards the shore and brought together. As the central portion of the net comes to the shore, the net is lifted to form an effective bag. Generally 8 - 14 persons are required depending upon the size of the net for a single operation with the help of 2 - 3 boats. A single operation needs about 5 - 7 hours. The catch composition comprises mainly the surface and column feeders

Traditional fishing gears used by the fishermen in Sone Beel

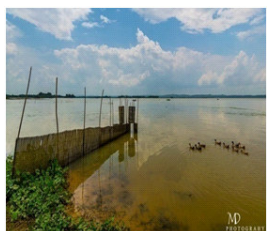


Fig. (a) Khati bundh.



Fig. (b) Lar barshi



Fig. (c) Dori and



Fig. (d) Sailing boat



Fig. (e) Bhelka jal (lift net)



Fig. (f) Pelain



Fig. (g) Jhaki jal



Fig. (h) Ghuran Jal



Fig. (i) Fishing boat



Fig. (j) Maha jal



Fig. (k) Boat landing

but this net captures almost all types of fishes.

4.2 Analysis for Net Using Fishing teams with Single and Paired Boats (Sample size = 165)

To begin with, the counting of boats visible in the water body during peak fishing hours of the survey week along with counting of the number of boats at the time of arrival are pivotal to the present study. The primary reason being that, there are no boat registration systems or log-books in place that can trace or record the exact number of boats or catchers during any point of time in the Sone Beel. For the present study hourly recording of the counting of boat sightings and arrival are found to be suitable in preparing a rough estimate of (i) approximate number of boats during the best fishing hours, and (ii) the population of boats as well as that of catchers. Both (i) and (ii) are largely unknown in the study area and have not been recorded by either the Panchayat or any other government or semi-government agency. According to unofficial estimates, apart from the numbers provided by the Sone Beel Fisherman's Co-operative Society (which is 4934 registered catchers) there exists a large sub-population of catchers who are active in fishing during the free fishing season. These catchers are neither enrolled nor registered in the Co-operative Society's list. Thus the registered catcher's list of 4934 fishermen comprise only a part of the total existing catchers engaged in the Beel during the peak fishing season when Sone Beel is an open access water body where fishing is free. Table 4.1.1 presents the data on counting of boat sightings and arrival in the Sone Beel during Survey Week (last week of April, 2019). The observations have been recorded in the fishing boat-landing sites throughout all days of the survey week.

Table 4.1.1. Boat Sightings and Arrival in the Sone Beel during Survey Week

Date	Sightings at 6 AM	Sightings at 7 AM	Arrivals in between 6 – 7 AM
15.04.2019	67	16	52
16.04. 2019	57	14	49
17.04. 2019	65	12	56
18.04. 2019	71	13	63
19.04. 2019	61	15	48
20.04. 2019	44	14	39
21.04. 2019	68	20	58
Mean	63.2	14.9	52.1

Source: Authors' estimates based on observations during field survey.

A priori information seems to suggest that fishing in the Sone Beel starts as early as 4:30 AM although some catchers exist who start late and stay on the water even beyond 9 AM. However, most catchers flock the Beel early in the morning, as the harvest has to be transported to nearby markets within 7 – 8 AM. Unfortunately due to practical reasons (infrastructural short

comings) the survey could not be started before 5 AM although a significant number of boats are expected to be sighted even before the 5 – 6 AM interval. As observed above sightings of boats fluctuate across the survey days. The figure varies between 44 and 71. Practically the same catchers are not expected to be present during the same hours on all days in a week as such unorganized system of fish catch is largely labour intensive and physically involving. Thus day to day fluctuations in boat count (sightings) are expected. Interestingly the count data on the number of boat arrivals in the ghats or landing sites are very similar to data on sightings. Since the catchers' primary objective is to sell the day's catch to dalals or middlemen (who are either the agents of some hotels/restaurants) or to final sellers the maximum concentration of arrivals is expected to be between 6 and 7 AM. However the maximum concentration of sightings is expected to be in between 5 to 6 AM. Hence these two time intervals are not arbitrary, rather they have been deliberately and purposefully chosen. The mean sightings are slightly higher compared to the mean number of arrivals. Expectedly the arrivals would go down with time as majority of catchers would try to market their catch within the time deadline. If the mean arrivals during the rush hour (6 – 7 AM) represent almost 50 percent of the total boats venturing out in the Sone Beel on a particular day, then the actual number of boats in the Beel during 4 AM and 9 AM (on a particular day) could be a little more than double the observed mean of 52.1. This is an effective but indirect (non-statistical) way of ascertaining the population of boats in the water body on any random day during the peak fishing season. Expressed otherwise there could be around 104 – 115 boats fishing in the Sone Beel waters in between 5 to 6 AM.

The total crew member ranges between two to four persons. After fishing they return the landing points or the ghats and have to queue up for grading and selling in the fish auctions (called *macher arath*, i.e., the whole sale trading and transaction place). The catch by each team has to be sorted according to species or fish types. This makes the process of sale easier. The number of fish auctions appearing in the landing site is 3 to 4 and this number fluctuates depending on quantity of harvest or catch. However 2 – 3 auctions are regularly and continuously found to be active in fish transactions.

Table 4.1.2.

Types of Fish Commonly Caught by Catchers in the Sone Beel

Traditional Local Name	Scientific Name [□]	Status of occurrence
Aar	<i>Sperata aor</i>	++
Baim	<i>Mastacembelus armatus</i>	+++
Bele	<i>Glossogobius giuris</i>	-
Boal	<i>Wallago attu</i>	++
Chapila	<i>Gudusia Chapra</i>	+
Darkina	<i>Rasbora daniconius</i>	-
Katla	<i>Catla catla</i>	+
Koi	<i>Anabas testudineus</i>	++

Moka/Morola	<i>Amblypharyngodon</i>	++
Pabda	<i>Ompok pabo</i>	+
Pangas	<i>Pangasius pangasius</i>	++
Punthi	<i>Puntius chola</i>	+++
Rohu	<i>Labeo rohita</i>	++
Shingi/magur	<i>Gagata youssoufi</i>	++
Shol	<i>Channa striata</i>	++
Silver carp	<i>Hypophthalmichthys molitrix</i>	++
Tengra	<i>Batasio batasio</i>	+++
Ilish	<i>Hilsa ilisha</i>	-
Chitol	<i>Chitala chitala</i>	-
Telapia	<i>Oreochromis mossambicus</i>	-
Bhetki	<i>Lates Calcarifer</i>	-

Source: Observations based on sample survey. ‘+++’ represent abundant, ‘++’ represent frequent, ‘+’ represent rare and ‘-’ represent absent [^] scientific names are retrieved from <http://en.bdfish.org/2010/07/freshwater-and-estuarine-fishes-of-bangladesh/>

Table 4.1.2 shows the types of fish commonly found and caught in the Sone Beel. Most of the fishes enlisted above fall under small species (such as *moka*, *punthi*, *tengra*, *Koi*, etc.) These are usually caught by using gill nets and some other traditional non-net fishing equipments in form of fish traps like cylindrical drum traps, vertical slit traps (locally known as *dori* and *kathi*) popularly used in northeastern India (including Bangladesh, and Myanmar region). The bigger sized species like *Rohu*, *Katla*, *Boal*, *Aar*, etc, are mainly caught by using seine net or drag net mainly by the paired boat fishing teams – i.e., pair boats with 6 to 8 catchers. From the above table it is observed some of the fishes for example punthi, tengra, rohu, boal etc. these are found to be abundant Table also revealed status of occurrence of 54 taxa of fishes in Sonebeel of which 22 taxa were abundant, 22 were frequent, 7 taxa were rare and three varieties of fish locally known as Lacho fish (*Cirrhinus reba*), Chapila fish (*Gudusia chapra*) and Chital (*Chitala chitala*) were hardly found. Gradual decline in ichthiodiversity indicates overexploitation of fish resources and improper use of different fishing gears in the absence of other livelihood options. Though in Assam, there is restriction on fishing, (Development of Fisheries, Government of Assam, Rule No 23-A) and also use of net is prohibited during breeding season (Rule no 23). Fishermen communities of the study area are using all these fishing gears indiscriminately and in an unplanned way. Small as well as large sized fishes are being captured in improper way to earn revenue.

5.1 Summary of the Study:

The present study revealed that fishermen of the study area have been using 17 different types of fishing gears to catch fish. The majority of the inhabitants of the study area mainly dependent on the fisheries and agriculture for their livelihood and traditional fishing gears are playing very important role in maintenance of livelihood of the people of the study area. The present study revealed that the production and diversity of the fish species are declining

day by day. If fish catching in Sone beel continued in this way without control then many valuable fish species will become extinct and Sone beel would be empty of fish in near future. Most catchers are not confident about other occupations as they are mostly unskilled in any non-fishing work. Almost all respondents felt that uncontrolled fishing in the area during peak fishing seasons is the consequence of overdependence on fishing and this is leading to falling fish stock in the lake.

This can be minimized to a large extent if knowledge regarding scientific technique of using different fishing gears are given to fishermen of the study area and also if controlled fishing is practiced during breeding season. Govt., NGOs and educated people of the area can come forward to spread awareness among fisherman community regarding harmful effects of over-exploitation of fishes. Poor fishermen community should be provided with alternative livelihood options. Finally, efforts should be undertaken to develop ecosystem-based management strategies and participation and empowerment of fisherman community should be ensured for sustainable development of these resources.

The immediate goal for planners and policy makers of the district and region would be to create sufficient levels of non-fishing employment opportunities for fishing households so that no traditional fishing household is forced to take up fishing as the only livelihood. This would address the issue of overcrowding and overfishing in the Sone Beel thereby checking the loss of fish stock and aquatic species in the region.

The key issues of concern as identified by the fishermen themselves include poor and inefficient fishing gears and vessels, lack of capital, poor fisheries management, limited access to larger markets (e.g. Silchar, Guwahati and Agartala) coupled with poor handling facilities, poor infrastructure and high post-harvest losses. Lack of alternative employment opportunities and rising number of fishing households have possibly been the main cause of over-crowding of catchers leading to over-exploitation of the resource and degradation of fish stock. Almost all fishing households around the Sone Beel continue to be trapped in poverty and this has been their status over generations.

5.2 Policy Recommendations:

Coming to the specific issues related to sustainability, several problem areas were identified during the survey.

First, boats used by catchers are not registered with the Fisherman's Co-operative Society. There is no boat identification number assigned. In other words there is no formal mechanism in place to keep track of the exact population of boats. Since there is no control on fishing during the monsoon months, the exact number of boat on the water cannot be enumerated. Assignment of a boat identification number or a registration number is the key to control over fish catch. Obviously there is no log book or log sheet to formally record who exactly are fishing at any point of time. The suggestion is that the society must maintain a record of the total population of boats

operating on the one hand and number of boats in operation during a 24 hour period on the other. The state fishery department must ration the labour time (say 4 days a week) spent by each fishing team so that even during the peak season anyone and everyone is not allowed free access.

Second, there is a government regulation in place regarding the exact gapping of the nets to be using in fishing but it is almost always violated. In other words there is no check or control over the type of nets used. It is the indiscriminate use of the dense net that is responsible for loss of non-fish species – especially small species in the Sone Beel. Thus there has to be regular surveillance by some government appointed dedicated and trained team to keep a check on the use of unapproved nets. The catchers are tempted to use unapproved nets in an attempt to harvest more using the same labour time. But in doing so they disturb the overall ecological balance of the water body which ultimately affect the fish population adversely. The survey revealed that small varieties of fish are caught during the peak season. The catchers themselves reported that large sized fish is almost extinct in the Sone Beel. This is because even the large species of fish do not

Third, the fishermen were not found to be using any type of storage facility as refrigeration even for a limited period with the help of ice-packs or ice-boxes. To avoid distressed or forced sale at throw away prices, government has to provide temporary refrigeration facilities in the area. Apart from forced sale, refrigeration would allow better fish quality for consumers of the region.

Fourth, because of the open access nature of fishing any boat can travel to any corner of the Beel and there is no demarcated or well defined area or enclosure for fish breeding. This is a biologically crucial aspect as because fish population can be restored or even grown by demarcating an area within the Sone Beel for fish breeding. Since there is no dedicated breeding ground at present stock depletion is most likely if there is over fishing. Fishing boats should not be allowed to enter the breeding area. Protecting the breeding area could be the most significant step in restoring fish stock. This in turn would raise the catch levels and hence revenue earned without raising labour time.

Fifth, the immediate goal for planners and policy makers of the district and region would be to create sufficient levels of non-fishing employment opportunities for fishing households so that no traditional fishing household is forced to take up fishing as the only livelihood. This would address the issue of overcrowding and overfishing in the Sone Beel thereby checking the loss of fish stock and aquatic species in the region. Almost all catchers complained to the survey team members that the same catch effort is resulting in lower catch in recent years. In other words catch levels are falling for the same fishing effort. This perception mostly among experienced fishermen is clearly indicative of declining fish stock in the Sone Beel. Thus catch has to be controlled along with over-crowding. The best policy would be not to allow any fishing team to fish for more than 4 to 5 days per week on a rotation

basis. This may solve the problem of overcrowding to an extent.

Sixth, the dry season or winter season has not been considered in the study. During winter the water body shrinks enormously and it is leased out to wealthy businessmen of the region who partition the remaining area with the help of bamboo barricades. These partitioned water bodies, around 5 to 6 bighas on an average, are utilized for fish production during November to April. The State Fishery Department can provide incentives to these large wealthy fish growers so that the responsibility of fish breeding may be entrusted upon them.

Seventh, the size of catch on an average is small in the Sone Beel. Even the larger species such as *Rohu*, *Katla*, *Aar*, *Boal*, among a few others are not allowed to attain full sizes in the Beel. For instance at the fish transactions site the average weight of four above mentioned species was found to be just 472 grams, which is a shocking discovery. This is so because each of these four species is capable of attaining an average weight of 2.5 to 3.2 kg within 5 to 8 weeks. The maximum weight may go up 4 kg beyond 8 weeks. Thus a dedicated area apart from the breeding area may be demarcated for.

Conclusion:

The present study revealed that fishermen of the study area have been using 17 different types of fishing gears to catch fish. The majority of the inhabitants of the study area mainly dependent on the fisheries and agriculture for their livelihood and traditional fishing gears are playing very important role in maintenance of livelihood of the people of the study area. The present study revealed that the production and diversity of the fish species are declining day by day. If fish catching in Sone beel continued in this way without control then many valuable fish species will become extinct and Sone beel would be empty of fish in near future. This can be minimized to a large extent if knowledge regarding scientific technique of using different fishing gears are given to fishermen of the study area and also if controlled fishing is practiced during breeding season. Govt., NGOs and educated people of the area can come forward to spread awareness among fisherman community regarding harmful effects of over-exploitation of fishes. Poor fishermen community should be provided with alternative livelihood options. Finally, efforts should be undertaken to develop ecosystem-based management strategies and participation and empowerment of fisherman community should

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The influence of Artificial Intelligence, Augmented Reality and Virtual Reality on Shopping Experiences of the Indian Buyers

* Tanu Dang

Abstract- Purpose- The aim & objective of this research paper is to find the effect & implications of (AI) artificial intelligence, (AR) Augmented Reality and (VR) Virtual Reality on the shopping experience of the Indian consumers and to know whether AI is changing their shopping behaviour.

Design/methodology/approach- This paper draws on a non-probability convenience sample of 66 respondents to explore the influence of AI and VR on the shopping behaviour & experience of Indian consumers. The paper is based on exploratory and descriptive research design to analyse how use of AI and VR by the advertisers is changing the buying experience of the consumers. The primary data for the research was collected through a structured questionnaire filled online by the respondents and secondary data was collected by reviewing the related literature through offline library and online digital library. The collected data was analysed with the help of a statistical package named as IBM- SPSS 23.0.

Research limitations- Since the selected topic is AI (Artificial Intelligence) which is very new concept for most of the respondents, the researcher has focussed the research on the educated respondents who are aware about the application of artificial intelligence on various shopping platforms. To ensure maximum representation, data was randomly collected from respondents located in Lucknow and Delhi through Google forms.

Practical implications- The practical implication of the above topic is to understand how these new technological tools are changing the buying experiences of the consumers and also to analyse whether it will effect over the counter sales in the coming years.

Originality/value- Though AI (Artificial Intelligence) is not new terminology for the internet savvy people but it is totally new for the general consumer who purchase a variety of goods and services through online platforms with the assistance of artificial Intelligence technology. This paper will explore the new facts and new knowledge about the relationship between AI (Artificial Intelligence) and Shopping experience.

Key Words- Artificial Intelligence, Virtual Reality, Online Shopping, Augmented Reality, Buying Behaviour.

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Introduction: AI (Artificial Intelligence) is the most advanced technology in the field of information technology and this is widely used in every aspect of daily life of human being. Artificial Intelligence is the best combination of a human psychology and a machine psychology to create an automated environment in which most of the consumers operate. Most people think that artificial intelligence means the Robot or Robotics who work for human but this is not true. In pure information technology, artificial intelligence is the blending of various MIS (management information system) terminology like DSS (Decision Support System), ES (Expert system), KM (Knowledge Management), DW (Data Warehouse)&DM (Data Mining) but this terminology is a technological Jargon for a common man. We often see the applications of artificial intelligence in various government and private management systems and use of virtual imaging in the Hollywood & Bollywood Movie like Matrix, Mission Impossible, Die Hard Series, Robot, Bahubali etc. but the AI (Artificial Intelligence) and VR (Virtual Reality) is not limited only to the management matrix or film industry. Nowadays a very popular video is viral on the Internet of Sophia, a very pretty, charming, gorgeous robot which is the best example of artificial intelligence in the fast changing environment of WhatsApp, Facebook, Twitter, Instagram, YouTube and Google etc. This Sophia robot was first introduced in an international seminar and got her rare national citizenship of machine which is a very rare event of its kind. Earlier, no robot has been awarded with national citizenship. Sophia may make many Indian viewers remember the popular Indian flick 'Robot' starring Rajnikant as a Robot named as Chitty who could perform each and every work within seconds including the baby birth at the Hospital and the south Indian film director Raja Mouli brilliantly used virtual imaging in his film to create the real environment for the audience.

However, Professor Hawkins, a well-known scientist of space technology had pointed out the ill effects of artificial intelligence. He had warned that AI will prove to be a total destruction for human society in future because a time will come when a machine loaded with artificial intelligence will refuse to take instruction given by its own creator. These robots will also replicate their numbers as we have seen in the Bollywood movie robot and this will endanger the whole human race.

Artificial Intelligence has been around since 1956, however brands have starting using this technology for advertising only recently with the aim to offer improved customer experience. Many of you must have used automatic vending machines for Tea, Coffee, Soups etc, this was the first stage in the field of artificial intelligence and you have also seen the semi-automatic washing machine or fully automatic washing machine, this is the second stage in the field of artificial intelligence technology used in the business world. Many companies have already installed AI solutions for handling queries and complaints of their customers 365 days a year, 24 x 7, thereby increasing

their popularity and trust among the existing and prospective customers with their uninterrupted customer care services. The AI enabled automated customer care services offered by most of the big brands today allow customers to ask complex questions and be provided with a response that is more empathetic and relevant to their grievance. Through AI chatbots it has become easier for the customer to track the delivery of their online purchases. Earlier marketers used to invest huge amount of money on research to understand and interpret consumer behaviour and preferences but now the AI algorithms use the responses of the consumer to offer the product most suited to their requirement.

Recently, the Global CEO of Google Mr Sundar Pichai launched an application that is a Google Assistant that will make & receive calls on behalf of an individual in a virtual environment and the receiver will feel that it is a real person calling. Most of the people also use an application of Google that is Google map for the navigation, route finder, shortest route, best route, travel time with different mode of transportation like car, bus, auto, bike etc. This is another example that explains the concept of the usability of artificial intelligence in daily life of a human being.

Virtual Reality is an interactive computer generated experience which takes place within a simulated environment. This immersive environment can be similar to the real world or it can be totally imaginary. It mainly incorporates auditory and visual feedback but may involve other sensory feedbacks as well.

This technology immerses users in a computer generated virtual environment. In certain cases the users can also move in digital environments and hear sounds. Hand controls can also be used to enhance VR experiences. VR interaction requires the use of sensory VR headset. This VR set may be connected to computer or gaming console. Google Cardboard is a popular standalone device which does not require computer or gaming console connectivity.

Augmented reality (AR) is a type of interactive, reality-based display environment that takes the capabilities of computer generated display, sound, text and effects to enhance the user's real-world experience. Augmented reality combines real and computer-based scenes and images to deliver a unified but enhanced view of the world.

In augmented reality, users can interact with the digital content while being in the real world. The popular game Pokemon Go is the most vivid example of augmented reality in which the players keep running in their real environments in search of small virtual creatures.

Both AR and VR are changing the buying experiences of the consumers. For buying a car earlier the buyers used to visit five to ten dealerships before finalising the deal which was considered boring and time consuming. But now through VR the customer can get personalised service without the hassle

of visiting the store through engaging in virtual test drive. According to EndriTolka, COO and Co – founder YouVisit, “ Brands like BMW, Audi, Porche, KIA, Volkswagen, Lexus, Chevrolet and Honda have all incorporated virtual reality experiences into their marketing strategy. This not only helps buyers to configure and envision multiple models with different colours and interior choices but also helps the car maker as they do not need to maintain a large stock of vehicles in their showrooms. The makers are also planning to open new virtual showrooms in shopping malls and other locations.

AR on the other hand can be useful in helping consumers see products in context. Retailers across a number of industries have integrated AR technology into the in store experience. Lacoste for example created the LCST Lacoste AR mobile app that customers could use to virtually try on shoes. The app also created AR experiences with window displays. Apparel brands have also used AR mirrors to let customers try products on more conveniently. Timberland for example, had a virtual fitting room created with Kinect technology. They turned the fitting room into one of the main window displays. This enables passersby to virtually try on every piece of clothing available in the store using hand gestures. Web and Facebook apps use a PC's built in camera and AR to create a similar experience for home users.

In India Myntra used AR technology to give 360 degree experience to its customers. The DressingRoom app has been launched by Gap.inc to help customers try on its clothes virtually. Based on vital measurements like height and weight, the app creates a 3 D mannequin based on the entered measurements. It provides a 360 degree view of the model and shows how a chosen garment will look on it.

Apart from retail, gaming, education sector in India has picked up VR tools. Byju, the EdTech company is using virtual reality to bring new angle to experiential learning. There is no denying of the fact that with more and more improved technologies, buying experiences of the consumers will undergo a rapid transition where more and more experiences will be sought through mediated technologies than through physical presence.

Significance of the Study:

The significance of this study is that it will explore the current engagement of the buyers with these technologies and their experiences will help the decision makers and marketers to make desired changes in the processes to make AI enabled marketing more popular and viable.

Review of Related Literature:

The researcher searched various literature on how AI, AR and VR are influencing the shopping experiences of the buyers through online mode such as DelNet, J-Gate, Google Scholars, the online solution platform for searching the research article and off line mode through the library books, magazines, Business Newspapers, the previous works on artificial intelligence, on shopping behaviour, Internet etc. and found that most of the authors have

focussed on how International buyers are demanding more and more technology driven buying experiences. Therefore, the researcher found it relevant to explore these concepts in terms of Indian consumers.

Objectives: On the basis of reviewed literature the researcher has designed the following objectives which are related with the selected topic.

1. To explore the various determinants of artificial intelligence used in the shopping experience of the Indian consumers in their daily life.
2. To know the relationship between the mediating technologies (AI/AR/VR) & the shopping experience of Indian consumers

Hypothesis: On the basis of above objectives and related literature review the researcher has formulated the Null Hypothesis such as

H₀: There is no significant relationship between mediating technologies (AI/AR/VR)& the shopping experience of the Indian consumers.

Research Methodology:

Population: The population for the study was the entire educated customers who are familiar with the new technology used in the field of retail business or those customers who are technology savvy. Since this type of customers are comparatively few in number, therefore the researcher used Google forms to collect the primary data by sending the questionnaire in Google Form format to the known and highly educated respondents who know the use of artificial intelligence in the field of shopping and daily life.

Sampling frame: The sampling frame in this case was the list of all the email address of those respondents who are familiar with the artificial intelligence technology use it in shopping and daily life activities.

Sample Size: The form was sent to 100 participants out of which 66 responded. All the respondents were educated and familiar with the new technology in the field of shopping.

Sampling element: The sampling element in this case was the single respondent who knows the meaning and application of artificial intelligence.

Sampling Technique: For the above study the researcher applied the non-probability convenience sampling technique because the respondents who are technology savvy are not easily available, therefore it was the best sampling technique for the required analysis.

Research Design : In this case the exploratory as well as descriptive research design is used such as for the new facts, new knowledge, more in-depth study and formulation of null hypothesis; the researchers has applied the exploratory research design and for the testing of above null hypothesis and arriving at conclusion oriented research for decision making, the descriptive research design was applied.

Data Collection: The schedule and structured questionnaire method were used for the primary data collection and the researcher reviewed various secondary data source such as previous work on artificial intelligence and the relationship of artificial intelligence with the shopping experience in the field

of retail business and the applicability, importance, significance of artificial intelligence in daily life of human being.

Statistical Tools: The researcher has applied the first stage analysis via frequency test and second stage analysis through cross tabs between two related variables under study. The data analysis package used for this study was IBM SPSS 23.0, a statistical package for social science designed by International Business Machine company.

Decision Rule: In this study the researcher has fixed in advance 5% level of significance that means the researcher would be 5 % wrong or 95% confident (correct) in the decision making or hypothesis testing.

If sig. value (p Value) will be less than 0.05 than reject Null Hypothesis (H0)

If sig. value (p value) is greater than 0.05 accept Null Hypothesis (H0)
Since Alternative Hypothesis is opposite of Null Hypothesis therefore we can also use the following decision rule such as

If sig. value (P Value) will be less than 0.05 than Accept Alternative Hypothesis (H1)

If sig. value (p value) is greater than 0.05 reject Alternative Hypothesis (H1)

Data Analysis:

Reliability & Validity Analysis: The researcher has collected primary data with the help of structured questionnaire, now the next step is to check the reliability and validity of the collected data. After checking reliability and validity of the data the researcher is ready to apply any statistical tools and also to test Null hypothesis (Ho) and alternative Hypothesis (H1). Reliability is the property by which consistent results are achieved when we repeat the measurement of something. After designing the structured questionnaire the next thing is the generation of scale items which is decided by the use of Reliability Analysis and Validity Analysis. For the above purpose the researcher has used the 5 point Likert scale.

Reliability Analysis: After conducting the reliability analysis the results relating to a minimum Cronbach's alpha of 0.70, were checked for final selection of items in the constructs.

Reliability Statistics:

Cronbach's Alpha	N of Items
.817	16

From the above SPSS output of reliability analysis, the Cronbach's Alpha is **0.817** for the questions based on 5 point likert scale which is above the minimum acceptable range of Cronbach's Alpha (0.7), therefore the researcher has concluded that the selected scale items are reliable for the further statistical

analysis.

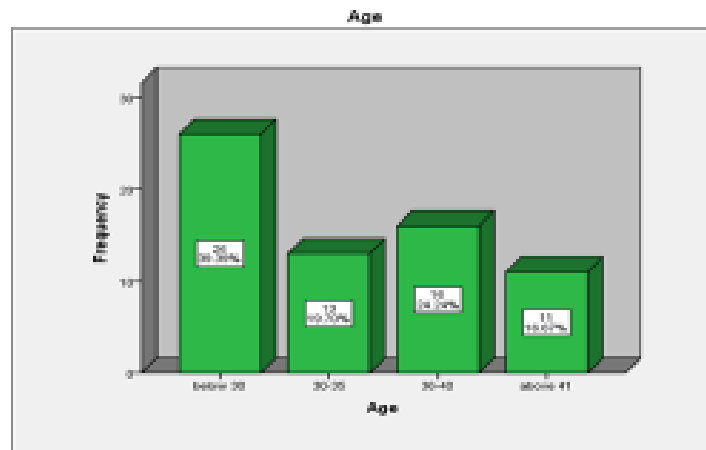
Validity Analysis: Validity is the property by which a questionnaire measures what it is supposed to measure. There are various forms of validity analysis such as Discriminant validity, Content Validity, Predictive Validity but the researcher has applied here Content Validity that is the representativeness of what is measured, in drawing conclusions about the property. This was done through the expert opinion in the field of technology who are aware about the terminology AI (Artificial Intelligence), VR (Virtual Reality) and AR (Augmented Reality).

First stage Analysis

Frequency Test for Demographic profile

Age

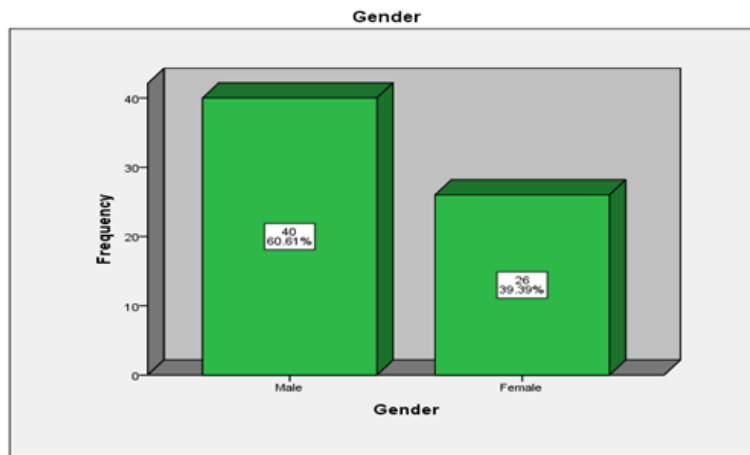
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 30	26	39.4	39.4	39.4
	30-35	13	19.7	19.7	59.1
	36-40	16	24.2	24.2	83.3
	above 41	11	16.7	16.7	100.0
	Total	66	100.0	100.0	



From the above frequency table and bar chart it is clear that most of the respondents are below 30 years of age that is young respondents who are very much familiar with the new technology and artificial intelligence used in the field of shopping, therefore the researcher has targeted the right respondents for the above study.

Gender

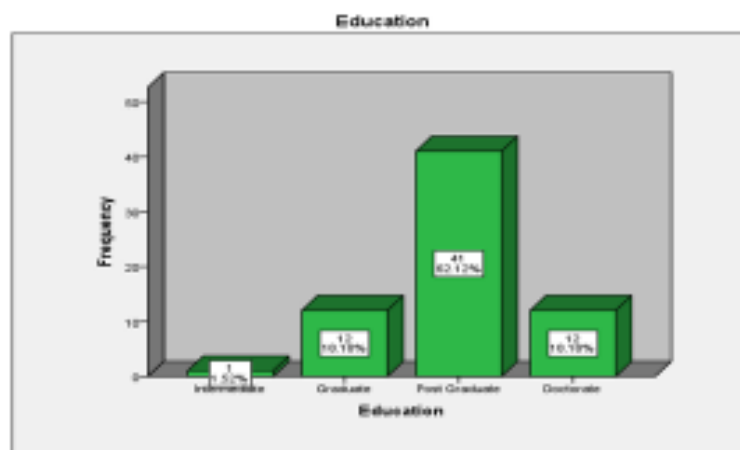
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	40	60.6	60.6	60.6
	Female	26	39.4	39.4	100.0
	Total	66	100.0	100.0	



From the above table and bar chart 60.61% respondents are male where as 39.39% respondents are female, therefore there is a high participation of male in comparison to female respondents that also means that male respondents are more familiar with technology in comparison to females but it is also a well accepted fact that females are more interested in shopping, hence both the gender have participated in this study.

Education

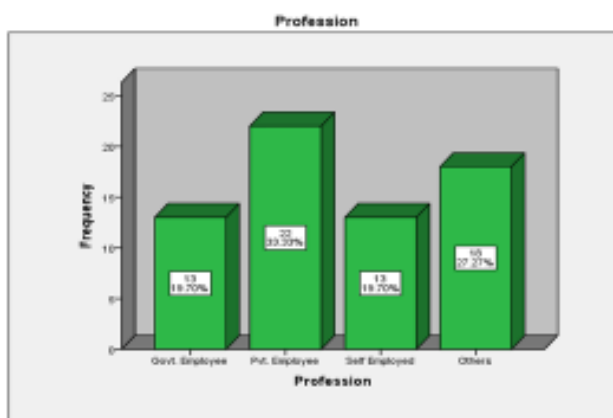
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Intermediate	1	1.5	1.5	1.5
	Graduate	12	18.2	18.2	19.7
	Post Graduate	41	62.1	62.1	81.8
	Doctorate	12	18.2	18.2	100.0
	Total	66	100.0	100.0	



From the above table and bar chart it is clear that maximum 62.12% respondents are post graduate that also supports the use of new technology by the highly educated respondents who are the prime target for this study.

Profession

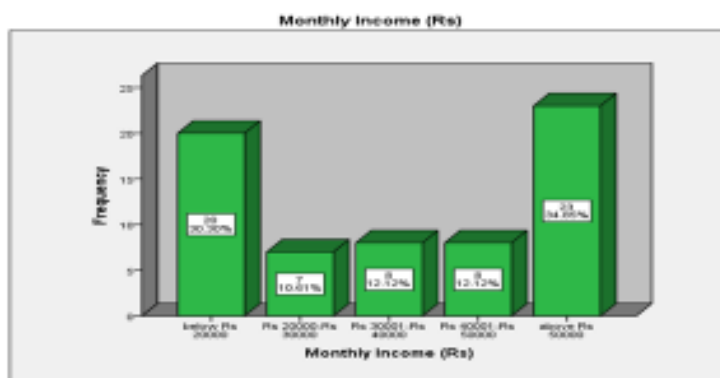
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Govt. Employee	13	19.7	19.7	19.7
	Pvt. Employee	22	33.3	33.3	53.0
	Self Employed	13	19.7	19.7	72.7
	Others	18	27.3	27.3	100.0
	Total	66	100.0	100.0	



From the above table and bar chart it is clear that respondents from a variety of profession that is Govt. Employee, Pvt. Employee, Self Employed and others have participated to validate this study but maximum participation that is 33.33 % is from the Pvt. Employee.

Monthly Income (Rs)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below Rs 20000	20	30.3	30.3	30.3
	Rs 20000-Rs 30000	7	10.6	10.6	40.9
	Rs 30001-Rs 40000	8	12.1	12.1	53.0
	Rs 40001-Rs 50000	8	12.1	12.1	65.2
	above Rs 50000	23	34.8	34.8	100.0
	Total	66	100.0	100.0	

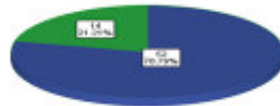


From the above table and chart most of the respondents are from the low and high income group that means the new technology is familiar and available for the high income groups (Example-Highly educated) and low income groups (Example- Students) that also supports the study that is Artificial Intelligence is changing the shopping experience of Indian consumer.

Frequency Test for Artificial Intelligence Awareness in shopping Awareness about the applications of artificial intelligence in shopping.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	52	78.8	78.8	78.8
	No	14	21.2	21.2	100.0
	Total	66	100.0	100.0	

Awareness about the applications of artificial intelligence in shopping.

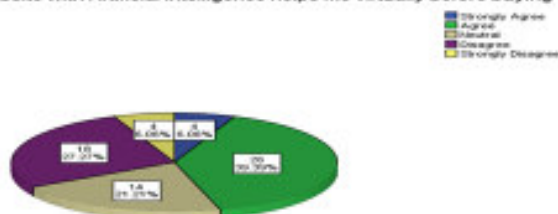


From the above frequency table and pie chart it is clear that 78.79% respondents are aware about the applications of artificial intelligence in shopping where as 21.21 % are not aware. Therefore, the above also supports the relationship between the artificial intelligence and shopping experience.

Website with AR/VR tools help me virtually before buying

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	4	6.1	6.1	6.1
	Agree	26	39.4	39.4	45.5
	Neutral	14	21.2	21.2	66.7
	Disagree	18	27.3	27.3	93.9
	Strongly Disagree	4	6.1	6.1	100.0
	Total	66	100.0	100.0	

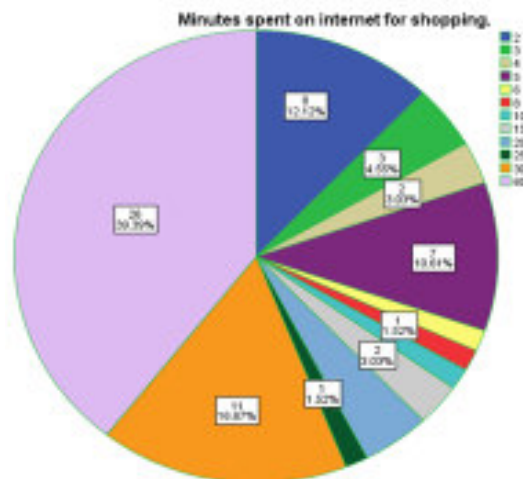
Website with Artificial Intelligence helps me virtually before buying



From the above table and pie chart it is clear that 39.39 % of respondents agree the website with Augmented Reality and Virtual Reality tools facilitate buying decisions during shopping and enhance the shopping experience whereas only 6.1 % respondents strongly disagree with this statement.

Minutes spent on internet for shopping.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	8	12.1	12.1	12.1
	3	3	4.5	4.5	16.7
	4	2	3.0	3.0	19.7
	5	7	10.6	10.6	30.3
	6	1	1.5	1.5	31.8
	8	1	1.5	1.5	33.3
	10	1	1.5	1.5	34.8
	15	2	3.0	3.0	37.9
	20	3	4.5	4.5	42.4
	25	1	1.5	1.5	43.9
	30	11	16.7	16.7	60.6
	60	26	39.4	39.4	100.0
	Total	66	100.0	100.0	



From the above table and pie chart it is very clear that 39.39 % of respondents spend their 60 minutes on internet for shopping that means most of the respondents use internet for shopping and other purpose.

The most trusted e-commerce website for shopping.

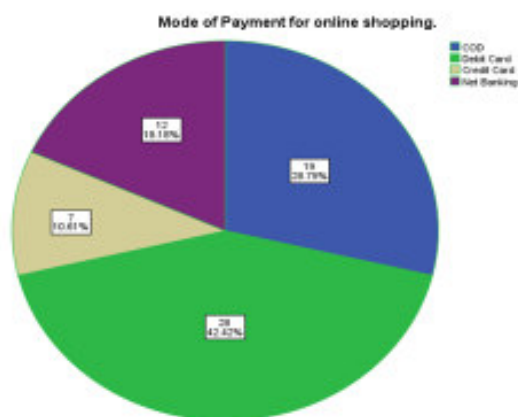
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Amazon	46	69.7	69.7	69.7
	Flipkart	15	22.7	22.7	92.4
	Jabong	2	3.0	3.0	95.5
	Myntra	1	1.5	1.5	97.0
	Snapdeal	2	3.0	3.0	100.0
	Total	66	100.0	100.0	



From the above table and pie chart it is clear that 69.70% respondents are using the Amazon web portal for shopping which means that the most trusted website for shopping is Amazon while Flipkart ranks as the 2nd best shopping destination for Indian consumers.

Payment mode for online shopping.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	COD	19	28.8	28.8	28.8
	Debit Card	28	42.4	42.4	71.2
	Credit Card	7	10.6	10.6	81.8
	Net Banking	12	18.2	18.2	100.0
	Total	66	100.0	100.0	



From the above table and pie chart it is clear that maximum 42.42% respondents use the Debit card for payment and second best alternative is Cash on Delivery option for the payment of goods and services. Most respondents opined that Debit card is a easy and safe means for shopping

offline or online.

Second Stage Analysis (Chi Square Test)

Artificial Intelligence *Website which helps me virtually before buying

Crosstab

Count

		Website with artificial Intelligence helps me virtually before buying					Total
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Awareness of Artificial Intelligence in shopping.	Yes	4	24	12	9	3	52
	No	0	2	2	9	1	14
Total		4	26	14	18	4	66

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.283 ^a	4	0.01
Likelihood Ratio	13.174	4	0.01
Linear-by-Linear Association	8.987	1	0.003
N of Valid Cases	66		

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is .85.

From the above chi square test table the sig. value (p value = 0.01) which is less than 0.05 (commonly accepted level of significance), hence we reject the Null Hypothesis. Therefore we may conclude that there is a significant relationship between mediating technologies (AI/AR/VR) and the shopping behaviour. Thus, the availability and use of these technologies have an influence on the and shopping experience of the buyers.

Results and Interpretation:

In the final analysis & interpretation we can conclude that most of the young respondents are aware about the use of artificial intelligence, augmented reality and virtual reality on online shopping platforms. This study found higher participation of male in comparison to female respondents that also means that male respondents are more familiar with technology in comparison to technology but it is well known that female are more interested in shopping, hence both the gender have participated in this study. Maximum 62.12% respondents are post graduate that also support the use of new technology by the highly educated respondents who are the prime target for this study. The respondents ranged from the low and high income group which means that the new technology is familiar and available for both the high income groups

(Example-Highly educated) and low income groups (Example- Students). This also means that both groups are using online buying platforms for making purchases. 78.79% respondents are aware about the applications of artificial intelligence in shopping whereas 21.21 % are not aware. This also proves that most of the online buyers are using these technological tools to enhance their buying experience online. 39.39% of respondents agree the website with artificial intelligence helps in the shopping and enhance the shopping experience whereas only 6.1 % respondents strongly disagree about this condition. 69.70% respondents are using the Amazon web portal for shopping which makes it the most trusted website for shopping and Flipkart is the 2nd best destination for shopping among Indian consumers. 42.42% respondents use the Debit card for payment and second best alternative is Cash on Delivery option for the payment of goods and services that means Debit card is more popular and easy & safe to use for shopping offline or online. Since the sig. value (p value = 0.01) is less than 0.05 (commonly accepted level of significance), hence reject the Null Hypothesis, therefore the researcher can conclude at 95 % confidence interval that Artificial Intelligence, Augmented Reality and Virtual Reality are largely influencing the online buying experiences of the consumers. However, in India the use of these technologies is still at nascent stage but with more and more buyers shifting to online shopping platforms, the brands need to make this new joint more engaging for them.

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A Study on Customer Satisfaction on SBI E-Banking in Shahdol (M.P.)

* Abdhesh Prasad Patel

** B. K. Upadhyay

Abstract- *The aim of the Research Paper is to Measure the level of customer Satisfaction for E- Banking of "SBI Bank". The purpose of the study is to reveal the customer perception of the bank which would be value for the future growth of the bank E-Banking than Manual Banking. The finding based on different independent variables (Service quality and Security) showed that all these variables influenced occupation customers satisfaction in shahdol banking sector. There is Impact and significant relationship between the age group customers and occupation customers.*

Key Words- E-Banking, SBI bank, Security, Service quality and customer Satisfaction

Introduction: In recent time, Electronic banking is defined as the automated delivery of new and traditional banking product and services directly to customers through electronic, interactive communication channels. This on-line channel enables customers to information and initiate transaction on a 24x7, boundary less basis. E banking is also called online banking, PC banking and internet banking. E-banking may include electronic funds transfers, Tax, SMS Alerts, customer service inquiries, and product and services information allow transactions from one account to another, take loan application, open new accounts and commercial services etc.

All functionalities other than cash and clearing have been extended to individual retail customers.

Customer Satisfaction: A customer satisfaction evolution can be quite specific in nature – a specific subset of experience such as a single transaction or attribute- but may also be cumulative, based on all previous experience with services.

According To Turban (2000) “customer services is a series of activities designed to enhance the level of customer satisfaction – that is, the feeling that a service taking time has met the customer expectation and unique.

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Security:

With E- Banking, the customer can carry out all his/her banking and shopping transactions safely and with total confidentiality. The entire system is secured, using the whole gamut of security architecture including firewalls, filtering routers. So the customer is absolutely sure that all transactions are safe and protected.

E-Banking:

A method of banking in which the customer conducts transactions electronically via the internet. 'It's hard to beat e-banking for the 24-hour convenience it offer Internet – literate customers' By: Oxford Dictionaries

Manual Banking:

A manual transaction is any transaction that's completed with the help of our staff- including cheques and transactions in branch, by phone or at the Business Banking Centre. By: Oxford Dictionaries

Objective of Research:

This research study is intended to be a local research study based on the population of the city where there is a higher probability of people aware and knowledge of E- banking and its services. As explained in the sampling plan the scope of the study is restricted to the SBI bank in Shahdol. However, the limit of the sample size is 100 respondents.

Hypothesis 1: E-banking services as a strategy for improving customer satisfactions adopted by selected bank.

Hypothesis 2 : Customer prefers electronic banking to manual banking.

Hypothesis 3 : There is a positive relationship between the younger age group customer and preference of E-banking.

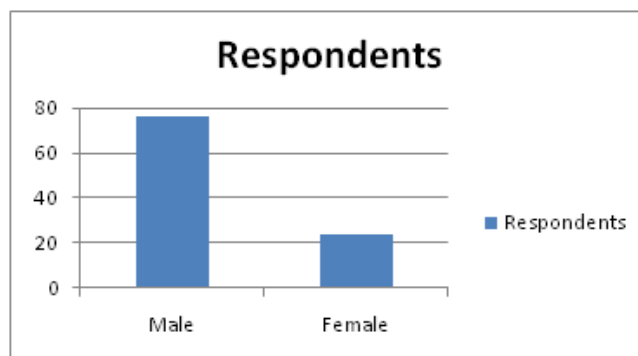
Research Methodology:

The methodology of the study is done through primary data. The primary data have been collected by structured questionnaire. The study considers some hypotheses in order to assess the problems that banks are currently facing regarding e-banking in Shahdol and can thus formulate appropriate strategies that can be implemented and those helped to from the ground from which research is done in order to arrive at the most accurate solutions to the problem under study. The accepted hypothesis is helpful in establishing a common solution. The following hypotheses were determined by background study of e-banking before the research was commenced. Thus such basic knowledge obtained through background research was used to formulate the hypotheses.

Analysis and Interpretation

Chart: 1 usages of SBI E-banking by Gender

Options	Respondent	Percentage
Male	76	76%
Female	24	24%
Total	100	100%



To get an Idea fairly represented by males and females. Among 100 respondents 76% were found to be male and 24% were female.

Chart 2: Frequency and percentage of the different age groups involved in the study.

Table shows age of the respondents

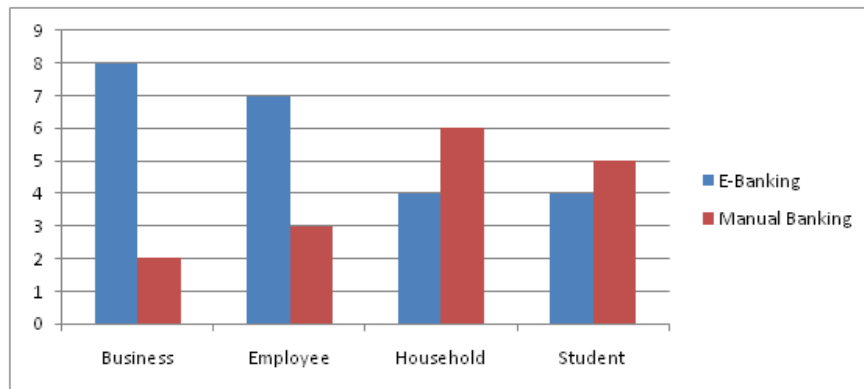
Sr.	Age Group	Frequency	Percent
1	18 to 25 years	21	21%
2	26 to 35 years	43	43%
3	36 to 45 years	18	18%
4	46 to 55 years	10	10%
5	Above 56 years	08	08%
	Total	100	100%

From the above information age group of the respondents, 21% of the respondents are belong 18 to 25 years, 43% of respondents are belong 26 to 35 years, 18% of the respondents are belong 36 to 45 years, 10% of the respondents belong 46 to 55 years and only 08% were belong above 56 years.

It is a general thinking that the younger (18 to 35 years) generation prefer e-banking compare to the older age group. This survey also represent the same believe whether there is a fair representation of both young and old age group as the results are thought to be affected by the age group involved since young people are generally assumed to prefer e-banking in comparison to the older age group.

Chart: 3 Relationship between the preferred type of banking and the different occupation type. It marks distributed out of 10 each.

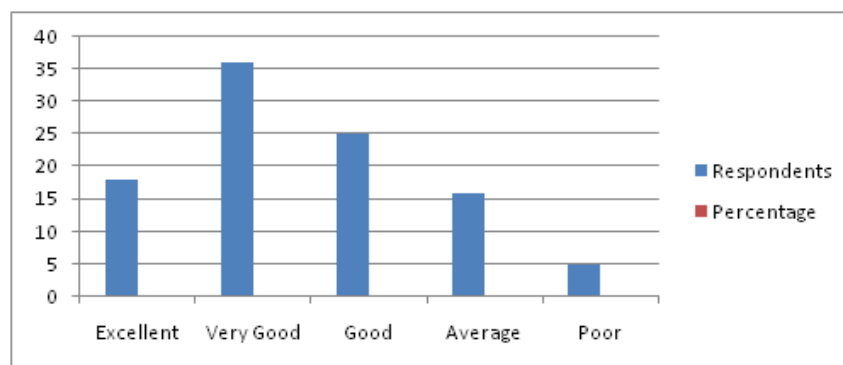
Occupation Type	Preferred type of banking		
	E-Banking	Manual Banking	Ratio of e –banking to manual banking (%)
Business	8	2	80%
Employee	7	3	70%
Household	4	6	04%
Student	5	5	05%
Total	24	16	



To derive statistics to show preference of type of banking according to occupation type. To test hypothesis which suggests preference for e-banking is greatest for Business(8 out of 10) and Employee(7 out of 10) occupation type in the sense that business and Employee people are more likely to prefer e-banking in comparison to the Household and student respondents who are assumed to prefer manual banking over electronic banking. It can be seen that the preference for e-banking over manual banking is greater for business (80%) than for any other type of customers.

Chart: 4 Response use of after services

Particulars	Respondents	Percentage
Excellent	18	18%
Very Good	36	36%
Good	25	25%
Average	16	16%
Poor	5	05%
Total	100	100%



From the above information response use of after services E-banking of SBI bank by respondents, 18% of the respondents prefer excellent, 36% of respondents prefer very good, 25% of the respondents prefer good, 16% of the respondents prefer average and only 05% were prefer poor.

Chart: 5 Security of transaction

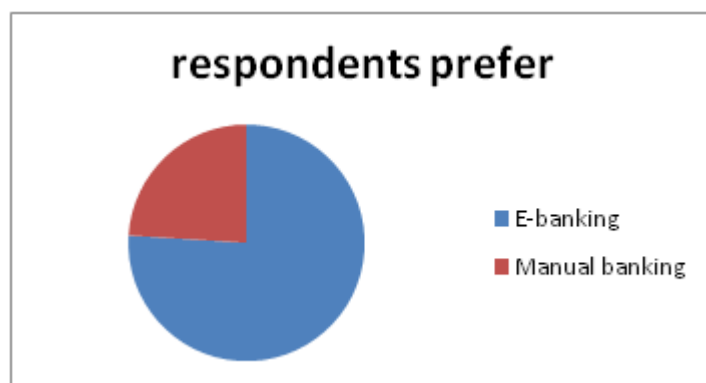
	Respondents	Percentage
Highly satisfy	31	31%
satisfy	63	63%
Dissatisfy	06	6%
Total	100	100%



From the above information on security of transaction E-banking of SBI bank by respondents, 31% of the respondents prefer highly satisfy, 63% of respondents prefer satisfy and only 06% were not dissatisfy.

Chart: 6 Customer prefers electronic banking to manual banking.

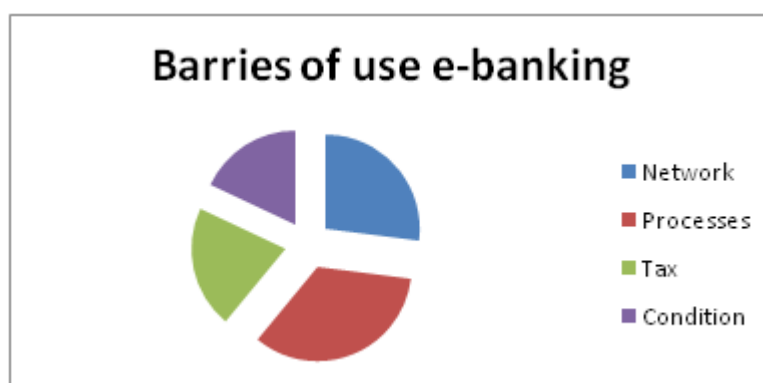
Function	Respondents	percentage
E-banking	76	76%
Manual banking	24	24%
Total	100	100%



From the above information on Customer prefers electronic banking to manual banking of SBI bank by respondents, 76% of the respondents prefer e-banking and only 24% were prefer manual banking.

Chart: 7 Barriers of uses e-banking

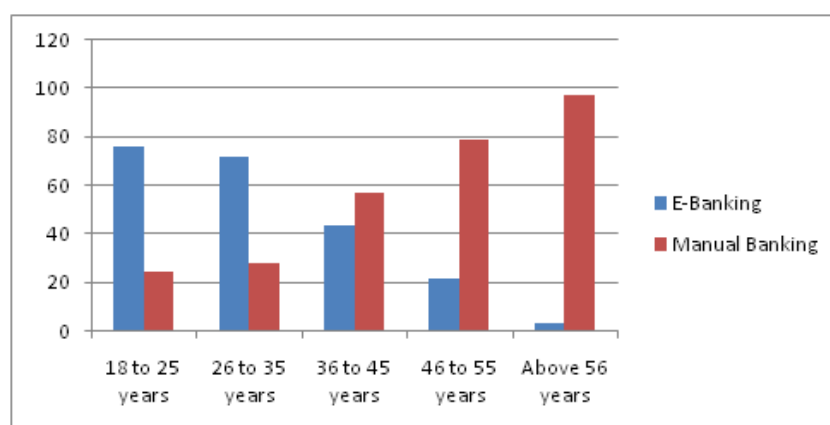
Barrier	Respondents	Percentage
Network	27	27%
Processes	34	34%
Tax	21	21%
Condition	18	18%



From the above information response use of after services E-banking of SBI bank by respondents, 27% of the respondents faced Network barrier, 34% of respondents faced processes barrier ,21%of the respondents faced tax barrier,18% were faced condition barrier.

Chart: 8 uses of e-banking & manual banking by age group

Age Group	E-Banking	Manual Banking
18 to 25 years	76	24
26 to 35 years	72	28
36 to 45 years	43	57
46 to 55 years	21	79
Above 56 years	3	97



To derive statistics to show preference of e-banking is better compare to manual banking. The young people (18 to 35 years) are more likely to

prefer e-banking. It can be seen that the preference for e-banking over manual banking but after age group is also prefer manual banking.

Testing of the Hypotheses:

Hypothesis 1: E-banking services as a strategy for improving customer satisfactions adopted by selected bank.

Testing of this hypothesis requires focus on all the e-banking channels discussed in this research as customers have different knowledge uses of e-banking services. Thus, the results of the testing of this hypothesis shown that indeed improving customer satisfactions adopted by selected bank thus, the hypothesis is held **true and accepted**.

Hypothesis 2 : Customer prefers electronic banking to manual banking.

This is a simple hypothesis to be tested which can be analysed though the results obtained by the gain of objective9 as illustrated by chart 6and table6. The results give a clear-cut indication that e-banking is preferred to manual banking (as 76%prefere-banking). This may be attributed to the fact that e-banking overall has better benefits, and benefits that are more significant to most customers than manual banking. Also the qualitative side of the findings shows that customers prefer e-banking to manual banking due to its very valuable benefits such as convenience, efficiency and time –saving. Thus, the results of the testing of this hypothesis shown that indeed customers do prefer e-banking to manual banking and thus, the hypothesis is held **true and accepted**.

Hypothesis 3 : There is a positive relationship between the younger age group customer and preference of E-banking.

Before attempting to test this hypothesis attention should be paid to table 7 which show the presence of banking according to age group as well as the percentage of respondents that prefer e-banking in each age group. The results show a gradual but steady decline in the percentage preference of e-banking as the age group increases. This means that the percentage preference for b-banking for the 18 to 25 years age group is greater than the percentage preference for e-banking for the above 56 years age group. This makes it quite clear that yes there is indeed a definite relationship between age group and preference of type of banking. This relationship is positive as it is observed that the younger the age groups the greater their preference for e-banking. Thus, the hypothesis is **accepted**.

Limitations of study: In every research undertaken there are inherent limitations that cannot be avoided. Customer Information is not easy to obtain.

- It could cover a definite range of customer and area.
- Also, the study was taken on convenience and quota sampling, as the total number of active customers is unknown at those locations.
- Certain questions were not answered with justifications.

Suggestion:

- From the above findings it was found that e-banking services are

increasing day by day. That is not much known to the customers; therefore the bank management at shahdol should take efforts to make awareness among the young age about online facilities.

- While researching the customers about suggestion they want information about uses. Majority of the customer will compare to other bank (Security, processing, timing and chargers).
- Most of the customers felt that taking of e-banking services.

Recommendations:

1. The State Bank of India promote e-banking to reduce the paper work to save the resources. Thus it is suggested that instead of using e-banking to issue services and SMS system and e-mail can be send the customers.
2. The banks have to encourage and educate the customers to use e-banking which will help the bankers to save energy, money and time. At the same time it will help the banking sector to go for paperless work.

Conclusion:

E-Banking is gaining popularity very short duration and it is very essential for younger age customers. Use of e-banking is very beneficial to customers as it saves lots of harassment, time and cost incurred on the coordination for banking transaction.

From the above analysis, I conclude that awareness of computers, ability of Internet and use of e-banking among SBI account holder is high as well as use of e-banking than manual banking.

This will help SBI bank go to a step forward to improve their services reduce taxes and thus gain competitive advantage by retaining and attracting their customers than others. Thus also increasing customer of e-banking.

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A study of Stress on Sex Differences and Coping Strategies among College Students

*** Md. Fakhra Shayan**

Abstract- *In the current study of stress perception and coping among college students, we expected to find the following sex differences: (1) women would report an overall greater stress level than men, (2) women would report greater stress for familial relationships, social relationships and daily hassles than men, (3) women would report greater overall use of self-help, approach and accommodation coping strategies, and (4) women would report greater use of self-help, approach and accommodation in response to the specific stressors of familial relationships, social relationship and daily hassle stress.*

Key Words- Stress, Sex differences, coping strategies

Introduction: College has been found to be stressful for many young adults (Pierceall and Keim 2007). College students' reports of being "frequently overwhelmed" increased from 16% in 1985 to 27% in 2002 (Sax 1997, 2003). Past studies also reported that 75% to 80% of college students are moderately stressed and 10% to 12% are severely stressed (Abouserie 1994; Pierceall and Keim 2007). During a typical college semester, high levels of stress have been reported for 52% of college students (Hudd et al. 2000). Clearly, stress among college students has been prevalent and in some cases severe.

It has been hypothesized that emerging adulthood, the transition from adolescence into adulthood, increased college students' vulnerability to stress (Towbes and Cohen 1996). The goals of emerging adulthood were to explore and establish identity through salient (for example, friendships and academic), and emerging (for example, occupational and romantic) developmental tasks (Arnett 2000; Roisman et al. 2004). The transition to college from high school challenged young adults to live independently, handle finances, maintain academic standards and integrity, and adjust to a new social life. It also provided an opportunity to modify existing roles (for example, son or daughter) and to adopt new roles (for example, college student). During this transitional process, college students received positive and negative feedback from their choices and modified or abandoned their goals. At the end of this transition, college students had established a foundation for future life goals (Salmela-Aro et al. 2007)

Growth and change were positive and necessary in the transition from

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dependent adolescent to independent young adult. However, growth and change were often accompanied by the experience of stress. The college students' appraisal of growth and change (for example, threat to well-being) and their response to the growth and change (for example, to take action) interact and result in a stress reaction (Romano 1992). Thus, a greater understanding of college students' stress reactions would be obtained through identifying the events they found to be stressful, and identifying the coping methods they used to manage their stress. Past research found that collegiate stressors included: academics, social relationships, finances, daily hassles (for example, parking and being late) and familial relationships (Abouserie 1994; Blankstein et al. 1991; Crespi and Becker 1999; Frazier and Schauben 1994; Larson 2006; Printz et al. 1999; Ross et al. 1999). Within each domain conflict, insufficient resources, time demands, and new responsibilities had characterized stress.

Previous research has found that college stress levels were often associated with cognitive deficits (for example, attention and concentration difficulties), illness, increased rates of depression and anxiety, and decreased life satisfaction (Bailey and Miller 1998; Chang 2001; Dyson and Renk 2006; Edwards et al. 2001; Lumley and Provenzano 2003; Pritchard et al. 2007). Poor health behaviours were also linked with high levels of collegiate stress. Hudd et al. (2000) found that college students who reported higher levels of stress also consumed a greater amount of "junk food," were less likely to exercise, and less likely to obtain adequate amounts of sleep. Academic performance was also found to be impaired for students who reported high levels of stress (Lumley and Provenzano 2003; Struthers et al. 2000). Thus, physical, psychological, behavioural, and academic difficulties were the cost of stress for college students.

It was posited that coping strategies might decrease the effect of stress on wellbeing (Lazarus and Folkman 1984). Coping strategies have often been classified into two broad categories: problem and emotion focused strategies. Problem-focused strategies employed behavioural activities, such as action and planning, while emotion-focused strategies involved expressing emotion and altering expectations. College students' use of problem-solving strategies was associated with positive outcomes, such as better health and reduced negative affect (Dunkley et al. 2000; Sasaki and Yamasaki 2007). While college students' use of emotion-focused strategies, particularly the use of avoidance strategies was associated with negative outcomes such as poorer health and increased negative affect (Pritchard et al. 2007). However, some emotion-focused strategies such as acceptance and positive reframing have been associated with increased well-being (Scheier et al. 1994). Although a definitive conclusion has not been reached, in general, college students' coping strategies that use action, acceptance, and positive reframing in response to stress were found to be adaptive, while coping strategies that use avoidance

and emotional expression in response to stress were found to be maladaptive.

Purpose:

The goals of the present study are the following: (1) to identify the sources of stress and the coping styles of undergraduate students, and (2) to investigate the relationship between specific stressors, sex, and coping strategies. The current study seeks to expand on the past research of Zuckerman and Gagne (2003) and to investigate the relationship between specific stressors, coping strategies, and sex through the use of the 5-factor revised COPE model. The 5-factor revised COPE model is based on a revised form of the COPE inventory (Carver et al. 1989). The five coping responses are self-help, accommodation, approach, avoidance, and self-punishment. The goals of the coping responses are to: (1) self-help by sustaining emotional well-being, (2) approach stress using problem-solving strategies, (3) accommodate stress through acceptance and reframing negative outcomes, (4) avoid stress through denial and blaming others, and (5) self-punish through self-focused rumination and self-blame. Zuckerman and Gagne (2003) found that self-help, approach, and accommodation were associated with greater positive outcomes such as beliefs in realistic control and mastery goals for academic performance. In contrast, college students' avoidance and self-punishment coping strategies were associated with greater negative outcomes such as self-handicapping and depression. Thus, self-help, approach, and accommodation were identified as adaptive coping responses, while avoidance and self-punishment were identified as maladaptive coping strategies. Zuckerman and Gagne (2003) also found that college women were more likely to use the adaptive strategies of self-help, approach, and accommodation in responding to stress than college men.

Hypotheses:

In the current study of stress perception and coping among college students, we expected to find the following sex differences: (1) women would report an overall greater stress level than men, (2) women would report greater stress for familial relationships, social relationships and daily hassles than men, (3) women would report greater overall use of self-help, approach and accommodation coping strategies, and (4) women would report greater use of self-help, approach and accommodation in response to the specific stressors of familial relationships, social relationship and daily hassle stress.

Methodology:

Sample:

Tools: The sample consisted of 166 college students (70 men and 96 women) has taken from J.P. University, Chapra- Saran. In response to questions about their employment status, the majority of students reported that they did not have to be employed in order to afford attending the university (67%), however, many students still reported working at least 20 hr/week (50%). The majority of students also reported living on campus (72%). This sample reflected the

larger university community of students in terms of race, living on campus, affordability of attending the university, and number of work hours per week.

Tools:

Revised COPE Inventory The 40-item revised Cope inventory (Zuckerman and Gagne 2003) was used to measure the following five coping responses to stress: self-help (for example, I try to get emotional support from family and friends), accommodation (for example, I accept the reality of the fact it happened), approach (for example, I do what has to be done, one step at a time), avoidance (for example, I pretend that it has not really happened), and self-punishment (for example, I punish myself). Students were instructed to indicate the extent to which they used a particular coping strategy. They used a five point Likert scale (anchored by 5 = “always use this coping strategy” and 1 = “never use this coping strategy”) to respond to questions about coping styles. In the current study, the five coping responses have good internal reliability as measured by Cronbach’s alpha ranging from .78 to .86.

Student Stress Assessment Students completed a 37 item assessment that identified five sources of stress. The five stress categories were academics (measured by 11 items), familial relationships (measured by 7 items), finances (measured by 4 items), daily hassles (measured by 8 items) and social relationships (measured by 7 items). Students were instructed to indicate the extent to which they experience stress in relation to a specific stressor. They used a five point Likert scale (anchored by 5 = “extremely stressful” and 1 = “not stressful”) to respond to questions about stress. See Table 1 for sample items. The individual items for the Student Stress Assessment test were based on: (1) a review of the collegiate stress literature and (2) sources of student stress identified by the researchers. The Student Stress Assessment test included items from the Student Stress Scale (Insel and Roth 1985), the Life Experience Survey (Sarason et al. 1978), and the Student Stress Survey (Ross et al. 1999). In the current study, the five stress categories have adequate internal reliability as measured by Cronbach’s alpha ranging from .57 to .70.

Employment Status and Demographics Students completed the following questions in relation to employment: (1) whether they were employed, (2) the number of hours they were employed per week, and (3) whether they had to be employed in order to afford to attend the university. The students also completed questions about class standing, housing (on-campus or off-campus) and standard demographic questions about sex and race.

Results:

We conducted a Multivariate Analysis of Variance (MANOVA) to examine whether college women and men differed in their overall stress level and in their reported stress levels for the following five stressors: academics, familial relationships, finances, daily hassles and social relationships. Sex was the independent variable and academic, familial relationship, finance, daily hassle, and social relationship stressors were the dependent variables.

The results of MANOVA showed significant sex differences in overall stress levels ($F(1, 164)=8.87$, $p=.003$, $\eta^2=.05$; Women $M= 2.72$, $SD=.68$, Men $M=2.38$, $SD=.79$) and sex differences in stress levels for specific stressors (Wilks $\Lambda=.93$, $F(4, 161)=2.91$, $p=.023$, partial $\eta^2=.07$).

Table-1 Sample items from the assessment of student stress

Stressor	Sample Item
Academics	Working on final papers or assignments Getting a bad grade on an exam Difficulty choosing a major
Familial relationships	Parents getting a divorce Illness of a family member Getting into an argument with a family member
Finances	Having to pay bills Financial problems Overspending
Daily hassles	Being stuck in traffic Waking up late Not being able to find parking
Social relationships	Breaking up with a girlfriend or boyfriend Difficulties with roommates Dealing with rude people

We conducted an Analysis of Variance (ANOVA) test for each stressor as a follow-up test to the MANOVA. The results of the ANOVAs showed that college women reported greater stress for familial relationships ($F(1, 164)=5.31$, $p=.022$, $\eta^2=.03$; Women $M=2.50$, $SD=.87$, Men $M=2.17$, $SD=.97$), finances ($F(1, 164)=5.30$, $p=.022$, $\eta^2=.03$; Women $M=2.66$, $SD=1.41$, Men $M=2.15$, $SD=1.40$), daily hassles ($F(1, 164)=7.01$, $p=.009$, $\eta^2=.04$; Women $M=2.98$, $SD=.78$, Men $M=2.64$, $SD=.89$), and social relationships ($F(1, 164)=8.54$, $p=.004$, $\eta^2=.05$; Women $M=2.97$, $SD=.98$, Men $M=2.53$, $SD=.91$) than college men. No significant sex differences were found for academic stress.

We conducted a Multivariate Analysis of Variance (MANOVA) to examine whether college women and men differed in their use of the following five stress coping responses: self-help, accommodation, approach, avoidance, and self-punishment. Sex was the independent variable and self-help, accommodation, approach, avoidance, and self-punishment were the dependent variables. The results of MANOVA showed overall sex differences in the use of coping responses

The results of MANOVA showed overall sex differences in the use of coping responses (Wilks $\Lambda=.91$, $F(1, 164)=15.20$, $p=.000$, partial $\eta^2=.09$; Women $M=3.22$, $SD=.36$, Men $M=3.00$, $SD=.35$) and significant sex differences in specific coping responses to stress (Wilks $\Lambda=.85$, $F(4, 161)=6.97$, $p=.000$, partial $\eta^2=.15$)

An ANOVA test for each stressor was conducted as a follow-up test to the MANOVA. The results of the ANOVAs showed that college women reported greater use of self-help ($F(1, 164)=21.24$, $p=.000$, $\eta^2=.12$; Women $M=3.62$, $SD=.52$, Men $M=3.21$, $SD=.59$), approach ($F(1, 164)=2.99$, $p=.086$ marginally significant, $\eta^2=.02$; Women $M=3.42$, $SD=.52$, Men $M=3.28$, $SD=.49$) and self-punishment ($F(1, 164)=10.17$, $p=.002$, $\eta^2=.06$; Women $M=3.37$, $SD=.87$, Men $M=2.96$, $SD=.72$) than college men.

No significant sex differences were found for accommodation and avoidance

coping responses to stress.

To examine the relationships among college students' experience of stress for a particular stressor (academics, familial relationships, finances, daily hassles, and social relationships) and the type of coping responses used (self-help, accommodation, approach, avoidance, and self-punishment), correlational analysis were conducted. These correlations are found in Table 2. For college women, a correlation was found between their level of daily hassles and their use of avoidance and self punishment as a coping response. No other significant relationships were found between stressors and type of coping responses used by college women.

For college men, the following significant positive correlations were found between stressors and coping responses: (1) academic stressors and the use of avoidance and self-punishment coping responses, (2) family stressors and the use of self-help, avoidance, and self-punishment coping responses, (3) finances and the use of accommodation and avoidance coping responses, (4) daily hassles stressors and the use of avoidance and self-punishment coping responses, and (5) social relationships stressors and the use of self-help, self-punishment and avoidance coping responses. No other significant relationships were found between stressor and type of coping response used by college men.

A Fisher's z' transformation (Cohen and Cohen 1983) was computed to test whether sex differences existed for the separate significant correlations found for men and women between stressors and types of coping. The following significant sex differences were found between stressors and coping responses: (1) family stressors and the use of self-punishment ($z=1.99$, $p=.03$), (2) financial stressors and the use of accommodation ($z=2.66$, $p=.01$), and (3) social stressors and the use of self-help ($z=2.43$, $p=.02$). As seen in Table-2, the correlations among the five R-COPE scales (self-help, accommodation, approach, avoidance, and self-punishment) form two distinct clusters:

Table-2
Correlations among college students' stressors and types of coping

Variables	1	2	3	4	5	6	7	8	9	10
Academic	—	.56**	.40**	.50**	.28**	-.10	-.01	-.06	.17	.20
Family	.58**	—	.19	.26*	.44**	-.05	.11	-.09	.05	.04
Financial	.47*	.44**	—	.30**	.14	-.13	-.05	.00	.05	-.05
Daily hassles	.69**	.61**	.54**	—	.25*	-.02	.17	.07	.26	.24*
Social	.50**	.56**	.49**	.47**	—	-.12	.03	-.15	.17	.05
Accommodation	-.08	.10	.29*	.07	.14	—	.41**	.50**	-.03	.08
Self-Help	.18	.31**	.23	.18	.34**	.57**	—	.54**	-.06	.02
Approach	.12	.16	-.02	.13	.01	.44**	.53**	—	-.04	.20
Avoidance	.26*	.31**	.26*	.33**	.28*	.04	.06	-.11	—	.50**
Self-punishment	.25*	.34**	.05	.35*	.25*	.02	.22	.25*	.45**	—

Correlations for college women participants are above the diagonal,

whereas correlations for college men participants are below the diagonal * $p < .05$, ** $p < .01$ one consists of avoidance and self-punishment (maladaptive) and the other consists of approach, accommodation, and self-help (adaptive). The maladaptive and adaptive coping distinction is consistent with the Zuckerman and Gagne's (2003) findings.

For college women, a correlation was found between daily hassles and class standing ($r(96) = .23$, $p = .025$) and a correlation was found between being employed to afford school and reporting financial stress ($r(96) = .42$, $p = .001$). For college men being employed to afford school was correlated with financial stress ($r(70) = .38$, $p = .005$), daily hassle stress ($r(70) = .34$, $p = .004$), and the use of accommodation ($r(70) = .28$, $p = .022$) as a coping response. For college men, a correlation was found between being non-Caucasian and reporting financial stress ($r(70) = .29$, $p = .014$).

Discussion and conclusion:

The results of the current study provide some support for sex differences in ratings of stressors and coping responses for college students. Overall, the findings of the study provide mixed support for the hypotheses. As hypothesized, women college students in comparison to men college students reported: (1) higher overall levels of stress, (2) greater stress for familial relationships, social relationships and daily hassles, and (3) greater overall use of self-help and approach to cope with stress. Contrary to the hypothesized relationships between stress and sex, the following was found (1) college women reported greater stress for finances than college men, and (2) college women in comparison to college men reported the use of self-punishment as an overall coping response. Thus, the current study findings are consistent with past studies and provide support for women college students' reports of greater overall stress and greater use of emotion focused strategies (self-help and self punishment) to cope with stress than college men (Eaton and Bradely 2008; Ptacek et al. 1994; Stanton et al. 2000).

Although college women reported the overall use of emotion-focused coping for stress, college men reported using emotion-focused coping for a greater number of specific stressors. As for sex differences, college men reported the use self-punishment, a maladaptive strategy, to cope with family stress. College men also reported the use of the following adaptive strategies to cope with stress: (1) accommodation to cope with financial stress, and (2) self-help to cope with social stress. As for sex similarities, both college women and men reported using the maladaptive strategies of avoidance and self-punishment to cope with daily hassles. Thus, for specific stressors college men were found to use both maladaptive and adaptive emotion-focused coping, while college women were found to use only maladaptive emotion-focused coping.

The coping responses of men and women college students provided some evidence for the use of problem-focused strategies. College women in

comparison to college men showed a trend for the overall use of approach coping in response to stress. For both women and men college students, problem-focused coping was used less than emotion-focused coping.

Overall the current study extends past findings of Zuckerman and Gagne's (2003) 5-factor revised COPE model in relation to specific stressors. The current study reports a number of results for college men including relationships between specific stressors and coping responses that may have been non-significant in past studies due to collecting data from small samples of men (for example, Dyson and Renk 2006). The 5-factor revised COPE separation of emotion-focused coping into adaptive (for example, self-help) and maladaptive (for example, self-punishment) clusters also offered a clear, concise, and reliable method for assessing coping responses in college men and women.

The following limitations should be considered when interpreting the results of the study. One limitation of the current study was the collection of self-reported data. A consequence of self-reported data may be that college men were more reluctant to report the experience of stress or were less aware of stress than college women. Past research has found that college men have less knowledge about health and illness detection behaviours than college women, thus, college men may be less able to detect stress than college women (Davies et al. 2000; Mansfield et al. 2005). Furthermore, for college men, masculine norms such as independence, invincibility, and power may be a barrier for adequate disclosure of stress levels (Davies et al. 2000). Disclosing a high level of stress may threaten college men's beliefs about their own masculinity.

Another limitation was that the undergraduate sample was fairly homogeneous in terms of ethnicity, and affluence (67% of the sample reporting not having to work to afford school). Therefore, the findings of the current study may not generalize to a more diverse college student population. The current study, however, does have important implications regarding stress and sex that applies to the larger university population that is predominately Caucasian and affluent (Median income \$72,000; Higher Education Research Institute 2006; US National Center for Education Statistics 2005).

A few past studies found a developmental trend for undergraduate stress (for example, Misra et al. 2000). Specifically, freshman and sophomores reported greater stress than juniors and seniors. Most studies of college student stress use cross-sectional data or follow college students for a short period of time (Zuckerman and Gagne 2003). Thus, necessary directions for future research are longitudinal studies that would follow the development of coping skills and perceptions of stress over the 4 years of undergraduate education.

Clearly the current study showed that emotion-focused coping strategies for college women and men dominated over problem-solving strategies. Past research suggests that college students' ability to communicate effectively

and regulate emotions contributed to maintaining relationships and reducing stress (Skowron et al. 2004). Positive exchange in family relationships, such as social support and opportunities for autonomy were also found to increase college students' ability to handle stress (Kenny and Rice 1995). Thus, creating opportunities for improving college students emotional processing and regulation of emotion should lead to reduced stress and greater use of adaptive coping responses.

A potential application of the current research is to design a stress workshop that builds upon the college students' emotion-focused strengths such as emotional support seeking and maintaining optimism. The workshop would focus on teaching effective skills of supportive communication including, emotional processing, emotional regulation, reflective communication, and problem solving to both college students and parents. Supportive communication engenders behaviours such as the validation of emotional experience and positive regard, which in turn, facilitates the processing of negative cognitions and emotions (Burlison and Goldsmith 1998). It is the processing of emotions and cognitions rather than avoidance that leads to a more functional appraisal of stressors and the experience of less stress.

We propose that improving supportive communication between college student and parent through participation in a workshop would increase college students' perception of the availability of social support resources. A number of studies have found that social support benefits college student's transition and adjustment to college (for example, Friedlander et al. 2007; Misra et al. 2000). However, freshmen often have fewer friends than upperclassmen and they also report inadequate social support and greater difficult coping with stress than upperclassmen (Dwyer and Cummings 2001). Thus, we suggest that the first stress workshop should be conducted during freshman orientation and follow-up workshops could be conducted online.

Parents are included in the stress workshop because they are a primary and continuous source of social support for college students. Furthermore, parental participation in the workshop is also supported by: (1) Jo Lohman and Jarvis (2000) finding that adolescents and parents who possess accurate perceptions about each other's stressors and coping skills are more likely to use adaptive coping mechanisms in response to stress, and (2) Lopez and Brennan's (2000) finding that that quality of family relationships plays an important role in successful emotional adjustment for young adults.

Overall, the current study provides support for sex differences and similarities in college students' ability to cope with stress. Given that the college years may be a critical period for developing lifelong coping skills for handling stress and the consistent robust relationship between stress and decreased physical, psychological, social and academic well-being it is imperative that we increase our efforts to teach stress management skills. A

stress workshop that capitalizes on college students existing strengths of emotion-focused coping responses and targets both college students and parents to increase adaptive coping skills should result in fewer physical problems, better psychological adjustment, and academic success for college students.

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Attitudes of Muslims towards Female Education In Relation to Age and Gender

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Abstract- 200 Muslims of different age groups residing in rural and urban areas of Saran district area of Bihar state have been chosen for the purpose of the study. Two hypotheses were formulated for empirical verification. Both hypotheses were retained.

Key Words- Age, Gender, Attitude

Introduction: In India, the model and process to empower women has started recently as compared to other western countries. (Chadha, 2017). The situation of women in India has significantly transformed in modern Indian society.

In the present-day period of globalization, education has become the chief instrument of social transformation which works as a contrivance augmenting the course of social, economic, and cultural progress of societies. It leads to individual free will and liberation, which vintages momentous collective development gains and makes an individual self-reliant. Consequently, gender parity in education is not just a women's concern, it is a development subject. Nevertheless, disparity continues between women and men in respect to education in general and for Muslim women specifically.

It is important to know the state of affairs which could proscribe or embolden Muslim girls to go to school and to discover how the tutelage is observed by male affiliates of the community as they are involved in decision making of girl children's education. It has been discovered that education is useful for girls as it will aid a girl in conducting domestic tasks. The common answer of about 70% respondents was that an educated girl is well able to look after the house. She also tends to nurture her children in a far better manner. These results evidently reveal the strong male-controlled configuration of the Muslim community and back up the study of Biswal (2006) who inscribes that women are mothers by nature and a woman's place is her home where the epitome of womanhood is connected to patriarchal principles allocating a subordinate place to women. Compassion for spouse, kids and other members of the family is charged on women as a 'first duty.' There are numerous socio-structural and institutional factors like safety, individuality and parity, and the correlation of these dimensions at the centre of the socio-economic and political processes that the community is open to on an everyday

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basis, which are accountable for marginalization of Muslim girl child from education. The financial limitations have a main part to play in terms of choices with respect to educating girls. Ever since women's roles are restricted in the community to child nurturing and the attention is on matrimony, women are not expected to add to earnings. Hence, expenditure on education seems like a poor venture. There are additional factors too which are accountable for elimination of girl child from education like attitude towards education, family background, occupational structures of families, lack of cognizance about the significance of the education, insecurity of girl children, lack of parental assistance to the school, helping hand to their parents, and lack of good Muslim leadership at grass root level in the field of education. In the earlier few decades, a number of efforts have been made to fetch transformative modifications in education, specifically for Muslim girls. But there is a necessity to work on this subject more vigorously and with good intents. Muslim girls should obtain like education as Muslim boys and for this, Muslim frontrunners, especially Ulema, should come forward for upgrading of education of Muslim girls for the reason that without educating girl, the community cannot evolve.

In spite of virtually tripling in the decade ending 2010, the rate of Muslim admission in higher education which increased from 5.2% to 13.8%, still lagged the national figure of 23.6% and that of other backward classes (22.1%) and scheduled castes (18.5%). Scheduled tribes dawdled Muslims by 0.5%.

In higher education, Muslims (13.8%) trailed all the major religions in gross enrolment rate in 2010 which was 13.8% as compared to Hindus (24.2%), Christians (36.9%) and others (Jains, Sikhs, etc) (28%).

Women must have equivalent roles to play for the development of the society but gender inequality is still a noticeable phenomenon. Few problems have appealed greater interest among academicians and activists in India than those regarding women and Islam, but much of this interest is caught up in fallacies that generally leave Muslim women invisible. It is a well known statement that the change is the law of nature. So is the nature of human being. In the same way, on the subject of change, the Muslim women cannot be overlooked. It is generally believed that Indian Muslim has failed to survive the change that is taking place in Indian society at large (Sharma, 2015).

Studies on Muslim women have in recent years, but remain scant. The few existing studies seldom look at the interaction of religion and gender on Muslim women, nor do they probe into the past impacts shaping Muslim women's lives.

Objectives:

1. To investigate intragroup variations on attitudes of Muslims towards female education.

Hypothesis:

1. There is a significant difference between older and younger Muslims on attitude towards female education.

2. There is a significant difference between male and female Muslims on attitude towards female education.

Sample:

200 Muslims of different age groups residing in rural and urban areas of Saran district area of Bihar state have been chosen for the purpose of the study. The age of the subjects ranges from 18 to 60 years.

Tools:

PDS: A personal Data sheet was prepared by the researcher himself to collect relevant information with regard to education, sex, region (Urban-Rural), caste and size of the family.

Attitude scale for female education

This scale was developed by Dr. R.D.Rai and Dr. Feroz Ahmad (2017) for measuring attitude towards female education. Hindi version of an attitude scale has been used to measure attitude towards female education.

Result:

Attitude and Age:

It was hypothesized that There will be significant difference between older and younger Muslims on attitude towards female education. ASFEE was administered on both groups which were younger and older group and then obtained scores were collected and treated. After calculating of Mean, SD and SE score t test was applied and t calculated and find out significance of difference between means.

Table No 1

Variable	Group	N	M	SD	SE	t	df	p
Attitude towards Female education	Older	100	112.42	4.56	.456	15.85	98	.01
	Younger	100	102.75	4.12	.412			

From the table no one it is apparent that younger group of respondents showed positive and favourable attitude towards female education. Older group of respondents showed negative and unfavourable attitude towards female education. The mean value of younger respondents was 112.42 and older group of respondents was 102.75.

Younger group of respondents showed attitudinal superiority on older group of respondents in respect of female education.

It has been found out that there is a significant difference between older and younger Muslims on attitude towards female education. A young Muslim is positive towards education irrespective of gender. Older generation people are stereotyped and gender biased. The finding might be interpreted in terms of exposure, more knowledge, extroversion, open-mindedness, confidence and self-concept of youth. Thus the first hypothesis of the present study is accepted.

Attitude and Gender:

It was hypothesized that there will be significant difference between male and female Muslims on attitude towards female education. ASFEE was

administered on both groups which were Male and Female group and then obtained scores were collected and treated. After calculating of Mean, SD and SE score t test was applied and t calculated and find out significance of difference between means.

Table No 2

Variable	Group	N	M	SD	SE	t	df	p
Attitude towards Female education	Male	100	90.34	3.98	.398	10.71	98	.01
	Female	100	96.45	4.12	.412			

From the table no two it is apparent that Female group of respondents showed positive and favourable attitude towards female education. Male group of respondents showed negative and unfavourable attitude towards female education. The mean value of male respondents was 90.34 and female group of respondents was 96.45.

Female group of respondents showed attitudinal superiority on male group of respondents in respect of female education.

It was hypothesized that there is a difference between male and female Muslims on attitude towards female education. An attempt was made to find the same. Thus, the second hypothesis was confirmed. Finding might be interpreted in terms of breaking the ice, confidence level and career orientation, a drive to surpass all doubts, excellence, ambitious nature and self-concept.

Conclusions:

After data collection and data analysis the findings of my research are that there is a significant difference between older and younger Muslims on attitude towards female education. Both showed differing attitude on education of women in terms of exposure, more knowledge, extroversion, open-mindedness, confidence and self-concept of youth. The hypothesis no one is accepted with respect to attitude of Muslims towards female education and age.

There is a difference between male and female Muslims on attitude towards female education in terms of breaking the ice, confidence level, career orientation, drive to surpass all doubts, excellence, ambitious nature and self-concept in case of female respondents. The hypothesis no two is confirmed in context of attitude of Muslims towards female education and gender differences.

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Problems and Awareness of Reproductive Health among Adolescent Girls

*** Namita Kishore**

Abstract- *The sample for the present study consisted of 100 adolescent girls between the age group of 12 - 18 years. The present study was carried out with the aim to assess the awareness level of adolescent girls towards reproductive health. The results revealed that on the whole majority of the respondents from both ecological settings, urban and rural, were unaware of the physiological rationale of menstrual process. Their understanding for reproductive health reflected a variety of misconceptions or ignorance, incomplete knowledge, unscientific notions and blindfold faith in cultural taboos, myths and social customs.*

Key Words- Adolescence, Reproductive health, awareness

Introduction: Adolescence is a significant period of human growth and maturation. Adolescence is the most vulnerable stage from the point of view of health. In a country like India, adolescent girls face serious health problems due to socio-economic, environmental conditions, nutrition and gender discrimination. A vast majority of girls in India are suffering from either general or specific morbidities (Balasubramaniam 2005). Diet and health are synonymous with the well-being of an individual. In absence of proper and adequate nutrition, a person can develop several developmental malformations. Many research studies (Bahl et al. 1994; Jain 1999 and Babitha (2003) have documented that malnutrition affects body growth and development, especially during the crucial period of adolescence. Under-nutrition among adolescent girls can severely limit their growth spurts (Kanani et al. 1997; Brabin and Brabin 1992). Apart from low hemoglobin count, there are several other indicators of health which vary with nutritional status. The age of onset of menarche has also been found to vary according to nutritional status. As the nutritional status improves, the age at menarche is lowered. The relationship between nutritional status and age of menarche has been established in many studies Kamla-Raj 2011 Studied Tribes Tribals, 9(2): 133-138 (2011) (Abioye et al. 1999; Singh et al. 2001; Acharya et al. 2006). One of the most important factors which affect the health of adolescent is the environmental conditions. Recurrence of diseases due to poor environmental conditions especially in rural and tribal communities affects the various indicators of growth and

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development in adolescents. Many of these problems creep in due to lack of awareness among adolescents regarding the diseases and their prevention. Studies carried under Common Wealth Youth Program, Chandigarh 1997 and by Centre for operations Research and Training (CORT) 1999 and ICRW (2006) have recommended that there is need for providing information to youth so that they are better informed and better adjusted to their changing physical biological and health needs. Adolescence is a crucial period for healthy development in both psychological and physical terms. It is a stage of development transition, i.e. a bridge between childhood and adulthood. It is the stage of development of adult mental process and about adult identity and transition from total socio-economic dependent to relative independent. India has one of the fastest growing youth populations in world and adolescent girls of age 13 to 19 years constitute nearly 66 million. The lives of these girls are characterized by limited education, lack of knowledge pertaining to social as well as health aspects and also limited influence on decisions affecting their lives. During this period, attitudes, beliefs and values tend to settle into a pattern, out of which emerges the shape and directions of one's life style. Thus, awareness is one major factor for development of this group of population because of the fact that these adolescent girls would be the future housewives.

Traditionally, women bear primary responsibility for the well being of their families. Yet they are systematically denied access to the resources they need to fulfill their responsibilities, which includes education, health care services, job training, etc. For young girls in India, poor nutrition, early child bearing and reproductive health complications compound the difficulties of adolescent physical development. Women's reproductive health is largely influenced by their health status during infancy, childhood and adolescence. Compared with boys, the adolescent girls' health, nutrition, education and development are more neglected which has adverse effect on reproductive health. Most girls are not adequately aware of their increased nutritional needs for growth (especially increasing their food intake to meet calorie demands of pubertal growth) resulting in girls that are underweight and of short stature. Adolescent girls face more problems than boys, largely due to socio-cultural factors. They are deprived of adequate health care, good nutrition and opportunity for schooling. A study by Dongre et al. (2006) showed significant improvement in personal hygiene of students and concluded that the school health education program with active involvement of school teacher lead to improvement in personal hygiene in school children and reduction in related morbidities.

Objectives: To find out the knowledge, attitude and practices toward reproductive health among adolescent girls.

To assess the awareness level of reproductive health among adolescent girls.

To understand the reasons for poor knowledge regarding reproductive health among adolescent girls.

Hypothesis:

1. There is relationship between the level of reproductive health awareness and reproductive health related problems.
2. There is relationship between reproductive health knowledge and practice followed by adolescent girls.

Methodology:

The sample for the present study consisted of 100 adolescent girls between the age group of 12 - 18 years. An equal number of subjects were drawn from two ecological setting (Rural n = 50 and Urban n = 50) of Patna district. The sample was chosen from state government schools on the basis of availability. Simple random sampling without replacement which gives an unbiased estimate about the target population was used. Questionnaire comprising of 20 items was formulated in collaboration with specialists in sociology, gynecology and human development. Pilot study was done on a sample of 50 subjects and further the tool was standardized statistically. The questions that were not clear to the subjects were either deleted or modified. The three point scale (in Hindi) included items regarding awareness level of the reproductive health, age at menarche, source of information regarding menarche, reaction towards the onset of menstruation, social taboos and myths during menstruation, problem regarding menarche, pregnancy, contraceptive practices, reproductive hygiene, sexually transmitted diseases like Acquired Immune Defiance Syndrome (AIDS).

Results and Interpretations :

After using interview schedule among adolescent girl data has been collected for analysis. Sample of 100 respondents between the age group of 12 to 18 years has been taken for administration of interview schedule. Interview schedule administered and find master data related to awareness, attitude and health services.

For the analysis of the obtained data one parametric test t' test was employed and obtained results were displayed in different tables and were discussed and interpreted in the high of rationales. The details are given below.

Reproductive Health Awareness and Reproductive Health Related Problems:

Reproductive health awareness and reproductive health related problems were treated as dependent variable in this research work. Both variables are current issues of society due to it increasing rate. Keeping in view the first hypothesis of the present study attempt was made to examine, the relationship between the level of reproductive health awareness and reproductive health related problems.

Table No.1

Group	Variable	N	M	SD	SE	t	df	P
Adolescent girls	Reproductive health awareness	100	12.20	4.45	.45	4.65	98	<.01
	Reproductive health problems	100	16.34	7.78	.78			

The result displayed in above table showed moderate level of awareness of adolescent girls and high level of reproductive health related problems. The mean value of the group of adolescent girls on reproductive health awareness much less in respect of reproductive health related problems. The mean value of the RHA is 12.20 and RHRP is 16.34. The difference between the two means was significant beyond 0.01 levels. Thus the finding supported hypothesis no.1 is mentioned in chapter no-2.

Table No.2

Variable	n	r	df	P
REPRODUCTIVE HEALTH AWAIRNESS AND REPRODUCTIVE HEALTH RELATED PROBLEMS	100	-.69	98	.01

For the analysis of the data pearson r used and found negative correlation between reproductive health awareness and reproductive health related problems.

Finding may be interpreted in terms of lack of sex education, awareness and cultural taboo which promote reproductive health related problems.

Reproductive Health Knowledge and Practices:

Responding to the question on knowledge regarding menstruation process 60 percent urban girls were of the view that it is a natural cyclic process, whereas 56 percent rural girls were of the opinion that it is some kind of disease or a physical problem.

In the present research is to verify the hypothesis no 2 which are related to reproductive health knowledge and practices in adolescent girls. Interview schedule were administered on 100 adolescent girls and collected data regarding RH knowledge and practices. After collective data treatment has been given and put up in below table no 3

Reproductive Health Knowledge and Practices:

Table No.3

Group	Variable	N	M	SD	SE	t	df	P
Adolescent girls	Reproductive health knowledge	100	15.34	7.42	.74	2.98	98	<.01
	Reproductive health practices	100	12.56	5.93	.59			

The result displayed in above table showed average level of knowledge of RH among adolescent girls and moderate level of reproductive health related practices. The mean value of the group of adolescent girls on reproductive health knowledge is much better in respect of reproductive health related practices. The mean value of the RHK is 15.34 and RHRPr is 12.56. The

difference between the two means was significant beyond 0.01

Table No.4

Group	Variable	N	M	SD	SE	t	df	P
Adolescent girls	Reproductive health knowledge	100	15.34	7.42	.74	2.98	98	<.01
	Reproductive health practices	100	12.56	5.93	.59			

For the analysis of the data pearson r used and found correlation between reproductive health knowledge and reproductive health related practices.

Conclusion:

In India, adolescent girls, married and unmarried, lack basic knowledge about reproductive health. The present study was carried out with the aim to assess the awareness level of adolescent girls towards reproductive health. The results revealed that on the whole majority of the respondents from both ecological settings, urban and rural, were unaware of the physiological rationale of menstrual process. Their understanding for reproductive health reflected a variety of misconceptions or ignorance, incomplete knowledge, unscientific notions and blindfold faith in cultural taboos, myths and social customs.

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A Study of Mental Health and Senior Citizen In Terms of Family and Inhabitant

* Sunil Kumar Singh

Abstract- *In this research paper type of family and inhabitation were used as independent variables. Two hypotheses were formed for verification. The main objective of the project is to trace the effect of inhabitation and structure of family on senior citizen in respect of mental health. Mental health inventory was administered for measuring mental health of seniors. Both hypotheses were retained.*

Key Words- Mental health, Senior citizen, Inhabitation

Introduction: India is poised to experience a dramatic rise in its aging population in coming decades. The world's population is undergoing a dramatic shift in age structure, with rapid population aging among its most notable characteristics (Bloom, 2011a). The world's population aged 60 and older is currently 760 million people, representing 11% of total population. By 2050, it is expected that 22% of total population, or 2.0 billion people, will be aged 60 and older. Moreover, the world's proportion of individuals aged 80 or over is projected to more than double from now until 2050, rising from 1.5% to over 4%. With 1.21 billion inhabitants counted in its 2011 census, India is the second most populous country in the world. Currently, the 60+ population accounts for 8% of India's national population, translating into roughly 93 million people. Several forces are driving India's changing age structure, including an upward trend in life expectancy and falling fertility. An Indian born in 1950 could expect to live for 37 years, whereas today India's life expectancy at birth has risen to 65 years; by 2050 it is projected to increase to 74 years. Fertility rates in India have declined sharply, from nearly 6 children per woman in 1950 to 2.6 children per woman in 2010. India has also been experiencing a breakdown of the traditional extended family structure; currently, India's older people are largely cared for privately, but these family networks are coming under stress from a variety of sources (Bloom, Mahal, Rosenberg, and Sevilla, 2010; Pal, 2007). Older Indians also face economic insecurity; 90% of them have no pension. According to official statistics, labor force participation remains high (39%) among those aged 60 and older and is especially high (45%) among the same age group in rural areas (see Registrar General, 2001 and Alam 2004). These high participation rates reflect an

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overwhelming reliance on the agriculture and informal sectors, which account for more than 90% of all employment in India. They also reflect the inadequacy of existing social safety nets for older people (Bloom, Mahal, Rosenberg, and Sevilla, 2010). In addition, more than two-thirds of India's elderly live in rural areas, limiting their access to modern financial institutions and instruments such as banks and insurance schemes. While economic growth has been rapid, basic living conditions for many Indians, especially the aging, are still poor (Pal & Palacios, 2008; Husain & Ghosh, 2011). Older people looking specifically at such indicators as drinking water, sanitation, basic household utilities, health, and food security. These are common markers used in the development literature to assess quality of life (Clark & Ning, 2007; Ahmed et al., 1991). Compounding poor living and environmental conditions are the health and economic concerns of the aging population in India. Thirteen percent of Indians in our sample report living alone which often increases vulnerability to health and economic shocks (Chaudhuri & Kakoli, 2009). Living alone is most common in the southern states of Kerala (17%) and Karnataka (16%) and least common in Rajasthan and Bihar, where there are larger families and more intergenerational residency. Cognitive health is a growing concern among aging populations in developing countries yet remains understudied in India¹⁶ (Jotheeswaran et al., 2008; Prince, 1997). Unlike in studies in the United States and United Kingdom, women in India perform worse than men on measures of cognitive health (Lang, Llewellyn et al., 2008; Langa, Larson, et al., 2008). Study shows that the female disadvantage in cognitive health persists even after controlling for these risk factors. Similar cognitive disparity between men and women has been found in other developing countries (Zunzunegui et al., 2008). Nevertheless, the factors that account for the cognitive shortfall among women deserve further exploration (Lee et al, 2011). In India, urbanization, modernization and globalization have significant impact on economic structure, erosion of societal values and the weakening of joint family systems. The younger generation is searching for new identities and redefined social roles within and outside the family. Like Western countries, the traditional sense of duty and obligation of the younger generation towards their older generation is being eroded. The older generation is caught between the decline in traditional values and the absence of an adequate social security system (Bhat & Dhruvarajan, 2001).

Mental health of older persons is influenced not just by ageing changes in the body and brain; but, by socio-economic and psychological factors (Prakash, 2002). Isolation from the society and a feeling of loneliness and hopelessness are the important agonizing problems of the old age. Many think in terms of "time left to live" rather than time from birth. Moreover, conflicts are likely to arise when the sick, tired mind and body can not cope with psychological, emotional and physical stress. Lack of social interaction caused by loss of physical capabilities (e.g. mobility, hearing, sight, mental functioning,

intelligence, memory), and by retirement from work is most likely to reinforce these feeling and may lead to further social withdrawal and segregation (Lazarus & Weinberg, 1981). For older people, mental health conditions are an important cause of morbidity and mortality. Thus, it is not surprising that with one in five individuals over age 65 are suffering from mental disorders, and the number of older adults with psychiatric disorders is expected to double in the next 30 years (Jeste et al., 1999; Bartels et al., 2003).

Aging is characterized by many changes, particularly in the occupational and financial domain, in physiology, and in health, including psychological and social domains. Such changes influence the well-being of elderly persons and tend to lessen the physical and mental capacity of elderly individuals to cope with the rigors of daily living (Prakash et al., 2007). The ageing of the population is a global phenomenon having economic, social and political repercussions.

Review of Research :

Old age presents its special and unique problems but these have been aggravated due to the unprecedented speed of socioeconomic transformation leading to a number of changes in different aspects of living conditions. The needs and problems of the elderly vary significantly according to their age, socioeconomic status, health, living status and other such background characteristics (Siva Raju, 2002). In traditional Indian society, the informal support systems of family, kinship and community are considered strong enough to provide social security to its members, including older people. Urbanization, industrialization and the ongoing phenomenon of globalization have cast their shadow on traditional values and norms within society. Gradual nuclearization of the joint family, erosion of morality in economy, changes in the value system, migration of youth to urban areas for jobs or work and increasing participation of women in the workforce are important factors responsible for the marginalization of older people in rural India. As a result, the elderly depend on 'money-order economy' and their intimacy with their children is only from a distance (Vijaykumar, 1999). Changing traditional values, mobility of the younger generation, changes in family structure and role of women have contributed to a 'crisis in caring' for the elderly (Prakash, 2004). The investigators came mainly from the disciplines of psychology, sociology, social work and anthropology. The review of these articles shows that all aspects of ageing have not been uniformly researched. The areas covered under the study were: Problems of adjustment and coping; post-retirement life satisfaction; the elderly in the family, care giving, social supports, attitudes, inter-generational interaction, leisure utilization roles, techno-social changes and the family, elder care across subcultures, impact of demographic changes, quality of life and widowhood problems (Ramamurti, 2005).

Objective of the Research Problem:

An exploration and understanding of mental health can help to enhance

understanding and respect for people with poor mental health and assist in improving care and treatment of this population. This study will be sought to understand the factors that influence mental health for people living with dementia in long-term care. With a view to making a scientific and empirical study on the subject of mental health with special reference to India. The main objective of the project is to trace the effect of inhabitation and structure of family on senior citizen in respect of mental health.

Hypothesis and Research Design: The present study will proceed to test at the following hypotheses.

1. The senior citizen of joint family shall be significantly differing from nuclear family in terms of mental health.
2. The senior citizen of urban area shall be significantly differing from rural area in terms of mental health.

Methodology: This methodological section deals with sample, research tools, administration of the tools and data analysis as given below.

(a) **Sample:** The study will be conducted on the sample of the 100 senior citizen having age range from 60 to 70 years. Data will be taken from Patna district.

Test materials:

- (a) Mental Health Inventory developed by
- (b) Personal Data Sheet by researcher

Result: The table1 shows that joint family senior citizen have significantly highest score on the mental health inventory than the nuclear family.

Table.1

Group	N	M	SD	t	P
Senior citizen from joint family	50	105.26	12.34	3.70	(P<.01)
Senior citizen from nuclear family	50	97.45	8.56		

Table.2

Group	N	M	SD	t	P
Senior citizen from urban area	50	113.49	15.14	4.95	(P<.01)
Senior citizen from rural area	50	99.37	13.42		

The table 2 shows that the urban area of senior citizen has significantly higher score on the rural area of respondents.

Discussion & conclusion:

The forgoing result shows the senior citizen of joint family and urban respondent has better mental health than their counterparts. Some earlier studies have also reported similar results. Result may be interpreted in terms of familial support, cohesive care and social engagement.

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Attitudes of Muslims towards female education in relation to inhabitant and family size

* Md. Javed

Abstract- *Two hundred Muslims of different age groups residing in rural and urban areas of Saran district area of Bihar state have been chosen for the purpose of the study. Two hypotheses were formulated for empirical verification. ASFE was administered on both groups. Both hypotheses were retained.*

Key Words-Attitude, inhabitant, Education

Introduction: Education is the process of enabling learning, or the attainment of knowledge, expertise, values, beliefs, and practices. Educational techniques include storytelling, conversation, teaching, training, and focused research. Education often takes place under the supervision of educators, but learners may also educate themselves. It has been discovered that education is useful for girls as it will aid a girl in conducting domestic tasks. The common answer of about 70% respondents was that an educated girl is well able to look after the house. She also tends to nurture her children in a far better manner. These results evidently reveal the strong male-controlled configuration of the Muslim community and back up the study of Biswal (2006) who inscribes that women are mothers by nature and a woman's place is her home where the epitome of womanhood is connected to patriarchal principles allocating a subordinate place to women. Compassion for spouse, kids and other members of the family is charged on women as a 'first duty.' Parents have a pronounced impact on their children's education for the reason that they are their children's first teachers. The education that children obtain is very much reliant on the education that their parents had. The literacy of parents intensely marks the education of their children since the parents who have gone further than a high school education are found to be more involved with their babies and children than those who did not finish high school. Parents with less education do not join in as often in their children's education to some effect because they do not recognize the significance of their interface with their children in the matter of education. There are numerous socio-structural and institutional factors like safety, individuality and parity, and the correlation of these dimensions at the centre of the socio-economic and political processes that the community is open to on an everyday basis, which are accountable for marginalization of Muslim girl child from education.

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Family is the basic institution for the socialization of children. As the elementary unit for raising children, anthropologists commonly categorize most family organizations as matrifocal, conjugal, avuncular or extended. Sexual affairs among the members are controlled by rules relating to incest such as the incest forbidden.

The word family can be used figuratively to produce more comprehensive categories such as community, nationhood, global village, and humanism. The field of genealogy targets to trace family heredities through history. The family is also a significant economic unit studied in family economics. In India, the model and process to empower women has started recently as compared to other western countries. (Chadha, 2017). The situation of women in India has significantly transformed in modern Indian society.

Women must have equivalent roles to play for the development of the society but gender inequality is still a noticeable phenomenon. Few problems have appealed greater interest among academicians and activists in India than those regarding women and Islam, but much of this interest is caught up in fallacies that generally leave Muslim women invisible. It is a well known statement that the change is the law of nature. So is the nature of human being. In the same way, on the subject of change, the Muslim women cannot be overlooked. It is generally believed that Indian Muslim has failed to survive the change that is taking place in Indian society at large (Sharma, 2015).

Objectives:

The study speaks about the educational and working status of women in general and relegated and minority women in specific. Yet, the data assimilated concerning the status of women from marginalized and minority section of society in the study is lesser accessible than the male counterparts from the same section in specific and male in general. Muslims from minority community in urban areas, particularly Muslim women, have a higher literacy shortage vis-à-vis the average condition prevalent in the state.

It is undeniable that the generous economic reforms announced in the 1990s have had a grave influence on numerous magnitudes of higher education. The whole educational environment has changed.

1. To study the variations on the basis of some social variables.
2. To study the variations on the basis of some psychological variables.

Hypotheses:

1. There is a significant difference between urban and rural Muslims on attitude towards female education.
2. There is a significant impact of family size on attitude towards female education.

Methodology:

The present study is about attitude of Muslims towards female education in relation to socio-psychological variables. In order to obtain theories and past researches related to the present study, journals, books and internet

resources have been used. It is a quantitative research. Primary data has been collected from the subjects' by their self-reporting on verbal scale/inventories.

Sample

200 Muslims of different age groups residing in rural and urban areas of Saran district area of Bihar state have been chosen for the purpose of the study. The age of the subjects ranges from 18 to 60 years.

Tools:-

PDS: A personal Data sheet was prepared by the researcher himself to collect relevant information with regard to education, sex, region (Urban-Rural), caste and size of the family.

Attitude scale for female education: This scale was developed by Dr. R.D.Rai and Dr. Feroz Ahmad (2017) for measuring attitude towards female education. Hindi version of an attitude scale has been used to measure attitude towards female education.

Result: It was hypothesized that there will be significant difference between urban and rural Muslims on attitude towards female education. ASFE was administered on both groups which were high educated and low educated group and then obtained scores were collected and treated. After calculating of Mean, SD and SE score t test was applied and t calculated and find out significance of difference between means.

Table No 1

Variable	Group	N	M	SD	SE	t	df	P
Attitude towards Female education	Urban	100	94.16	4.56	.456	8.96	98	.01
	Rural	100	88.78	4.12	.412			

From the table no one it is apparent that urban group of respondents showed positive and favourable attitude towards female education. Rural Muslim group of respondents showed negative and unfavourable attitude towards female education. The mean value of urban respondents was 94.16 and rural group of respondents was 88.78.

Urban group of respondents showed attitudinal superiority on rural group of respondents in respect of female education.

It was hypothesized that the attitude of rural and urban Muslims will differ towards female education. Finding might be interpreted in terms of area, location, style of living, awareness, open-mindedness and family culture. Thus, the first hypothesis is accepted.

Attitude and Family Size: It was hypothesized that there will be significant impact of family size on attitudes of Muslims towards female education. ASFE was administered on both groups which were high educated and low educated group and then obtained scores were collected and treated. After calculating of Mean, SD and SE score t test was applied and t calculated and find out significance of difference between means.

Table No 2

Variable	Group	N	M	SD	SE	t	df	P
Attitude towards Female education	Large family	100	93.45	4.34	.434	5.86	98	.01
	Small family	100	90.12	3.68	.368			

From the table no two it is apparent that large family group of respondents showed positive and favourable attitude towards female education. Small family group of respondents showed negative and unfavourable attitude towards female education. The mean value of large family respondents was 93.45 and small family group of respondents was 90.12.

Large family group of respondents showed attitudinal superiority on small family group of respondents in respect of female education.

It was hypothesized that the family size will have a significant impact on attitude towards female education. Finding might be interpreted in terms of family income, fulfillment of daily needs, lifestyle, number of family members, education level of family members, locus of control and access to various social facilities. Thus, the second hypothesis was accepted.

Conclusion:

There is a difference in the attitude of rural and urban Muslims towards female education according to their rural/urban lifestyle in terms area, location, style of living, awareness, open-mindedness and family culture. Thus, the fifth hypothesis is accepted.

The family size has a significant impact on attitude towards female education in terms of family income, fulfillment of daily needs, lifestyle, number of family members, education level of family members, locus of control and access to various social facilities. The hypothesis number six was retained.

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Present primary education development status in Baksa district of Assam

* Jonali Chetia

** Gobinda Brahma

Abstract- *Primary Education is generally provided after completion of pre-primary education which is the key to success both the secondary and higher education of our country. It starts between the age group of 6-14 years of children, it is clearly mentioned in an article No.45 of Indian constitution. Proposed study area is Baksa district of BTAD (Bodo Territorial Area Districts) of Assam covering an area of 2400 sq.k.m and Mushalpur is the administrative headquarter of the district. According to 2011 census, the literacy percentage of the district is 70.53. Present study is dealt with the primary education development status in Baksa district of Assam. The study is also observed various primary education problems of the district and given various qualitative suggestions to overcome the problems.*

Key Words- Primary Education, Development, Problems, District.

1.00 Introduction: Primary education is provided after completion of pre-primary education which is provided between the age group of 6-14 years of children. Primary education is the key to success both the Secondary and higher education of our country. It emphasises physical, mental and social qualities development of children. The article No. 45 of Indian constitution is clearly mentioned about the free and compulsory primary education for all children of our country. Sarva Siksha Abhiyan (SSA) 2001 is one of the largest primary education development programme of our country which is looking for 100% universal primary education of children with schooling facilities in all habitations. Right to education Act (RTE) 2009 of 21A of Indian constitution is given more importance on universal enrolment, retention and provision of primary education for all children in our country. So SSA is adopted many primary education development programmes to fulfill the mandate of RTE, 2009.

1.01 Brief about the Proposed Study area (Baksa):

Proposed study area is Baksa district of BTAD (Bodo Territorial Area Districts) of Assam. The district is covering an area of 3056.89 sq.k.m and Mushalpur is the administrative headquarter of the district. According to 2011

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census, the district has total 950075 lakhs population and literacy percentage of the district is 70.53. In this district, different communities like Bodo, Assamese, Muslim, Bengali, Nepali and few Hindi speaking people are inhabiting there.

1.02 Review of Related literature : Here some of the relevant review of related literature are reviewed as follows:

NUEPA (2007) Carried out study on “Primary Educational Development of North Eastern states of India.” The main objective of the study was to investigate primary education development of North Eastern states of India. From the study it is found that North Eastern states of India’s primary educational development index is quite poor as compared to the other states of India. Mizoram is in top position but Assam is in lowest position.

Akhtar Parveen and Sarma Mukunda (2010) have written a book entitled “Education” on which they focused on Primary Education development in Assam prior to independence. He has mentioned that wastage and stagnation, illiteracy of adult, social evils, natural obstacles, defective administration, lack of unconsciousness of public are the main reasons for which primary education could not come to universalize in the state which are needed to be solved.

Basumatary, Ranjit (2015) reviewed on “A Comparative Study of School educational Status in the districts of BTAD.” In this study investigator has found that primary education is comparatively developed in BTAD than the secondary Education. According to the researcher, lack infrastructure, economic problems of guardians, problems of teacher-pupil ratio, lack of teachers training which are to be solved for the universalization of primary education of the state.

Basumatary, Chithum (2016) conducted a study on “Marginalized Bodo people.” In this paper investigator has pointed out that RTE, 2009 accelerating in BTAD but problems of are remain same in Bodo medium elementary schools. According to him, lack of infrastructural facilities, illiteracy and poverty of guardians, gender disparity, impractical curriculum, lack of teacher’s training etc. are the main reasons for which primary education in BTAD is not yet been universalized.

Borah, Biman Chandra (2016) carried out study on “Status of Elementary Education among the Missing Girls in Dhemaji and Jorhat Districts of Assam.” From the study investigator has found that quality of primary education both the Dhemaji and Jorhat district are not developed. Interestingly it is found that the girls dropout is less than the boys dropout both in the districts. The study has also shown that after appointed the TET teachers there has been gradual increased the number of teachers both the elementary schools of the district.

1.03 Objectives of the study :

1. To study about the number of primary schools in five different elementary

education Blocks of Baksa district.

2. To study about the present enrolment position of primary schools in different elementary education Blocks of the district.
3. To study about the number of teachers (trained and untrained) in five elementary Education Blocks of Baksa district.
4. To study about the Computer facilities in primary schools of the district.
5. To study about the nutritional facilities in primary schools of the district.

1.04 Hypotheses of the study:

- H1** It is assumed that number of upper primary schools are quite less as compared to the lower primary schools of the district.
- H2** It is supposed that girls enrolment is quite less than the boys enrolment both the lower primary and upper schools of the district.
- H3** It is assumed that there is no sufficient number of trained teachers both the lower primary and upper primary schools of the district.
- H4** It is supposed that there is no sufficient computer education facilities in primary schools of the district.
- H5** It is supposed that maximum number of primary schools are getting nutritional facilities in the district.

1.05 Methodology used for the study:

Normative Survey Method is used for the study.

1.06 Population and Sampling:

The study is carried out in all the primary schools of the Baksa district of BTAD and out of which five elementary education blocks are selected as the sampling area of study.

1.07 Tools used for data collection:

Questionnaire and interview schedule both are used in data collection.

1.08 Proceedure used for data collection:

Investigator himself directly communicated with the Block Elementary Education officers of the district and also administered the Questionnaire and interview schedule to collect the primary data from the source. Secondary data were collected by the investigator from the books, journals and internet to raise the standard of the study.

1.09 Analysis and interpretation of data :

Baksa district has been classified in to five Elementary Education blocks i.e. Gobardhana Education Block, Jalah elementary education block, Mushalpur elementary education block, Tamulpur Elementary Education block and Tihu Barama Elementary Education block. So, primary education development status of Baksa district is shown by the following table : 1.1 through the five different elementary education block of the district.

Table : 1.1 No. of primary schools in five different elementary education block of Baksa District

Year	Elementary Education Block	No. of primary school		Total
		Lower primary school (I-V)	Upper primary school (VI-VIII)	
2013-17	Gobardhana Elementary Education Block	125	15	140
2013-17	Jalah Elementary Education Block	195	35	230
2013-17	Mushalpur Elementary education Block	276	43	319
2013-17	Tamulpur Elementary Education Block	279	58	337
2013-17	Tihu Barama Elementary Education Block	99	18	117

Source : SSA and DEEO, Baksa district, 2017

The table 1.1 in above indicates that no. of lower primary schools are comparatively more than the upper primary schools in the district. Therefore total no. of primary schools of the district is 1143 where lower primary schools are 974 and upper primary schools are 169.

The present enrolment position of elementary schools of Baksa district of Assam is shown by the following table

Table : 1.2, Enrolment in primary schools of five different elementary education blocks of Baksa District

Elementary Block	Year	Lower Primary School (I-V)			Upper Primary School (VI-VIII)		
		Boys	Girls	Total	Boys	Girls	Total
Gobardhana Elementary Block	2013	2222	1350	3572	750	691	1441
	2014	2227	1370	3597	760	702	1462
	2015	2250	1380	3630	767	715	1482
	2016	2270	1385	3655	772	719	1491
	2017	2295	1397	3692	785	725	1510
Jalah Elementary Block	2013	4537	4587	9124	2005	1961	3966
	2014	4550	4590	9140	2025	2005	4030
	2015	4570	4595	9165	2050	2010	4060
	2016	4590	4720	9310	2060	2020	4080
	2017	4598	4728	9326	2065	2025	4090
Mushalpur Elementary Block	2013	13825	9058	22883	4180	2101	6281
	2014	13935	9095	23030	4220	2201	6421
	2015	14325	10005	24330	4260	2256	6516
	2016	14525	10055	24580	4279	2270	6549
	2017	14535	10075	24610	4285	2280	6565
Tamulpur Elementary Block	2013	20504	15110	35614	6661	5123	11784
	2014	20507	15115	35622	6665	5127	11792
	2015	20510	15120	35630	6670	5131	11801
	2016	20515	15125	35640	6675	5135	11810
	2017	20518	15130	35648	6682	5137	11819
Tihu Barama	2013	4335	4225	8560	2350	2240	4590
	2014	4360	4250	8610	2370	2245	4615

Elementary Block	2015	4370	4270	8640	2385	2270	4655
	2016	4380	4285	8665	2390	2285	4675
	2017	4385	4295	8680	2397	2292	4689

Source : SSA and DEEO, Baksa district, 2017.

The Table 1.2 in above indicates that the enrolment in lower primary schools were quite high as compared to the upper primary schools of the district. The boys' enrolment were also high than the girl's enrollment both in lower and upper primary schools of the district.

The table 1.3 below is shown the number of teachers in primary schools of Baksa districts in Assam –

Table : 1.3
Number of Teachers both (Trained and Untrained) in five Elementary Education Blocks of Baksa District.

Elementary Education Block	Year	No. of Teacher						No. of Trained & Untrained Teacher			
		Lower Primary (I-V)			Upper Primary (VI-VIII)			Lower Primary (I-V)		Upper Primary (VI-VIII)	
		Male	Female	Total	Male	Female	Total	Trained	Untrained	Trained	Untrained
Gobardhana Elementary Block	2007	161	39	200	87	05	92	200	00	90	02
	2008	163	42	205	88	06	94	204	01	92	02
	2009	165	43	208	89	07	96	207	01	94	02
	2010	167	45	212	91	09	100	211	01	100	00
	2011	168	48	216	94	10	104	216	00	103	01
Jalah Elementary Block	2007	400	103	503	222	25	247	450	53	228	19
	2008	400	104	504	225	27	252	503	01	250	02
	2009	402	104	506	229	29	258	504	02	250	08
	2010	405	107	512	232	31	263	510	02	262	01
	2011	407	109	516	235	35	274	515	01	269	01
Mushalpur elementary Block	2007	305	140	445	201	126	327	443	02	320	07
	2008	305	140	445	201	127	328	444	01	325	03
	2009	306	140	446	205	127	332	443	03	330	02
	2010	310	145	455	207	130	337	452	03	330	07
	2011	312	147	459	210	135	345	457	02	442	03
Tamulpur Elementary Block	2007	364	69	433	430	25	455	400	33	420	35
	2008	367	70	437	432	27	459	407	30	440	19
	2009	370	73	443	435	29	464	440	03	450	14
	2010	373	75	448	437	31	468	445	03	460	08
	2011	382	76	458	440	34	474	450	08	472	02
Tihu-Barama Elementary Block	2007	95	25	116	57	15	72	110	06	69	03
	2008	95	22	117	58	17	75	111	06	74	01
	2009	97	23	120	60	19	79	116	04	77	02
	2010	98	25	123	62	20	82	122	01	80	02
	2011	101	27	128	65	22	87	127	01	86	01

Source: SSA and DEEO, Baksa District, 2017

The table 1.3 in above shows that total no. of teachers both the male and female are quite high in lower primary schools than the upper primary schools of the district. In these schools maximum no. of teachers did their training in lower primary and upper primary schools of the district.

The present computer facilitated primary schools of Baksa district is shown by the following table.

Table : 1.4
Percentage of computer facilitated primary schools of Baksa District.

Year	Percentage of Computer facilitated primary school					
	Lower Primary School (I-V)			Upper Primary School (VI-VIII)		
	Rural	Semi-Urban	Urban	Rural	Semi-Urban	Urban
2013	0%	0%	0%	0%	0%	0%
2014	0%	0%	0%	0%	0%	0%
2015	0%	0%	1%	0%	1%	1%
2016	0%	1%	1%	0%	1%	1%
2017	0%	1%	1%	0%	1%	1%

Source: SSA and BEE0, Baksa district, 2017.

The table 1.4 in above shows that till 2013 there is no computer facilities in rural areas of lower primary and upper primary schools of Baksa district but from 2016-2017, we have found 1% computer facilitated elementary schools in lower primary and upper primary schools both the semi-urban and urban areas of the district.

The Table 1.5 below is shown the present nutritional facilitated primary schools of Baksa district.

Table : 1.5
Percentage of nutritional facilitated primary schools in Baksa District from 2009-2011

Year	Percentage of Nutritional facilitated school	
	Lower primary school (I-V)	Upper primary school (VI-VIII)
2014	95%	96%
2015	97%	96%
2016	98%	97%
2017	99%	98%

Source : SSA and BEE0, Baksa District, 2011

1.10 Major findings:

1. It is found that upper primary schools are not established within the 3 K.M. distance.
2. Govt. is looking for 100% universalization of primary education but implementation is major concern of this area of schools.
3. Gender disparity is remain the problem of this area of schools for which girl's enrolment is comparatively less than the boy's enrolment.
4. Wastage and stagnation both are the major problems of this area of schools.
5. Illiteracy and poverty are the two basic problems of this area of schools.
6. Computer education is not successfully implemented due to electrification problems of the schools.
7. Maximum number of schools are getting midday meal facilities but the quality of food and kitchen are quite unhygienic for the children.

8. Flood and erosion problems are directly effected in schools. Most of the govt. schools have no permanent building whereas these schools are temporally established nearby the dams.
9. Govt. is not sanctioned sufficient financial assistance to improve the infrastructure facilities of the schools.
10. There is no community participation in schools.
11. Teacher-pupil ration is not yet been maintained. So single teacher is remain the problem of these area of schools.

1.11 Suggestions for Remedy:

1. Primary schools should be established within the short walking distance. So, lower primary schools should be established within the 1 k.m. distance and upper primary schools should be established within the 3 k.m. distance.
2. Education authority should sincerely observe to solve the scholastic and co-scholastic problems of the schools.
3. Infrastructural facilities should be provided each primary schools of the area.
4. Illiteracy and poverty problems in guardians should be solved.
5. Community participation should be organized in every primary schools of the area.
6. Qualified and trained teachers should be appointed for the quality improvement of primary education of the area.
7. Inspection should be made by the govt. to see the real problems of primary education.
8. Govt. should sincerely implement all the plans and policies of primary education.
9. Mass awareness campaign should be organized to fulfill the universal enrolment, retention and provision of primary education.
10. Teacher-pupil ratio should be maintained. So, 1:30 in lower primary schools and 1:35 teachers in upper primary schools should be appointed.

1.12 Conclusion :

Primary education is the main basis of entire system of education .So future of the children is depended on the quality of primary education. Baksa distret is one of the educationally backward district as compared to the other districts of Assam. BTAD and Assam govt. should sincerely observe to develop the scholastic, co-scholastic and infrastructural problems of this area of schools. So, community participation in schools is also quite important. The govt. should sincerely implement all the plans and policies of primary education to make the primary education universal for all children.

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Importance of innovative practices for Professional development of teacher in higher education

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Abstract- *From the perspective of learning outcomes Guskey (2002) has defined teacher professional development as "systematic efforts to bring about change in the classroom practices of teachers, in their attitude and benefits and in the learning outcomes of students." The quality of educational process largely depends upon the quality of teachers. To achieve different academic standards, students must learn in new ways, which means teachers must teach in new ways. Research shows that professional development is most effective when teachers have ongoing, job-embedded opportunities to encounter, practice and master new instructional techniques. They also need to learn collaboratively from their colleagues. Now a day, advanced technology has effectively revolutionized human society. In such a climate professional development for a teacher is necessary, as new teaching information, techniques and methods are continually being updated and changed. A teacher's previous education and experiences alone will not be enough to serve throughout his whole career. However, there is a significant gap between the potential of modern education and what many students are actually learning. The adoption and exploration of innovative ideas in education is often slow. Instead, many educators still cling to old and increasingly ineffective method of teaching. For this reason professional development for a teacher is important for both new teachers and veteran teachers. Life long learning with some innovative techniques will keep a teacher motivated and thinking positively to overcome any obstacles face in the classroom. This paper highlights the need of professional development of teacher in higher education. It also focuses on how innovative ideas and practices enhance the teaching learning process and help a teacher in developing his teaching profession to meet the challenges of higher education.*

Key Words- Innovative practice, professional development, higher education.

Introduction: Great poet Williams Butler Yeats said, "Education should not be the filling of a pail, but the lighting of a fire." Education is a light that shows the mankind the right direction. The purpose of education is not just making a student literate, but adds rational thinking, knowledge ability and self-sufficiency when there is a willing to change, there is hope for progress in any field. In the present educational scenario, more stress has given on quality

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than on quantity. Whether it is teaching or research or evaluation. It may be noted that this quality has become key issue in each and every aspect of education that is from primary to higher education. The quality of education depends to a great extent on the quality of teachers. Unless we bring quality in teachers we can not expect quality in education order to face the challenges of this dynamic world, there is a need for drastic change in all aspect of teacher education so as to enable the teachers to develop appropriate teaching competencies and to prepare teachers to address challenges of local, national and global demands. The teacher educators should be trained in innovative use of information and training techniques to survive in the global area of qualitative technological information age. Restructuring of teacher preparation process is highly essential for professionalization and empowerment of the teachers. Because there is a wide gap between the expected teaching learning competencies and actual outcome.

By using innovative teaching methods teacher can provide better service to the students and teach them about the benefits of critical and innovative thinking. It ignites a passion for learning and provides students with the tools they need to succeed in life.

Objectives :

- To study about the ways and means to develop teaching profession.
- To provide some general idea about what teaching practices and processes are fruitful for a teacher of higher education.
- To analyse the importance of innovative practices for professional development of teacher.
- To provide some general suggestions to improve teaching techniques through new innovative ideas and practices.

Methodology:

Research methodology is a way to solve a problem systematically and logically, which help us understand the process, not just the product of research and analyzes methods in addition to the information obtained by the researcher.

This paper mainly based on descriptive method. As we know Descriptive research is aimed at casting light on current issues or problems through a process of data, collection that enables to describe the situation more completely. In this paper, necessary data are collected from secondary sources of data like — books, journals, magazines, internet etc.

Analysis:

Teaching as a profession:

The progress of a nation to a great extent depends upon the quality of its teachers. Teacher occupies a pivotal position in the educational system as well as in the society. Considered to be more than profession, teachers are regarded as the strongest pillar of the society. A teacher like a potter who delicately shapes our impressionable mind and mold it into a vessel that defines our perception and ambitions. Teachers have always been respected in all

societies. Today's world is passing through rapid changes and great advancements. In such a climate, even education system cannot resist change. As a result, the imperatives of new times, new demands and new visions assign more challenging role and responsibility to the teacher. Thus teacher is responsible for shaping or reshaping the behavior of the young ones in a socially desirable way.

As teachers are considered as the architect of a nation, there are some basic characteristics which are essential for this noblest profession.

- It essentially involves an intellectual operation.
- It draws material from spectrum of science.
- Best teaching transforms raw material into a practical and definite end.
- Teaching as a profession basically performs a social service.
- It requires a lengthy period of study and training.
- This profession has a high degree of autonomy that means free from any form of intervention
- This profession is based upon a systematic body of knowledge, collecting from different layers and spheres of human life and activities.
- It possesses an educationally communicable techniques.
- In teaching profession, a teacher always learns at all stages of teaching to meet the challenges of present world.

Role of teacher in higher education:

Teachers in higher education commonly aimed to develop their students way of thinking, acting and approaching in the field of study. Teachers have multiple role to play in higher education including teaching, research, consultancy, extension work, development of instructional resources and management of institutions. Therefore it is necessary to update the efficiency and competence of a teacher as a pre-condition to improve the quality of education. Now, the present world has witnessed a phenomenal change in every aspect of life due to knowledge, information and population explosion. Due to internationalized education system particularly higher education, the teacher needs to be trained to use modern technology in teaching. It helps in producing dynamic students who have to work and compete with highly qualified people for all over the countries. Each teacher needs to be aware of the rapid cultural and social change, advancement in science and technology, advancement in educational theory and practices. In order to face the challenges of the present world, qualitative improvements and enhancement of teaching profession of teachers is of great importance. So, upgrading the professional competence of teacher is the need of hour.

Concept of Innovative Practices in Teaching :

Education is an engine for the growth and progress of any society. It not only imparts knowledge, skills and inculcates values, but it also responsible for building human capital which breeds, drives and sets technological innovations and economic growth.

Etymologically, the word “Innovation” is derived from the Latin word ‘Innovare’ which means to change something into something new. It is a promotion of new ideas and practices in education and training.

There has been seen a tremendous shift in the ways and means of education services over the years. Research and innovations play an important role in improving the quality of teachers and the training imparted for all level of teaching.. They demand to introduce new and practices in classroom transaction and other activities. The teacher’s effectiveness be enhanced with good leadership and appropriate teaching methodologies.

Some Innovative Ideas and Practices for Teaching in Higher Education:

Creativity and innovation benefits both teachers and students. Basically teaching must oclude two major components — sending and receiving information. Ultimately a teacher tries his best to import knowledge as the way he understand it so any communication methods that serve this purpose without destroying the objective could be considered as innovative methods in teaching. The use of innovative methods in educational institutions has the potential not only to improve education, but also to empower people. Recently innovative teaching has been viewed as t constructivist, social-constructivist and student centered process whereby students should be active learner in a supportive environment, engaging in authentic and relatable problem-solving activities to stimulate learning. Innovation does not necessarily require novelty.

There are some innovative methods of teaching which could use to enhance the ability io teach innovatively:

Multimedia Learning Process:

Multimedia is the combination of various digital media types such as text, images, audio and video, into an integrated multi-sensory interactive application or presentation to convey information to an audience. The teacher uses multimedia to modify the contents of the mate t helps the teacher to represent in a more meaningful way, using different media elements. Creating multimedia project is both challenging and exciting. Because when students create multimedia projects, they tend to do it in a/group environment. Besides this, by working in a group the students would have to learn to work cooperatively and collaboratively

(2) Mind Map:

Mind map were developed in the late 60s by Tony Buzan as a way of helping students make notes that used only key words and images. They are much quicker to make and much easier to remember and review because of their visual quality a very interesting innovative method of teaching because it is a simple technique for drawing information in diagrams, instead of writing it in sentence is easy to refresh information in students mind just by glancing once.

(3) Teaching With Sense Of Humour:

Everyone loves a teacher with an infectious sense of humour. Looking

at the lighter side of the life not only fosters cordial relations between professors and students, but also provides welcome relief while trying to follow a difficult lecture on a complicated subject. Because teaching is challenging and learning is also challenging. And combining both are more challenging. Humour has the ability to relax people, reduce tension, and thereby create an atmosphere conducive for learning and communication. Humour strengthens the relationship between students and teachers, make a course more interest. and if relevant to the subject, may even enhance recall of material.

(4) Z to A approach:

This approach attempts to explain the application part of a particular concept first. The teacher should explain the application of a particular concept first and explain the effect of such application. It helps to make a particular concept clear. Students develop interest to know exactly the concept. It helps in creating long-lasting memory and correlation of a concept.

(5) Role Playing and Scenario Analysis Based Teaching:

It is another method of innovative teaching. Science based courses have practical but in support of those practical if students are given a scenario and other opinions to solve a particular issue, then the students are exposed to decision making in a given environment. One main advantage of role playing is the possibility to encourage evaluation and synthesis of the subject matter, while practically taking the students out of their chairs and allow them to learn it by doing. Besides these innovative practices, a teacher can use any comfortable teaching method which help to inculcate the necessary information in the classroom environment in a educationally excepted way.

Importance of Innovative Practices for Professional Development of Teacher:

From the perspective of learning outcomes, GUSKEY (2002) has defined teacher professional development as “systematic efforts to bring about change in the classroom practices of teachers, in their attitude and beliefs and in the learning outcomes of students.” In education, the term professional development may be used in reference to a wide variety of specialized training, formal education, or advanced professional learning intended to help administrators, teachers and other educators improve their professional knowledge, competence, skill and effectiveness.

If we analyze the importance of new innovative ideas and practices for teacher’s professional development, we found that:-

There is a significant gap between the potential of modern education and what many students are actually learning. Many educators still cling to old and increasingly ineffective methods of teaching. So innovative ideas in teaching is necessary to make learning interesting and engaging, especially for younger generations raised on the latest technology. Innovative ideas offer a- path forward for teachers to educate student with some useful skills and help teacher to build his profession technology based.

- Using innovative teaching methods help a teacher to reduce the habit of traditional textbook oriented teaching and open various doors to welcome new techniques, skills and new knowledge to make teaching more interesting.
- Professional development for a teacher is important for both new teacher and veteran teachers. Lifelong learning will keep a teacher motivated and thinking positively to overcome any obstacles face in the classroom. In such a case innovative practices help a teacher to upgrade his profession according to the present needs.

Innovative practices are needed for professional development of teacher because most of the current teaching force went through educational system and teacher training programmes that emphasized traditional didactic instructional methodologies. So teachers need professional development experience that addresses new methodologies as well as training in the use of technology.

- Teachers must have an understanding of specific subject area to help and guiding students in profitable learning directions, provide information when appropriate and asses students learning on an ongoing basis4ideas and practices of teaching help a teacher to build his profession fit for any condition.
- Now a day, advanced technology has effectively revolutionized human society. In such a climate professional development for a teacher is necessary, as new teaching information, techniques and methods are continually being updated and changed. A teacher's previous education and experiences alone will not be enough to serve throughout his whole career. In such a situation, innovative teaching practices provide various opportunities to upgrade his profession.

Findings:

This paper is confined to the analysis on importance of innovative practices for professional development of teacher.

From the analysis of this paper we found that for best learning outcome in higher education teaching must move from ineffective sit and get passive lecture to students centered teaching.

We also found that using innovative practices in teaching help to improve the job performance skill of the whole teaching staff. It also improving the job performance skill of an individual teacher. It helps to extend the experience of an individual teacher for carrier development. Innovative teaching also encourage a teacher to develop the professional competencies. Moreover, innovative practices allow teachers to prepare individualized lesson plans addressing the needs of individual students in every challenging situation.

We also found that it helps a teacher to track the outcomes of professional development in terms of student's achievements. And lastly we found that continuing professional development of college teachers is a missing component of quality circle in higher education. So, this paper is an attempt to hi Might the importance of new ideas and innovative practices for

professional development of college teacher.

General Suggestions:

As the diversification in higher education system continues, the civil society is increasingly concern with the quality of programmes offered to students. As a result there will be an increase in public assessments and international comparisons of higher education institutions. So, there are some geneial suggestions to meet the challenges:-

- There should be introduce various professional development programmes in colleges and universities.
- Through teacher education programmes teachers should be encouraged to innovate certain new teaching techniques according to the need of the subject matter.
- There should be some provision of developing soft skills in teacher training programme like social gracefulness and fluency in language personal habits, personality trait etc.
- There should have opportunities for teachers for collegial enquiry, help and feedback.
- Teachers enhancement programmes should be sustained and continuous rather than short term and one time.
- Teachers should be always encouring to introduce new ideas, techniques and any innovations in teaching methods and provide scope for research and professional development course.

Conclusion:

From the above analysis, we can conclude that the core objective of teaching is passing on the information or knowledge to the mind of the students. Any method using multimedia or modifying the existing conventional chalk-talk method are innovative if they ultimately serve the attainment of core objective of teaching. Thus, we can say that in today's era of information and knowledge, innovation is the path to progress for any nation and the future of the nation is in its classroom. Teacher of higher education should always upgrade the teaching techniques to meet the challenges of the present world and for this various new ideas and practices help a teacher to make continuous professional development.

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A conceptual analysis of Virtue Ethics

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Abstract- *Ethics is the branch of philosophy which provides the knowledge of systematic valuing of our voluntary actions and seek to determine norms, ideals or standards. Ethics, therefore, deals with human conduct along with the inner volitions and their motives systematically. It is concerned with several human problems which are psychological, philosophical, sociological, political in nature and includes furthermore aspects of humanity. Among the different branches of ethics 'Virtue Theory' of ethics or 'Virtue Ethics' is studied in the area of normative ethics. Virtue Ethics focuses on developing good character and traits in human conduct such as kindness, honesty, generosity. This paper is an attempt to give a conceptual analysis of the traditional as well as contemporary views of Virtue Theory of ethics.*

Key Words- Ethics, Virtue Ethics, Aristotle, MacIntyre.

Article: Ethics is an intellectual ladder to uplift human being as a superior species and it helps to maintain every individual's existence. The study of ethics also develops one's inner conscience. Ethical ideas are not some abstract ideas. The application of ethical theories recommends, defends, and seeks to resolve the practical problem of human morality, by discussing concepts such as right and wrong, good and evil, virtue and vice, justice and crime and so on. It is one of branch of philosophy which is concerned with the concept of value. The term 'ethics' has aroused from the Ancient Greek word 'Ethikos' which is derived from the substantive 'ethics' ('habit', 'custom'). Ethics is concerned with human conduct which is related to the permanent peculiarities of human character, as conduct (habit, behavior) is the spectacular display of one's character and it manifests human character.

There are three major areas of study within ethics, these are -

- 1) Normative ethics. It is a concern with the practical means of determining a moral course of action.
- 2) Metaethics. It deals with the status, foundations, and scope of moral values.
- 3) Applied ethics. It studies what a person is obligated to do in a specific situation in practical life.

'Virtue Theory' of ethics or 'Virtue Ethics' is studied in the area of normative ethics. Normative ethics is the study of what makes actions right or wrong,

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what makes a situation or events good or bad and what makes people virtuous and vicious. Thus, normative ethics is the study of ethical action. It is the branch of ethics that examines some set of questions which arise regarding either moral principle (that is how one ought to act) as standards of right action or virtues as standards of good character. Some of the theories of Normative ethics are – Egoism, Utilitarianism¹, Kantian deontology²² According to Kant

's deontological ethics, the primacy in ethics is the motive as well as the very act of implementing a law. Kant was basically a rule deontologist who depends on rules to make judgments in particular situations. Kant holds that the fundamental principles of our moral duties is a categorical imperative. It is an imperative because it is a command. Kant considers that ethics is 'practical philosophy' and virtue ethics.

Kant's deontology or the utilitarianism theory of ethics deals with the individual's action. But the study of virtue ethics analysis the virtuous character of an individual. Virtue ethics is a philosophical study which provides the sentient beings guidance for action, demolishes moral dilemmas and gives a more intellectual moral significance of the emotions. It is one of the oldest areas of inquiry of philosophical ethics which prevails among the ancient Greek Philosophers like Socrates, Aristotle and other early Greek Philosophers. Traditionally, virtue ethics deals with basic aretaic judgments like "his action was virtuous" or "courage is virtue" and it involved explaining the character of a voluntary agent as a driving force for ethical behaviour. Thus, virtue ethics (or aretaic ethics from the Greek *arete*) is concerned in evaluating ethical behavior by emphasizing on the virtues of one's character.

Virtue Ethics is different from the other branches of normative ethics like Deontology which is based on duty and Consequentialism, which is based on the outcome of one's act. Virtue ethics differs from these two regarding the way in which moral dilemmas are approached. For example: For a virtue ethicist the morality of 'lying' would be determined depending on different cases or situations, keeping in view the factors such as personal benefit, group benefit, and intentions (as to whether they are benevolent or malevolent). Hence, the virtue theory of ethics tends to lie less based on people's moral rules and instead focus on developing good character and traits in human conduct; such as kindness, honesty, generosity. This helps people to make the correct decision in the pathway of life. This approach of philosophical ethics contributes a lot to emphasize the vital role of motives in moral problems by a deeper understanding of morality. Virtue ethicists also emphasize on the need for how to evacuate bad habits or character to lead a morally more sensible life.

From the early Greek period through the medieval to the contemporary trends of philosophy we have different incompatible conceptions of virtues by different thinkers. Socrates is one of the first Greek philosophers to

encourage both scholars and the common citizen to convert their primacy of life's outlook from the materialistic world view to the conditions of humanity. Again, another important Greek philosopher Plato has discussed four Key virtues: wisdom, courage, temperance, and justice. Plato like other ancient philosophers maintains a virtue-based eudaemonistic³ conception of ethics.

However, the first systematic description of virtue ethics was written by Aristotle in his famous work "Nicomachean Ethics". According to Aristotle, when people acquire good habits of character, they become able to regulate their emotions and their reason. This, in turn, helps us to make morally correct decisions when we go through difficult choices. Aristotle posited an ethical system that may be termed as 'self-realization'. In Aristotle's view, when a person acts in accordance with his nature and realizes his full potential, he will do good and be content. For Aristotle, if happiness was held to be the goal then the awareness of one's nature and the development of one's talents is the surest path to happiness.

Aristotle was influenced by Socrates and Plato to take virtues as the backbone of one's life. Like, Plato, he regards the ethical virtues (Justice, courage, temperance and so on) as complex rational, emotional and social skills. Aristotle wrote two ethical treatises: the "Nicomachean Ethics" and the "Eudemian Ethics". These two words generally cover more or less the same ground, they begin with a discussion of eudaimonia ("happiness", "flourishing") and turn to an examination of the nature of arete ("virtue", "excellence") and the character traits that human beings need in order to live life at its best. A third treatise; viz, "Magna Moralia" (the "Big Ethics") is included in complete editions of Aristotle's works, but its authorship is disputed by scholars. Aristotle's principal idea in dealing with virtue ethics is that there are differences of opinion about what is best for human beings and to get profit from ethical inquiry we must resolve these conflicts of opinion.

St. Augustine is another important supporter of virtue ethics. St. Augustine was an extreme intentionalist in ethics. He has a remarkable position in virtue theory of ethics. The highest virtue, according to St. Augustine, is love. Love is the basis for all other virtues. This medieval thinker provides a Christian analogue to Plato's idea of the unity of the virtues. 'Virtues', he says is nothing but the perfect love of God.

In the contemporary period, Alasdair MacIntyre has a remarkable contribution to moral philosophy. His approach to moral philosophy is characterised as an attempt to revive an Aristotelian conception of virtue ethics which is known as a "peculiar modern understanding of virtue ethics." MacIntyre in his work on virtue ethics presents a historical narration of the development of ethics to illuminate the modern problem of 'incommensurable' moral notions; that is, the notions whose value cannot be reduced to a common measure. "After Virtue" (1981) is one of the famous works on ethics by MacIntyre. In this book, he has criticised the failed attempt of different

thinkers to provide a final universal account of moral rationality.

A moral ideal can be satisfactory only if it can provide for the complete development of all tendencies in human personalities. MacIntyre has reclaimed various forms of moral rationality and argumentation by taking Aristotelian ethics with its teleological account of good as the basis. MacIntyre was against the notion that ethics ought to be based on something. According to MacIntyre the enlightenment assumption that ethical problems can only be solved by pure reason is abstruse for common people. However, MacIntyre never holds that ethical problems are unresolvable. According to MacIntyre to solve moral problems a set of richer principles is needed than what pure reason can supply. For MacIntyre reason itself depends on tradition. The use of reason to undermine a cultural or religious tradition seems impossible. In his second major work, "Whose Justice? Which Rationality?" (1998), MacIntyre takes up the problem of giving an account of philosophical rationality within the context of his notion of 'traditions'.

MacIntyre is a key figure in the contemporary study on virtue ethics, which identifies the central question of morality as having to do with the habits and knowledge concerning how to live a good life. According to MacIntyre, being a good person is not about seeking to follow formal rules. Good judgment emanates from good character, he has defined the importance of moral goods as 'internal goods' or 'goods of excellence'. His seminal work in the area of virtue ethics is basically found in his famous work "After Virtue". However, there are several complexities in MacIntyre's approach to virtue ethics which cannot be avoided.

Conclusion: Identifying the nature of virtues is a primary difficulty for virtue ethics. As the question 'what is virtue' has a vast and conflicting prejudice. Again, the problem of how to apply virtue theory to moral dilemmas is also an abstruse problem to have a direct answer. However, the advocates of Virtue Theory respond to such objections by arguing that a central feature of virtue is its universal applicability. The response of MacIntyre in this regard is remarkable. According to MacIntyre, any account of the virtues must indeed be generated out of the community in which those virtues are to be practiced.

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Footnotes:

1. Utilitarianism can be considered as consequentialism which is a predominated school of thought in normative ethics. Consequentialism bases the morality of an action upon the consequences of the actions. The Utilitarianism theory of J.S Mill advocates the principle of 'greatest happiness of greatest number'.
2. According to Kant's deontological ethics, the primacy in ethics is the motive as well as the very act of implementing a law. Kant was basically a rule deontologist who depends on rules to make judgments in particular situations. Kant holds that the fundamental principles of our moral duties is a categorical imperative. It is an imperative because it is a command. Kant considers that ethics is 'practical philosophy'.
3. Plato's version of ethics indicates that human's wellbeing (eudaimonia) is the highest aim of moral thought and conduct. Plato has not accepted the theory that virtue is pleasure. He has also not accepted the principle that virtue is happiness though he has often supported happiness as the quality of wise man. He was not a utilitarian. Plato analyses the highest good is the aim of the moral action. It should be an end in itself and not a means. Goodness is intrinsic good and not extrinsic good.

Aspect of Realism in Plays of Oscar Wilde

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Abstract- *In the present article there is an analysis of aspect of realism which is present in Wilde's plays. The purpose of this paper is to study how the realism had an influence on Wilde's life, which makes him different from a traditional playwright to an extraordinary one. Wilde's works show his true reflection of the human personality in its multiple relations with reality. Though critics repeatedly emphasize the importance of his adherence to the principles of Art for Art's sake, a serious study of his works shows that he professed Art for Art's sake but practiced what a realist is expected to practice (Powell, 1990). The elements and tendencies of realism manifested themselves in his works. Wilde's attitude to and treatment of man are indicative of his firm faith in man's creative power. Wilde shows how literature reflects society, how the truth of reality is reflected in art, and how the emotional and rational are necessary for artistic creation. Realistic portraits and pictures look forward to the relationship between literature and reality, between visible reality and artistic truth, and between the emotional and the rational. It is the realism that makes Wilde a great artist (Powell, 1990). In order to find evidence to support my views I have analyzed the aspect of realism in Wilde's different plays by thorough study of his plays as well as I follow the views of different writers about his plays.*

Key Words- realism, reflection, human personality, art for art's sake, man's creative power, rational.

Introduction: Oscar Fingal O'Flahertie Wills Wilde was born in Dublin, October 16, 1854, who is famous not only for his works but also for his controversial life. We cannot deny it that he was a great writer and did a great job in his works. He wrote lots of pieces of works, but he was regarded at his best in the plays. He wrote nine plays in total but his four society comedies are most famous included one more i.e. *Salome*, which has biblical characters. Wilde arrived at his greatest height of success through the production of his four plays: **Lady Windermere's Fan (1892), A Woman of no Importance (1893), An Ideal Husband (1894) and The Importance of Being Earnest (1895)**. All these plays are well-constructed comedies of manners revolving around the social aspects of the Victorian society. They are the true picture of

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Wilde's presentation of epigrams and witticisms (Raby, 1997). The dialogues, the conversation and the elegant artificiality reveal Wilde's identity as both a man and a play-writer.

The critical reception of Wilde's society comedies results in understanding the divergence of contemporary and modern views of Wilde. This critical aspect helps in shaping the significant aspects of various views of the mind and art of Oscar Wilde. And this also helps in revealing the underlying truth of the Victorian society. Wilde's plays deal with many aspects of society such as socialism, class-consciousness, realism and humanism etc. The deep analysis of his plays shows that Wilde's works present that he believed in the eternity of reality: reality never comes to an end, but it is always in the process of change. Changes in reality signify motion; and like changes, motion is incessant and everlasting. Reality, as Wilde conceived, is not something dropped down from above; on the contrary, it is a living, growing, and developing complex knowledge and grows in complexity, so the knowledge, which is the reflection of reality, blossoms in man's head. Realism for Wilde is an imitative action; it provides nothing new, whereas true art should provide new ideals that lead to development. Wilde in his essay "**The Decay of Lying**" says, "Try as we may, we cannot get behind the appearance of things to reality" (Wilde, 1909). And in **De Profundis** (Wilde, 1961), the long letter that he wrote to Alfred Douglas in 1896: "It is in the brain that everything takes place. We know now that we do not see with the eyes or hear with the ears. They are really channels for the transmission, adequate or inadequate, of sense impressions. It is in the brain that the poppy is red, that the apple is odorous, that the skylark sings."

When asked whether his plays were realistic, Wilde replied: 'realism is only a background; it cannot form an artistic motive for a play that is to be a work of art' (Tydeman, 1982). Wilde portrayed his society comedies to be an exercise in style, a pastiche of different genres, and a style which clearly made him a precursor of modernist writings. His contemporary critics were so focused on the current trend of realism that they did not perceive Wilde's use of epigrammatic dialogue as original, but saw it rather as a sign of laziness. They thought that Wilde was simply being an idle conversationalist when he should have been constructing realistic dialogue. Powell disagrees with this assessment and offers some convincing evidence that Wilde was greatly influenced by Isben especially in **An Ideal Husband** that resembles Isben's **Pillars of Society** (Powell, 1990). Archer's reviews reflect the assumption that Wilde was attempting to write realistic plays. Archer is preoccupied with realistic characterization and grows increasingly annoyed with Wilde's epigrammatic dialogues, which he finds more distracting with every play (Archer, 1893). Other critics also assumed that realism was the only way to present a problem play and were otherwise befuddled by Wilde's mixture of sentimental melodrama and witty Comedy of Manners. And rightly so, for

the two genres are normally diametrically opposed; melodramas were constructed around a clear moral vision of society while the Comedy of Manners was constructed around conflicts that arise from violating social conventions. As a result, it did not seem to occur to critics that Wilde was deliberately trying to merge two different styles of writing, for, despite the frequent usage of epigrammatic witticism, Wilde's society comedies break with the genre of Comedy of Manners. Wilde's society comedies are problem plays that confront traditional morality, hypocrisy, and question traditional gender roles (Abrams, 1999).

Either we talk about the Victorian society or the modern society, hypocrisy is so much prevalent that it becomes evident to show the realism somewhere hidden in the hearts of society. Therefore, the main objective of the present study is to understand this concept of realism, which is relevant in present times also, in the plays of Oscar Wilde.

Literature Review:

William Archer's analysis of **A Woman of No Importance** reflected a distinct ambivalence towards Wilde's plays. On one hand, Archer appreciated Wilde, bestowing on him the great compliment, "Mr. Oscar Wilde's dramatic work [...] must be taken on the very highest plane of modern English drama, and furthermore that it stands alone on that plane" (Archer, 1893). And on the other hand, Archer is careful to express that he is no great fan of Wilde's use of epigrammatic language. He added that, "it becomes fatiguing, in the long run to have the whole air-a-shimmer, as it were, with iridescent" (Archer, 1893). Archer perceived **A Woman of No Importance** as an important play in what he believed to be the natural evolution of drama towards realism.

Wilde presents an element of melodrama in this play. Wilde presents the underlying reality of the society. The people do whatever they want at any cost and hide the reality not only with the society but also with their own family. **An Ideal Husband** is proved a powerful play as it presents the true essence of Wilde's thinking. The commitment of a sin in the past and then acceptance of this sin shows the reality of the Victorian society.

Eltis comments on this ambiguity in **Revising Wilde**, where she discusses how **An Ideal Husband** does not contain a distinctive thesis and antithesis, in contrast to **Lady Windermere's Fan** and **A Woman of No Importance** (Eltis, 1996), both of which she finds are centered more on a distinct theme, as she asserts: "Rather, [An Ideal Husband] . . . is constructed in layer upon layer of assertion and contradiction. Characters alternately depend upon and subvert traditional stereotypes. Apparently unironic statements are rendered ambiguous by the action which accompanies them. While presenting a reassuringly familiar melodrama of intrigue and blackmail, Wilde placed his action in the centre of nineteenth-century political life, and examined the issues of private and public morality and their relation to the contemporary debate on the role of women in society."

According to Bernard Shaw it is enough to see or read the play, to enjoy the wit, and to stop there, without making exaggerated claims for it. In his reviews he wrote: "Mr. Wilde is our only thorough playwright. He plays with everything: with wit, with philosophy, with drama, with actors and audience, with the whole theater... it is useless to describe a play which has no thesis: which is, in the purest integrity, a play and nothing less." Shaw's comment is in line with Wilde's own critical comments written in the Preface to **The Picture of Dorian Gray**, which insists that literature has nothing to do with moral or immoral: "Books are well written, or badly written. That is all" and "Vice and virtue are to the artist materials for art" (Wilde, 2007).

A contemporary of Wilde, Grant Allen, had commented on what he saw as the growing irrelevance of critics, nothing that '[t]heir authority is only recognized within a small sphere of picked intellects, and does not affect the general current of the popular mind' (Allen, 1882). Allen was hostile to what he termed 'newspaper criticism'—exactly that form of witty, summary reviewing which Wilde had undertaken for so many years for papers like the *Pall Mall Gazette*. Allen saw such writing as a form of 'decadence' responsible for lowering readers' expectations and thereby degrading critical standards.

Realism in Plays of Oscar Wilde:

To understand the concept of realism in the plays of Oscar Wilde, the following plays have been considered namely a) *Salome* b) *A Woman of no Importance* c) *Importance of Being Earnest* and d) *An Ideal Husband*

Salome:

In this context, **Salome** is vastly different from Wilde's society comedies which were rapidly to follow in the early 1890s. This exotic one-act play has more the atmosphere of the earlier poem **The Sphinx** in its variations on the themes of obsession, lust, incest, and violence. **Salome** moves forward largely on the basis of ritualistic repetition and a unifying pattern of imagery. Richard Ellmann, in **Oscar Wilde: A Collection of Critical Essays**, described this unity as "the extreme concentration upon a single episode which is like an image, with a synchronized moon changing color from pale to blood-red in keeping with the action, and an atmosphere of frenzy framed in exotic chill" (Ellmann, 1988). **Salome** is Wilde's most completely decadent work. While the play exhibits a few traces of a moral point of view — Jokanaan's rejection of Salome and Herod's fearful conscience at the end — the dominant impression is one of macabre beauty, and the climax is reached when Salome kisses the bitter lips of Jokanaan's severed head. This impression was undercut for critic Alan Bird, who, in **The Plays of Oscar Wilde**, contended that even in this play Wilde's wit shows through: "Yet the reader can never escape the uncomfortable sensation that the author is actually parodying the action, the words, the characters, the whole ensemble of the drama. This suspicion of parody, however faint, produces an intentional distancing, a deliberate alienation, which far from allowing us to dismiss the drama seems to increase

the total effect of decadence” (Bird, 1977).

Salome was not the first play in which Wilde mentioned the element of realism. The society comedies are so conventionally structured well-made plays that they do not represent any formal dramatic innovation, but it is less certain that they were motivated mainly by a possible income. The plays also dramatize Wilde’s interest in the multiplicity of personality. The most beautiful presentation of this is in *Earnest*, where the invented personalities of Bunbury and Earnest become invested with a reality that in Earnest’s case is permanent. In the other dramas too there is a range of identities that are more or less invented.

A Woman of No Importance:

In ***A Woman of No Importance***, the persona of the widowed Mrs. Arbuthnot is adopted by a woman who says that

One name is as good as another, when one has no right to any name.

(Act II, p.105)

This is nothing more than the search in real sense. Although the offer of the name is made for both Gerald and Mrs. Arbuthnot in Illingworth’s proposal, it is refused by them both, and along with this Hester, although she has earlier referred to ‘ruined women’ as ‘nameless’ in a more critical fashion. The possible identities of ‘Gerald Harford’ and ‘Lady Illingworth’ float for a moment in Lady Illingworth’s proposal, and in a certain social sense they are actually true, but are rejected; both mother and son prefer the invention of Arbuthnot as representing the people that they have become. The characters of Mrs. Erlynne in ***Lady Windermere’s Fan*** and Mrs. Cheveley in ***An Ideal Husband*** are less explicitly but equally invented and convenient labels under which to face the world, but in all cases the name is no longer the disguise when it was first adopted as it does with Jack at the end of *Earnest*.

The Importance of Being Earnest

In the play ***The Importance of Being Earnest***, Wilde presents people’s behavior and sentiments to present the real world. In this context, Algy declares that “well, I can’t eat muffins in an agitated manner. The butter would probably get on my cuffs. One should always eat muffins quite calmly. It is the only way to eat them”(IBE, 327). Wilde tries to carry off this behavior better than most of the playwrights. His plays always work at two levels, which enrich each other: it pokes fun at the manners of a particular class, and it satirizes the human condition. Wilde always uses his characters to evoke the verbal texture of the play in a way that prefigures techniques of the drama of the absurd. Characters use words like serious and nonsense in a manner that sends out little ripples of significance. Jack warns Algy:

JACK: If you don’t take care, your friend Bunbury will get you into a serious scrape some day.

ALGERNON: I love scrapes. They are the only things that are never serious.

JACK: Oh, that’s nonsense, Algy. You never talk anything but non-sense.

ALGERNON: Nobody ever does.

(p.301)

In the middle of the play, absurd itself is used repeatedly to evoke a sense of Nothingness. Jack cannot understand how he should have a brother in the dinning-room: "I don't know what it all means. I think it is perfectly absurd" (p.311).

Algy will not deny that he is Jack's brother: "It would be absurd" (IBE, 313). Jack says the same about the notion that Algy should lunch twice and he thinks Algy's presence in the garden "utterly absurd" (IBE, 313). These words are used in jokes and casual comments. The use of paradox also performs the same function which is a sort of miniature stylistic enactment of the notion expressed in one of the boldest: "In matters of grave importance style, not sincerity is the vital thing" (Barnet, 2014). This pokes fun about earnest and serious. Wilde's rapid use of paradox after paradox presents a picture for us, a world in which men make, undo, and remake reality with almost every sentence they utter. Wilde presents a world in which the social values are continually evaporating; values respecting social class, education, money, love and the family undergo constant metamorphosis. Attitudes towards society, especially family are greatly transformed. Algy cheerfully dismisses the sentiments associated with kinship when he says "Relations are simply a tedious pack of tedious people, who haven't got the remotest knowledge of how to live, nor the smallest instinct about when to die" (IBE, 296). Gwendolen complains about her lack of influence over her mother. On one side she wants to say that Mr. Worthing is respectful but on the other side she suspects him when she talks about it to Cecily:

Well, to speak with perfect candour, Cecily. I wish that you were fully forty-two, and more than usually plain for your age. Ernest has a strong upright nature. He is the very soul of truth and honour. Disloyalty would be as impossible to him as deception. But even men of the noblest possible moral character are extremely susceptible to the influence of the physical charms of others. Modern, no less than Ancient History, supplies us with many most painful examples of what I refer to. If it were not so, indeed, History would be quite unreadable.

(p.320)

Lady Bracknell also has the same nature. She asks Jack about his age and his views on marriage and when Jack shows his ignorance, she complains about the education system of England: I am pleased to hear it. I do not approve of anything that tempers with natural ignorance. Ignorance is like a delicate exotic fruit; touch it and the bloom is gone. The whole theory of modern education is radically unsound. Fortunately in England, at any rate, education produces on effect whatsoever. If it did, it would prove a serious danger to the upper classes, and probably lead to acts of violence in Grosvenor Square. What is your income?

(p.293)

In contrast to **Lady Windermere's Fan, A Woman of No Importance** focused on Wilde's use of epigrammatic dialogues of melodramatic sources. In this sense **A Woman of No Importance** illustrates an important development in dramatic criticism, where critics increasingly struggled with aspects of style and psychological realism.

An Ideal Husband: In this context **An Ideal Husband** also presents the real Victorian society. In Act IV, Lady Chiltern believes that Sir Robert's ambition has led him astray in his early days. She says that power is nothing in itself. It is power to do good that is fine. Her husband admits to Lord Goring that he bought success at a great price. Yet he is highly respectable, selfless and a model of virtue in front of society. On knowing her husband's guilt, Lady Chiltern complains not of his pretense but of his inability to "lie" (IH, 232) to her for the sake of "virtues" (IH, 232) he has been socially known for. At this Lady Chiltern cries out: "Don't come near me. Don't touch me. I feel as if you had soiled me forever. Oh! What a mask you have been wearing all these years! A horrible, painted mask! You sold yourself for money. Oh! a common thief were better. You put yourself up for sale to the highest bidder! You were bought in the market. You lied to the whole world. And yet you will not lie to me!" (IH, 232).

This exposure means undressing or disclosure of the authentic self. There is no doubt that Sir Robert has done a serious mistake (Miller, 1982). But all sympathies turn on him when he tells that he never wanted to be an ideal that he would have preferred to be loved for what he is. As the story proceeds it is noticeable that the couple's relationship is based on a lie. In reality they wear a mask and try to pretend that their relationship is perfect, not realizing that their lies are actually destroying their relationship. Wilde through these masks wants to show the reality of Victorian people. (Wilde, 1995) Wilde tries to construct this theory of identity the reality through art.

Conclusion: It is clear from the above said points that while Wilde has serious plots for his plays but all his plays are basically comic in nature. As such, they are closed to a form of dramatic comedy known as comedy of manners (a comedy of manners is a play whose purpose is to satirize human vagaries). They focus on a particular stratum of society and make fun of that society's hypocrisies, vanities, pettiness, failings and many others. Wilde portrays his characters in such a way as if they are among of us not from any other planet. All these are presented in such a funny way, they not only amuses us but also present our follies. It is certain that Wilde was an incredible, talented artist who still has an influence on other artists long after his death. He was innovating and true to himself and had an ability to challenge society's norms. Wilde was a real artist who defended the concept of "art for art's sake". His works are not only to entertain but also to inspire others (Wilde, 1989).

Limitations: The critical study of Wilde's various society plays reveals that

his work is not limited to only one aspect of Realism. There are many other aspects such as individualism, humanism, socialism and spiritualism, etc. that can also be studied. The other limitation of the present study is that it is confined to Wilde's four society plays and one more Salome only, but in reality he has written nine plays (Veera; or, The Nihilist, The Duchess of Padua, A Florentine Tragedy, etc.) in total and those plays can also be studied and can cover all these elements. Furthermore, the study is based on a writer who is considered as controversial and on whom less work is done.

Recommendations based on the Study and Directions for Future Research: Similar research can be done on some more aspects such as individualism, humanism, socialism and spiritualism in Wilde's plays. Further research can also be made on other plays (Veera; or, The Nihilist, The Duchess of Padua, A Florentine Tragedy, etc.) of Oscar Wilde to study the various aspects of Wilde's plays.

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Mamang Dai's The Black Hills: A New-Historical Reading

*** Gulsan Basumatary**

Abstract- Mamang Dai throughout her historical novel *The Black Hills* has opened the possibilities to look back at North East India, specially her land, Arunachal Pradesh and Adi people through the colonial experience we have gone through. In attempt she is trying to dig and remember the plural history of the region. Firmly rooted in the soil of her birth place; rivers, mountain, trees, jungles, rituals, legends, mythology, dances, and villages, Dai talks about the mystery that shrouds the origin of the people of her region. Since the Adi tribe has no records of history, the rich oral tradition and the mythical stories becomes a process of historiography through her artistic craftsmanship. In the present novel Dai resuscitates a chapter of North-East India which is largely ignored by the mainstream historians with a delightful blend of myth and history of Abor and Mismee tribe, and also portrays a community's love for their own land, culture and identity that they had inherited from their forefathers. In this paper an attempt has been made to study the text from New-historical perspective.

Key Words- New-Historicism, Adi Tribe, Arunachal Pradesh, Land, Missionary.

Writing back of history through a work of fiction in a way that has not been recorded before and that needs to be rewritten, seeks to reconnect a work with the time period in which it was produced and identify it with the cultural and political movement of the time. Here historians' view is not seen assimilating with what traditional historians have said and written about a particular but crucial period the people on land witnessed offering how the historians' interpretations of a topic have gone through changes over the time, and where and what are the grounds of disagreements between historians. The colonial historiography was incomplete and without a balanced view of the people and their actual history. However, in the post colonial period, an attempt was made by the historians to write composite history of underrepresented regions. In the words of Frederick Turner 'Each age tries to form its own conception of the past. Each age writes the history of the past anew with reference to the conditions uppermost in its own time'.

Historiography is mostly important for all historians facing a sense of

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identity crisis-regardless of the audience they are addressing- because it offers a level of transparency that allows other to better understand the source of your information. Rewriting of history is a form of throwing light against forces that seek to wipe away the glorious past. It is a way to inject personal voice and narrative experience into the domain of history. There can be no universal and totalizing claims to human history and those who wish to assert so might be doing so to advocate a self-serving agenda. It is an ability to 'read the world' in our own way, a manner that is authentic and beyond the control of external forces.

'New-Historicism', as a theoretical approach, introduced first by Stephen Greenblatt in 1980s, deals with reading history imaginatively and subversively. Provided with the features of the Post-modernism, it puts emphasis on the intervention of subject and the rewriting of history. Peter Barry in *Beginning Theory*, defines it as "a method based on the parallel reading of the literary and non literary texts...instead of literary 'foreground' and a historical 'background' it envisages and practices a mode of study in which literary and non-literary texts are given equal weight and constantly inform or interrogate each other" (Barry,2002:116). Greenblatt and other historicists such as, Louis Montrose, and Jonathan Goldberg concern themselves with the political functions of literature and the concept of power, the intricate means by which culture produce and reproduce themselves. The New-historicists seek to understand literature from a historic perspective, which they feel that the New-Criticism did not provide (Bressler, 2003:182). A new historicism is against the traditional historicism and formalism for it breaks through the verge of literature, and creates an opening space of reinterpretation. It aims at deconstructing the historical materialism and of supplying a deficiency for the historical materialism. This school of thought is interested in discovering lost histories and in exploring mechanisms of repressions and subjugation. New historicism, thus, as Louis Montrose suggested, deals with the "textuality of history and the historicity of texts".

The writers writing in English, emerging from North-Eastern part of India have come forward to provide a new dimension of looking or reading back of diverse aspects of the region in their attempt of creating something of classic standard. To stand to the test of time, realization of the experiences experienced with underlying universal appeal aides the historians and academicians down the generation. On the white sheet, writers of different culture and linguistic group, as a good story teller, sprinkling emotion, recollection, attachment and concern for each other are exploring the phase of their struggle and experimentation underrepresented before. This small piece of literature is a record of our familial orientations, the process of socialization including our beliefs, attitudes and the values prevalent in our religion, the conflicts between the ruler and subject, mainstream and marginalized, oppressors and oppressed, repeated ethnic conflicts,

insurgencies, fierce massacre and bloodshed in the region, and at the same time, celebrates the suppressed “other”, challenging the dominant culture and questioning concepts of established authority. Centuries of maltreatment, complete disrespect and negation of the natives’ values and culture alienated the subjugated people from their own lands and brought an erosion of their identity. Beliefs established by the colonizers that indigenous peoples were savages and their culture was less important proved to be wrong. So, in the post-colonial period, the North- Eastern writers challenge to find and re-establish their lost national identity, history and literature, and to define their relationship with the land and language of their former masters.

Poet, novelist and journalist, and the recipient of Padma Shri in 2011, Mamang Dai switched from journalistic writing to creative writing and contributed much to the North-East English literature through her poetical and fictional works. She is one of the most exciting new voices in English for whom writing is an urge and that opens for her to tell the mysterious stories of Arunachal Pradesh and her Adi people. She is firmly rooted in the soil of her birth place; rivers, mountains, trees, jungles, rituals, legends, mythology, dances, villages and so on. In an interview she says:

“I am tribal, and the geography, landscape, our myths, stories, all this has shaped my thoughts...”

There is a reasonable resentment among the various tribes of Arunachal that during the pre-colonial and in colonial period their history was not written as they were in non-literate stage of civilization and had not developed the art of writing. However, the tribals such as Adi, Monpa, Aka, Miji, Nishi, Tagin, etc. had their oral tradition, myths, legends and genealogy, enchanting folk-songs, etc. stock with a glorious heritage of arts and crafts,. Their colourful festivals are manifestation of their faith and belief. The French structuralist Levi Strauss says that tribes belong to “the society without history”. The clan and family genealogist are the important sources of information to reconstruct their history. Their origin, migration and settlement are reconstructed by oral history.

Mamang Dai’s historical novel *The Black Hills* (2014) is a milestone in North-East Indian writing in English unfolding a story set between 1847 and 1855. She tries to reposition the text in the original discursive reality of the age in which it was produced. History tells that the North-Eastern people have been fighting and facing an immense crisis of identity and a sense of alienation over the last few decades. Bapsi Sidhwa, while discussing about her novel *Ice-Candy Man* states: “Historians are often guided by their own and their nation’s prejudices. Fiction-writers can paint a fuller canvas and often intuitively arrive at the larger truth.” (Sidhwa, 62-63). Interested, mostly in the native culture; especially that of Adi tribe and their rich oral narratives, Mamang tried to promote the disappearing traditions in the face of modernity, and to give voice to its people through the imaginative space of her artistic

craftsmanship. The narrator, inseparable from the writer in Prologue, tries to tell “many of the lost stories in the world and versions that were misplaced yesterday or a thousand years ago”, a story “from an unwritten past hidden beyond the mountain wall” in which “all that matter is love, and that memory gives life, and life never ends”.

Set in the mid nineteenth century North-East India, the novel brings forth the poignant account of inter-tribe marriage between an ambitious girl, Gimur from Abor tribe in the area now known as Assam and Kajinsha of Mismee tribe. Dai painted their tale with the arrival of East India Company into the region that had also brought in the Missionaries. One of them referred to here is Father Nicholas Krick, a Jesus Priest who “walked across these hills carrying a cross sextant” to carry his mission to Tibet whose mission instilled fear and suspicion among warlike tribes as Kajinsha said, “Everyone wants to go to Tibet and walk through our land to get there. They want to see us, you, me, our homes and our houses and...” (Dai, 102). He was in search of “faith that is unshakable” and for which he needed to live another new life. The book focuses his journey in late September upstream on the river Siang through the Mismee hill and the tribal villages for quest and single minded determination to reach Tibet, netted with the most precarious circumstances. ‘Missionary Zeal’ is visible most on him. Father Krick undergoes all kinds of troubles, lives among those tribes who don’t welcome him, the unknown brave mountain, befriend people, gets cheated by them, but never gives up his mission to set up a church in Tibet. *The Black Hill* is a richly imagined story that had recorded the mysterious disappearance of the Priest and the execution of Kajinsha for his murder.

In the novel, Dai colors three different loves; the inter-tribe love of a couple, a French Priest’s love for his divine calling, and also portrays a community’s love for their own land, culture and identity that they had inherited from their forefathers. In thick jungles and barren landscapes these loves intertwine. In the process, Dai strongly explores a chapter of North-East India which is largely ignored by the mainstream historians. Through their story Mamang takes us through their villages, the relationship that exists among the tribes, introduces us to the faith they follow, their delightful myths, the dream they see and the superstitions that dictate their lives.

It also focuses that the Company tried to enlighten the country people with bookish knowledge as well as tried to divert the natives’ attention. Yet the natives did not submit so easily to the *milgum*-the white men. Being a curiosity seeker, Gimur wanted to learn the words in the book where as her mother is seen commenting, “What are these things? Words! What are words?” she cried. “Speak the words you mean and say no more. Go out and work! See how leaves and shoots grow. Do they speak words or make a sound? No! If you work you will have no time for idleness, wasting time with these white, dead leaves!” (Dai, 33).

As explained by Clued Levi- Strauss in *Race and History*: “Humanity is confined to the borders of the tribe, the linguistic group, or even, in some instances, to the village...” (Strauss, 12). The fear that was brought by British to the isolated lives of the black hills united the tribes, thus, arousing patriotism within them. Lendem said, “No one wants the British to come into the hills. The elders have decided, and we, all the tribes, we are together in this. If the migluns want to use force, just let them try!” (Dai, 24). As they had been living in this land for centuries, while superiors had come and gone, there is no single possibility of dividing their land. Even they believed that if a man owns land he owns rest, and Kajinsha remarked ‘the land is our book’ (Dai, 141). It is no less than their religion. Kajinsha, being young and brave wishes in vain to unite all tribes against the British in order to protect their land and their ways. But the rival tribals could not easily be united, yet he is determined to keep the “White men” out of their land.

The British administration in Assam and Brahmaputra Valley, their colonial motive was not hidden to them. The description of how the natives come together to fight with the strangers on their territory, how they guard their routes that lead to Tibet, makes the reading more and more interesting. Father Nicolas might be a non-violent servant of God, wanted to carry the message of God through that country- injects suspicion and fear. They had the fresh memory that whatever the purpose of the Priest might be; serving, exploration, friend or trading but ‘following on the hills of every white man came the army’ and ‘wherever the migluns go they bring death and outrage’ (Dai, 19). The presence of the miglun was fueling the environment of war and violence. Gimur muses, “the root of conflict... men spoke of land as possession... every piece of land was claimed... men fought and kill each other. Blood flowed. Brothers became enemies... what is land? Why is it so precious?... it is where you are born! ...and how important was that?” (Dai, 70).

Though Kajinsha and Krick established an understanding with the minimum of words, but Krick’s connection to Gimur was the most poignant account that points the layered nature of colonialism towards what they term as ‘other’. The married bliss of the couple was exploited that caused them to suffer in isolation and ultimately Kajinsha was executed in Debroogurh jail. He cried helplessly, “Tell them about us.” “Tell them we were good. Tell them we also had some things to say. But we cannot read and write. So we tell stories” (Dai, 288).

The novel is a voyage of exploration of unexplored North-Eastern Region. It is full of sheer lyrical beauty which she beautifully crafted and brilliantly edited. The work has originality in its content. It illuminates the dark corner of her tribe, some crucial episodes that had exploited the quite breathing of her innocent country people. It is the rewriting of marginalized society. The content cannot be viewed in separation from the larger political events unfolding at that time. Though there are numerous references to the

beliefs that the Whites are coming deeper and deeper and with them came 'death and captivity' but what was it they wanted, so far away from home? What hungers drove them towards the Black Hills?, Dai has not given the solution in the novel. The novel, however, is a great record of the history, confluence of cultural practices and myths, a scenario of the turmoil during colonialism designed in sophisticated imagery, and a projection of the depth of experiences and realizations during the novelist's life time.

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Idol immersion in ulsoor lake and its effect on the zooplankton

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Abstract- *Cultural diversity and religious uniqueness make India rich in diversity. One among the most celebrated festivals in north India and south India is the Ganesh Chaturthi. It is a festival that follows the tradition of immersing idols in the water bodies, which denotes sending away the soul of Lord Ganesh. This Tradition of immersion of idols has been followed over a thousand years and is continued. With the rise in advancement and creativity, the composition of idols also changed. Idols are constructed now with plaster of Paris, cloths, small iron rods, bamboo and decorated with different paints such as varnish, watercolors, etc. Paints which are used to color these Idols contain various heavy metals which increase the threat to the water resources by altering the quality of the water. The study was conducted in Ulsoor Lake by checking the physiochemical parameters of the water before and after immersions. The toxicity and effect were studied on zooplankton of the lake, as they are the biological indicators. The increase and the decrease of zooplanktons before and after immersion were taken into account by identifying and analyzing the zooplankton count. Heavy metals such as Mercury, Cadmium, Arsenic, Zinc, Chromium, and Lead which are potent carcinogens were noted during the study.*

Key Words- Idol immersion, heavy metals, Ulsoor lake, toxicity, zooplankton count.

Introduction: Pollution of water bodies is one of the greatest challenge, faced by humans. Water resources quench the thirst of billions of humans hence sustaining its quality is of much importance for the survival of mankind. In recent years intrusion of man activities is the main threat to the waterbodies as increased anthropogenic activities in and around the water resources damage the aquatic diversity and quality of water. The water bodies from time immemorial had an aesthetic look, satisfying the thirst of millions of people have today been loaded with toxic material and chemicals, which have rendered them almost useless (Sripathy et al 2012). Lakes are the most fertile and interactive ecosystem. Comparing to the running water bodies, lakes are stagnant waterbodies which are fragile and complex as they accumulate great

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quantities of pollutants. Today lakes are the dumpyards of municipal and sometimes the domestic waste. The menace to the urban aquatic ecosystem is influenced by the long term discharge of untreated domestic and industrial waste runoff, accidental spills and direct solid waste dumping.

India is rich in cultural and festival uniqueness. Many festivals are celebrated with joy and one among them is the Ganesha festival. Ganesha Chaturthi is celebrated in the month of September embraces the respect to Lord Ganesha, by a custom called drowning the idols in the water resources like rivers and lake. This is one of the religious festival followed as a tradition mostly in north India and some parts of south India. Karnataka is one among the states of India, which celebrates Ganesha Chaturthi with great vibrance and ecstasy. By the advancement of technology and creativity, the ornamentation and composition of Ganesha idols also changed. This led to the threat of polluting the water resources selected to fulfill the tradition. Idols made for are constructed by plaster of Paris, clay small iron rods and decorated in different paints. Most importantly, paints which are used to colour these idols contain various heavy metals such as Mercury, Cadmium, Arsenic, Zinc, Chromium, and lead. Particularly, red, blue, orange and green colours contain mercury, zinc oxide, chromium and lead, which are potent carcinogens (Sripathy et al 2012). Lead and chromium are the metals which add into the water due to the disintegration of sindoor, which is a cosmetic powder used by Indian women which is also applied on the idols (Sayan et al 2014). The formations of idols with nonbiodegradable materials are posing threat to the lake as it becomes poison when it dissipates in the water. Consumption of contaminated water and foods results in biomagnification of heavy metals in the food chain as they enter the pathway of one trophic level to other and reaches the human beings (Times of India 2014).

Ulsoor lake is situated on the eastern side of Bangalore and it is one of the biggest lake in the city, it has a catchment area of 1.5 km² (<http://WikipediaUlsoorlake>). The lake is fed by three drains from in and around the city, Which add to the increase in pollution level. Monitoring the reduction of toxic elements in the aquatic environment is really important as the indiscriminant outflow of industrial effluents, raw sewage and other toxic pollutants due to various other factors is affecting the survival and physiological conditions of the target organism. One such factor that contributes to the increase of heavy metals in Ulsoor lake is the idol immersions. The study was conducted by studying the abundance of zooplankton in the lake. Zooplanktons are the minute aquatic forms which live in the surface of the water resources. Zooplanktons are the minute aquatic forms which are the trophic link between primary producer and higher trophic level (Ramchandra et al 2014). They usually browse and feed on the substrate attached organic matter or phytoplankton. Zooplanktons later become the food for the fish and other microfauna. Zooplanktons majorly comprises of five groups that include

Protozoans, Rotifers, crustaceans, Cladocerans, Copepods, Ostracods. Zooplanktons are considered as biological indicators as they transfer energy and materials to higher trophic level from primary producers. Combination of low food quality and high predation determines the diversity abundance and seasonality of zooplankton, this is the biotic component (Jose et al 2012). The abiotic factors which include, the physiochemical parameters like temperature, pH, turbidity, BoD, DO, etc effects the zooplanktons (Raut et al 2015). The distribution of zooplankton is regulated by the dispersal and local environmental factors. Zooplankton serves as early warning and pollution indicators as they respond quickly to the alteration of water quality parameters. Certain species of zooplankton also shows dominance in polluted water (Mishra et al 1998).

Study Area: The study was conducted in Ulsoor lake situated in the eastern part of the city and about lakhs of idols are immersed in the lake per week.

Materials and Methods: The study was conducted in the month of September and October in Ulsoor lake. The pre immersion sample was collected before 2 weeks of immersion and post-immersion sample were collected after three weeks of the immersion after the completion of the immersion activities. The samples were collected from three different areas in triplicate from the lake. Quality parameters like pH, BoD, DO, hardness, turbidity, temperature, etc were analyzed. The analysis of the trace materials like cadmium, calcium, chromium, copper, iron, lead, magnesium, manganese, mercury, potassium, etc was done by SHIMADZU AA-6880. Samples were analyzed based on the standard procedures of water analysis based on APHA 22nd edition (APHA 1995).

Collection of zooplankton: Zooplankton analysis was done by collecting samples in the zooplankton net of mesh size 150 μm . Random sampling was done from four sites by horizontally towing the net in the lake. The zooplankton was filtered using netting material and interstitial water was removed using blotting paper. Using the spatula, the zooplankton in the net was transferred into the beaker. The zooplankton collected was preserved in 10% formalin for 10 days. The volumetric method was used to determine zooplankton biomass. The zooplankton was collected in a 125 ml beaker and diluted about 10ml of the sample in watch glass for taking the count. The counting was done under the microscope. Tally marks were made on the sheet when the specimen of a particular group is seen. Proper records were made on the data sheet when the specimen from the subsample was counted. The total number of specimens were determined for the whole sample depending on the counting of the subsample.

The observation was done by phase contrast microscope and compound microscope. The zooplankton observed was identified by the reference of zooplankton manuals and books available online.

Results and Discussions:

Physical properties of lake water before and after immersion.

Ph- Analysis of pH was done by pH meter, the suitability of water is determined by the pH value as it also suggests the toxicity to plants and animals. pH showed only a slight change and it was merely neutral which is regulated by carbon dioxide and bicarbonates. The pH was found before immersion to be 7.37 and after immersion to be 7.33 respectively.

Temperature- Tolerance of aquatic life vary in a wide range. According to season and geographical conditions temperature can vary. So the temperature difference was not much seen.

Turbidity- There was a rapid increase in turbidity which clearly says the increase in the suspended and colloidal matters such as clay, slits inorganic and organic matters. Turbidity also determines the clarity of water by giving an idea of condition and productivity. According to European standards turbidity should not be more than 4NTU. After immersion, there is an increase to 9.84 NTU.

BOD AND DO- There is a decrease in dissolved oxygen which explains the stress the zooplankton and other aquatic organisms has to undergo for survival.

The biological oxygen demand increase in case of after immersion which says the amount of polluting factors in the water has increased it has been observed in Watkar A M et al and Sripathy l et al.

SL/NO:	PHYSICAL PROPERTIES	BEFORE IMMERSION	AFTERIMMERSION
1.	TEMPERATURE	25.9 °C	24.5 °C
2.	Ph	7.37	7.33
3.	TURBIDITY	2.41 NTU	9.84 NTU
4.	HARDNESS	73.4 mg/l	510 mg/l
5.	BOD	9mg/l	11mg/l
6.	DO	6.03mg/l	3.59mg/l

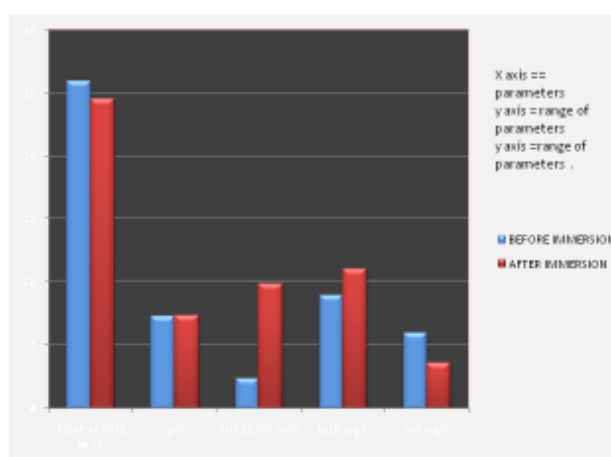


Figure 2

Chemical properties of the lake before and after immersion

Total hardness: There was a huge increase in hardness after the immersion which indicates the presence of multivalent and metallic ions.

Principle hardness causing cations are divalent calcium, magnesium, strontium, and magnesium.

More than 180mg/l is considered very hard and is not suitable for aquatic organisms.

Alkalinity: Weak acids and strong bases are the reason for alkalinity in natural water. Alkalinity shows a positive correlation with hardness.

Calcium and magnesium shows increase after immersion which will add to the increase of hardness in the water. Increase in these heavy metals have proved to be potential carcinogens.

Cadmium and zinc also show a positive increase in it's after immersion, these metals also show the order of toxicity towards the survival rate of zooplankton.

Lead is absent before immersion. Lead even in the smallest trace level is dangerous to the living rate of zooplankton. If entered the food chain it can damage the central nervous system, kidneys, and formation of red blood cells.

In case of lead, the lethal concentration is 0.250mg/l for cladocerans like *Daphnia* so there is no huge decrease in the count of cladocerans as only 0.01mg/l was found.

Figure 4

SL/NO:	CHEMICAL PROPERTIES	BEFORE IMMERSION	AFTER IMMERSION
1.	ALKALINITY	100mg/l	200mg/l
2.	TOTAL HARDNESS	73.4mg/l	510mg/l
3.	CALCIUM	65.28mg/l	440.64mg/l
4.	MAGNESIUM	8.16 mg/l	69.36mg/l
5.	ZINC	0.0142mg/l	0.0756mg/l
6.	CHROMIUM	0.0863mg/l	0.10007mg/l
7.	POTASSIUM	2.7921mg/l	3.0713mg/l
8.	MERCURY	ABSENT	ABSENT
9.	ARSENIC	ABSENT	ABSENT
10.	LEAD	ABSENT	0.01mg/l
11.	CADMIUM	0.01mg/l	0.020mg/l
12.	TIN	ABSENT	ABSENT

Graph showing the chemical properties of the lake before and after immersion

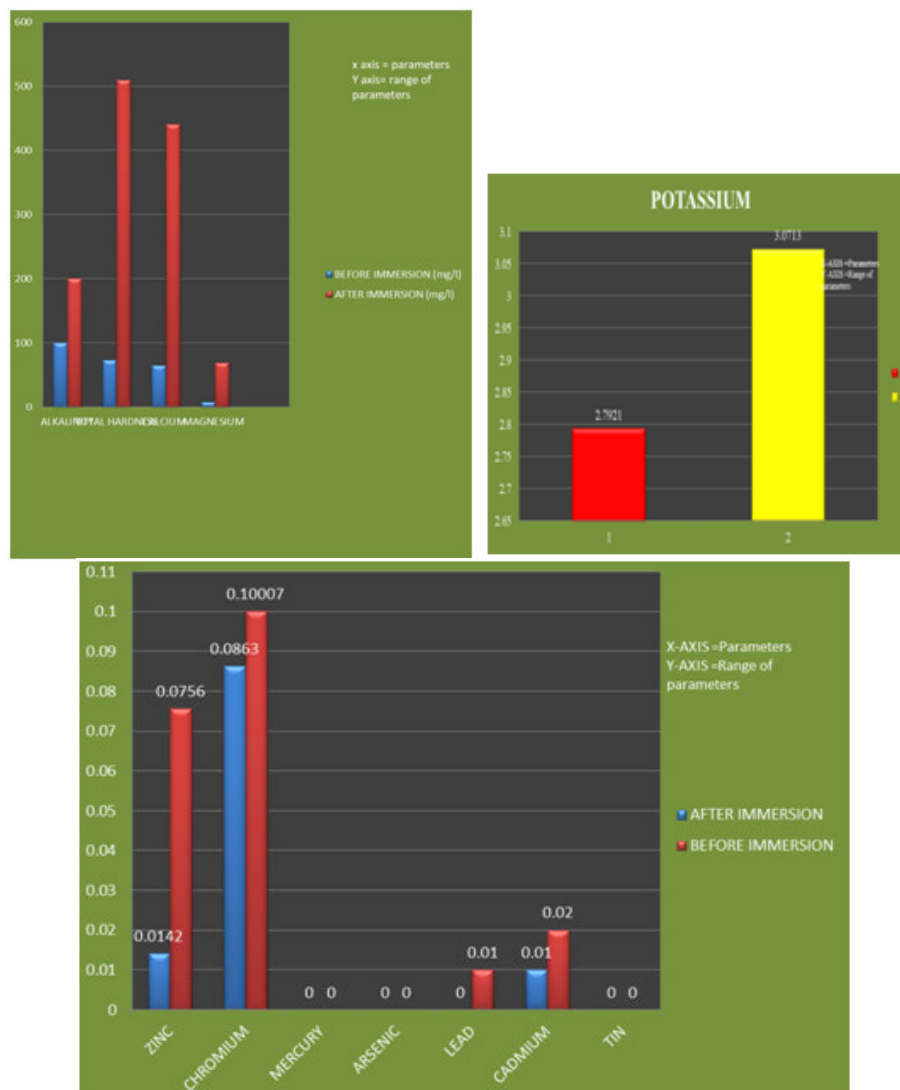


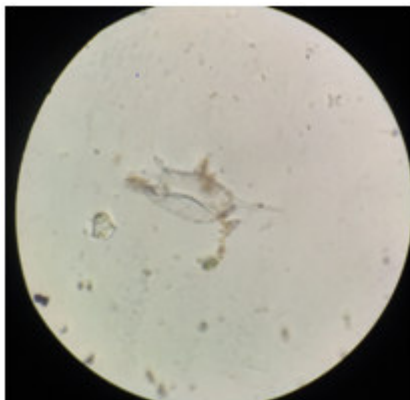
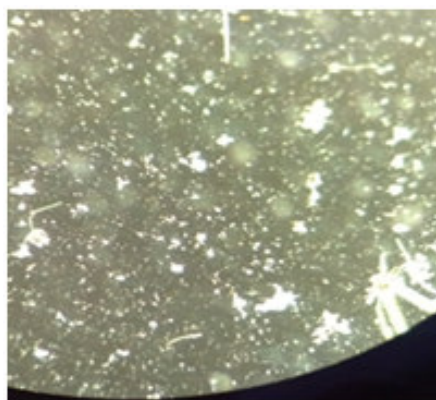
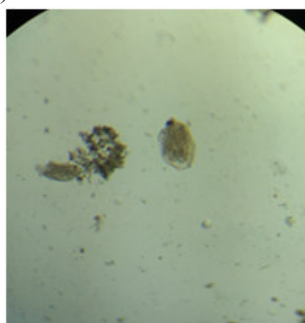
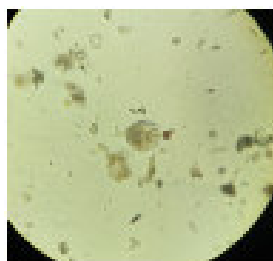
Figure 6, 7, 8
Figures of Zooplankton found



a) *Bosmina longirostris*



b) *Thermocyclops decipiens*

c) *Keratella edmondsoni*d) group of *naupilis*e) *Daphnia*f) *Cephalodella fortificula*g) *Arcella discoides*h) *Brachionus mirabilis*i) *Lecane glypta*

Shannons index was done to find the diversity of species before and

after immersion .

The diversity index of before immersion is H is 2.11779 and after immersion is found to be H is 2.05475.

This suggests the members of the species diversity is less after immersion.

The slow dissipation of idols has resulted in the deterioration of the lake which makes it unsuitable for the survival for the zooplankton.

Count of zooplankton before immersion

<i>Cephalodella fortificula</i>	20
<i>Thermocyclops deripens</i>	10
<i>keratella endmondsoni</i>	15
naupilis	18
<i>Daphnia magna</i>	35
<i>Cephalodella fortificula</i>	16
<i>Arcella discoids</i>	9
<i>Brachionus mirabilis</i>	26
<i>Lecane glypta</i>	17

Count of zooplankton after immersion.

<i>Bosminia longirostris</i>	9
<i>Thermocyclops deripens</i>	5
<i>keratella endmondsoni</i>	8
naupilis	9
<i>Daphnia magna</i>	19
<i>Cephalodella fortificula</i>	10
<i>Arcella discoids</i>	5
<i>Brachionus mirabilis</i>	12
<i>Lecane glypta</i>	8

Discussion: After analyzing the physiochemical parameters it was clearly evident that there is a decrease in the quality of the lake, especially in this one month difference. Even though Ulsoor lake is a sink for sewage disposal the heavy metal increase is majorly seen during the season of idol immersion due to the dissipation of idols and its ingredients.

But another observation is that the zooplankton are being resistant to this stressful condition and are able to survive it. This, in turn, is a challenge, as the heavy metals are slowly magnified in the food chain through bioaccumulation. According to *Asha K Verma et.al.*, the increase of Rotifers are because of their ability to resist zinc and lead ions. The presented order of toxicity for *D. Magna* was $Cu > Pb$. Similar results were made by Milan et

al., (1995) during studies on the toxicity of heavy metals (Cu, Zn, and Pb) on *Daphnia Magna*. The order of toxicity is as follows: $Cu > Zn > Pb$. According to Khangarot et al., (1987) the order of toxicity of heavy metals for *Daphnia Magna* was: $Hg > Ag > Cu > Zn > Cd > Co > Cr > Pb > Ni > Sn$. Hence the resistance to these metals can make it consume these toxic metals and eventually it will enter the food chain by bio-magnification.

There were many steps taken by the government but due to religious sentiments, most of them could not be properly followed. In scientific view, there should be a decrease in the number of idols immersed as in a week as a lake will be accumulated by lakhs of idols which has been immersed. The number increases if immersion happens in a river. Monitoring of the number of idols immersed and restriction to the nonbiodegradable idols are one way to reduce this issue in the future. Another way to mitigate this issue is to use only the tanks provided for immersion but as the number of idols is clumped in the tanks where no more idols can be immersed, the authorities are forced to allow further immersions to the nearby lake premises.

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Effect of various Acid concentrations on seed germination of *Sapindus mukorossi* Gaertn

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Abstract- In the present investigation, an attempt was made to determine the germination efficiency of seeds of *Sapindus mukorossi* Gaertn. Using three different acids in different concentrations viz. 50%, 70% and 100% of H₂SO₄, HCl and HNO₃. 10 seeds were taken for each concentration and treated with the respective acids for 15 minutes each. In the study highest germination was found to achieve in 100% H₂SO₄ and 70% HCl. While treating the seeds with 100% HNO₃ as well as 70% and 50% H₂SO₄ germination was nil. This study will be helpful in establishing the potential efficiency of acid in breaking seed dormancy of this significant medicinal plant with low percentage of germination in natural condition.

Key Words- Germination, H₂SO₄, HCl, HNO₃, *Sapindus mukorossi*

Introduction: *Sapindus mukorossi* Gaertn. commonly known as “reetha” or “soapnut” is a highly valuable medicinal plant of the family sapindaceae. It is a deciduous and a perennial tree which is found usually in various places of tropical as well as sub-tropical climatic regions of Asian continent. The fruit is valued for saponins and has been used as a remedy in China and Japan for centuries. The tri-terpenoids extracted from different parts of this plant are tri-terpenoidal saponins of oleanane, dammarane and tirucullane type (Upadhyaya and Singh 2012).

This oil is used for soap preparation and was found to have good cleaning properties (Karnik *et al* 1971). The oil also contains most valuable phytochemicals like saponins or triglycerides and is given high importance in soap industry (Dev I and Guha 1979). The plant also possesses antimicrobial activity. It is found that the plant material extracted in various media like methanol, ethanol, acetone, cold or hot water found to show antimicrobial activity against some microorganisms like *Saccharomyces cerevisiae* (Joshi *et al* 2010). Joshi *et al* reported invitro antimicrobial activity of *Sapindus mukorossi* against dental carries pathogens.

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Micropropagation of soapnut tree is at a stage of infancy. In vitro micropropagation of *Sapindus mukorossi* tree was carried out by Philomina and Rao (2000) using apical and axillary meristem explants but did not yield satisfactory result. *Sapindus mukorossi* has important significance in the soap industry and social forestry programmes. Therefore, there is an urgent need to develop some efficient in vitro approaches for the propagation of this tree in large scale (Singh *et al* 2015).

Germination is an important and critical phase of species which determines its survival under the influence of ecological conditions. Germination is a physiological response of plants which can be inhibited by seed dormancy. It is affected by both environmental factors and physiological activities. Some plants fail to germinate after harvest even if placed under suitable conditions. This may be due to some internal factors or due to specific requirement for some environmental factors (Abubakar and Maimuna 2013). In natural condition the seeds of *Sapindus mukorossi* show low percentage of germination. Because, the seeds remain suspended and are said to be dormant. In order to break the seed dormancy certain steps has been carried out in this present investigation to meet the main objectives of concern.

Materials and methods:

The mature fruits of *Sapindus mukorossi* were collected from H.K Boruah Botanical garden of Gauhati University. This experiment was carried out in Department of Botany, Gauhati University, Assam, India. For chemical treatment the undamaged and disease free fruits were selected. To get the seeds within, the pulp of the fruits was removed. Seeds were then washed with distilled water. After that they were treated with different concentration of H_2SO_4 , HCl and HNO_3 . For each and every acid type three different concentration were taken (eg: 50%, 70% and 100%).

10 seeds were randomly selected and immersed in different concentration of H_2SO_4 , HCl and HNO_3 in conical flask for 15 minutes. After soaking in acids, the acids were decanted and the seeds were taken out and properly washed with distilled water. They were sown in already prepared seed bed. The seed bed was prepared with soil, sand and cow dung in the ratio of (5:3:2). After sowing, the seed bed was watered in alternate day.

Every day the seed bed was observed acutely to find out the number of sprouting. The number of seedlings and the mean height of the seedlings were also taken in alternate day after the emergence of seedlings.

After the experiment, which was considered to be completed in 28 days and the data were analyzed. In the experiment, calculation was done to determine the percentage of germination, rate of germination and mean germination time following a formula by Mostafavi (2011).

$$GP = \frac{SNG}{SNO} \times 100\%$$

Here, GP=Germination percentage

SNG=Number of germinated seeds

SNO=Number of experimental seeds which are viable to germinate

Seed vigour= germination percentage \times mean seedling height

Germination Index was determined by the following formula (Li *et al.*, 2008).

$$G.I = \frac{n}{d}$$

Here, n= seedling number emerging on day 'd'; d = day after planting the treated seed

Results:

In the experiment the treated seeds were seen to perform better results than the untreated seeds (CONTROL) in terms of germination percentage and height of the seedling. Highest percentage of germination was found in 70% HCl (Table-3). This was followed by 100% H₂SO₄, and 50% HCl (Table-1,3). The highest germination index was found in 100% H₂SO₄, i.e. 0.92 (Table-5). Here in 100% H₂SO₄ total 50% seeds were germinated. While HNO₃ acid treatments showed low seed germination in all concentrations which is even lower than that of the control (Table-2). Therefore, from this experiment it can be profoundly inferred that HNO₃ is not at all useful in breaking seed germination of *Sapindus mukorossi*. In this experiment the untreated seeds were also germinated but took a bit for a longer time of 10 days after sowing and showed a germination percentage of 30 in total 28 days of experiment.

Discussion:

According to the obtained results, HCl 70%, H₂SO₄ 100% and HNO₃ 50% were the most effective treatments for improvement of seed germination properties in *Sapindus mukorossi*. All treatments tested notably improved seed germination. HCl 70% showed the best result in improving germination percentage (Fig 2). This was followed by H₂SO₄ 100% (Fig 1) and HNO₃ 50% (Fig 3). Shoot length of chemically treated saplings was found to be highest in HCl 70% concentration (Fig 4). 100% H₂SO₄ showed highest seed vigour and germination index (Fig 5 and 6).

Hence, from this investigation it can be concluded that the germination percentage of seeds of *Sapindus mukorossi* can be enhanced by treating the seeds with different concentrations of H₂SO₄ and HCl but not HNO₃. This can be helpful in further increasing the number of this species in their natural habitat. This study will be helpful in establishing the potential efficiency of H₂SO₄ and HCl in breaking seed dormancy of this significant medicinal plant with low percentage of germination in natural condition.

Conclusion:

Thus it can be concluded that the acid treatments have significant effect on *Sapindus mukorossi* germination and the best method for breaking dormancy of *Sapindus mukorossi*. The treatment resulted in an increased germination percentage in various concentrations which is upto 50 percent in

70 % HCl in comparison to the control. There is an opportunity to carry out further research on *Sapindus mukorossi* in order to improve the variety and seed dormancy inhibition because this is a multipurpose plant with high medicinal properties used extensively in various pharmaceutical industries. The plant bearing seeds with low germination rate in natural condition can be improved under various acid treatments which will help in large scale seedling development.

Acknowledgements:

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Table-1: Germination percentage (GP)

Acid	Germination percentage (Days)%						
H ₂ SO ₄	10 th	13 th	16 th	19 th	22 nd	25 th	28 th
50%	0	0	0	0	0	0	0
70%	0	0	0	0	0	0	0
100%	30	30	40	40	40	40	40
Control	10	20	30	30	30	30	30

Table-2: Germination percentage (GP)

Acid	Germination percentage (Days)%						
HNO ₃	10 th	13 th	16 th	19 th	22 nd	25 th	28 th
50%	10	10	10	20	20	20	20
70%	10	10	10	10	10	10	10
100%	0	0	0	0	0	0	0
Control	10	20	30	30	30	30	30

Table-3: Germination percentage (GP)

Acid	Germination percentage (Days)%						
HCL	10 th	13 th	16 th	19 th	22 nd	25 th	28 th
50%	0	0	0	0	20	30	30
70%	10	20	20	20	30	40	50
100%	0	10	10	10	10	30	30
control	10	20	30	30	30	30	30

Table-4: Mean comparison of different concentrations of acids on shoot length

Acids and concentrations		Shoot Length(cm)		
		10 th	18 th	26 th
H ₂ SO ₄	50%	0	0	0
	70%	0	0	0
	100%	0.5	11.16	11.6
HNO ₃	50%	0.5	5.0	11.25
	70%	0.6	10.0	13.5
	100%	0	0	0
HCL	50%	0	1.1	6.7
	70%	0.8	3.0	7.1
	100%	0	3.4	9.5
CONTROL		0.5	5.3	7.75

Table-5: Seed Vigour and Germination Index

Acids and concentrations		Seed vigour (in days)			Germination Index
		10 th	18 th	26 th	
H ₂ SO ₄	50%	0	0	0	0
	70%	0	0	0	0
	100%	15	448	464	0.92
HNO ₃	50%	5	100	225	0.39
	70%	6	100	135	0.25
	100%	0	0	0	0
HCL	50%	0	0	201	0.28
	70%	8	60	284	0.67
	100%	0	34	285	0.35
CONTROL		5	159	232.5	0.64



Photo Plate 1 : *Sapindus mukorossi*, A- Fruits, B- Seeds, C- H₂SO₄ Treatment, D- HNO₃ Treatment



Photo Plate 2 : *Sapindus mukorossi*; Germinated seedlings; A- Conc. HCL , B- 70% HCL , C- 50% HCL

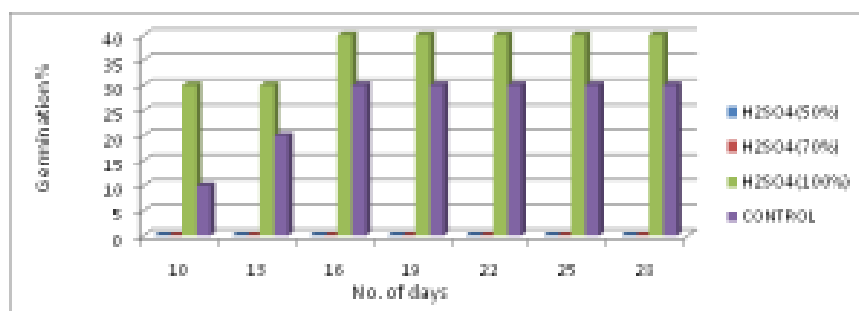


Fig 1: Germination % of H_2SO_4 treated seeds in different concentrations

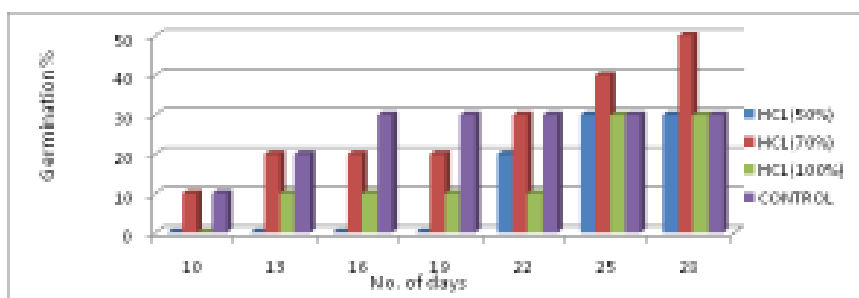


Fig 2: Germination % of HCL treated seeds in different concentrations

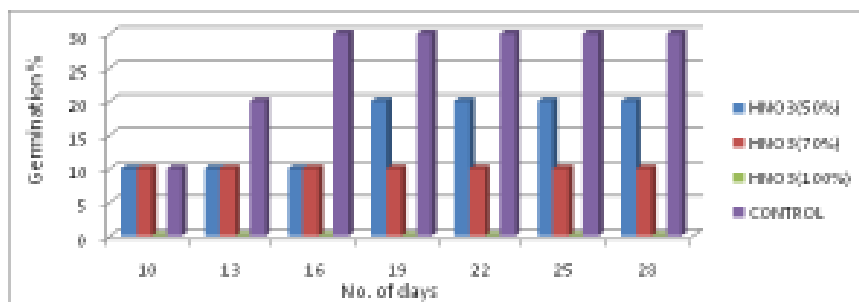
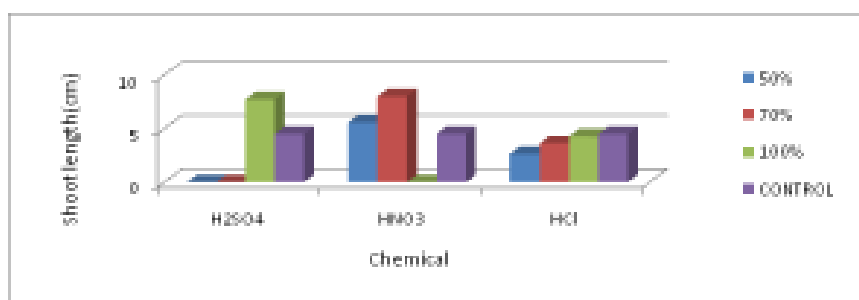
Fig 3: Germination % of HNO₃ treated seeds in different concentrations

Fig 4: Shoot length of saplings treated with different chemicals

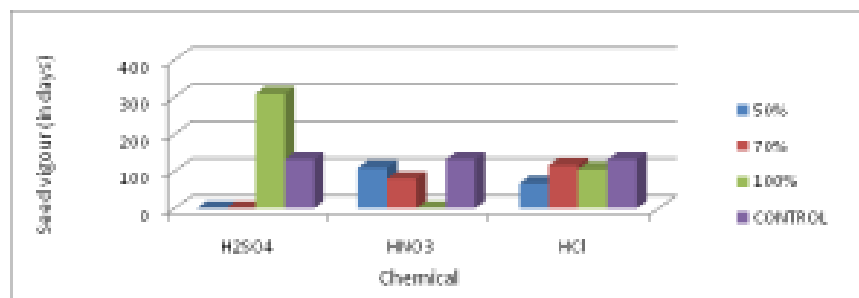


Fig 5: Seed vigour of chemically induced seeds in different concentration

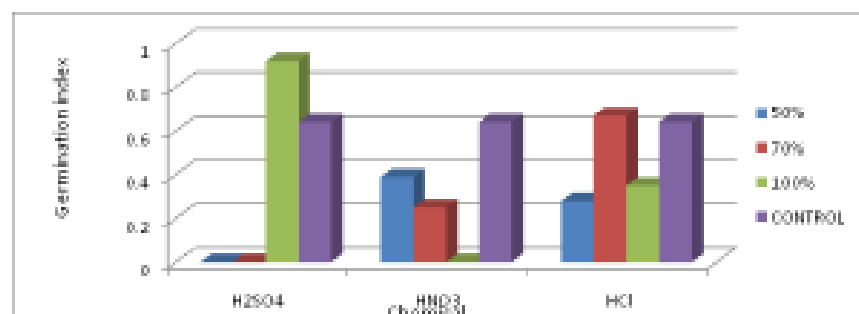


Fig 6: Germination index of chemically induced seeds in different concentration

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Effects of Artificial Destratification on Zooplankton in Govindgarh Lake, Rewa (M.P.)

* Umesh Shukla

Abstract- Govindgarh Lake, Rewa, a 19 ha montane reservoir, was artificially destratified for 1 year. Abundance of cladocerans (collectively) and *Daphnia schødleri* was lower during destratification. Abundance of rotifers (collectively) was lower during winter months and higher during summer months of the destratification year. Abundance of copepods (mainly *Diaptomus* spp.) was not statistically different during destratification. Depth distribution of zooplankton was generally unaffected, but *Diaptomus* spp. tended to occur in deeper water during the destratification year.

Key Words- Govindgarh Lake, Destratification, Zooplankton, *Daphnia schødleri*, *Diaptomus* spp.

Introduction: Lake destratification is becoming an increasingly common tool in attempts to solve certain water management problems. Water quality, particularly with regard to iron and manganese increases or oxygen depletion, can sometimes be improved by eliminating or reducing thermal stratification. The influence of destratification on physical and chemical parameters has been well studied (Bernhardt, 1997¹; Fast, 1998³; Lackey, 2002a⁴), but effects on biological components are poorly defined. Several authors have studied effects on phytoplankton (Bernhardt, 1997¹; Robinson, Irwin, and Symons, 1998⁷), but few quantitative data are available on zooplankton. Riddick (2007)⁶ suggested an increase in zooplankton abundance occurred following destratification, but his sample size was small. Fast (2001)³ showed that zooplankton increased their vertical range after artificial destratification. The purpose of this paper is to describe effects of destratification on zooplankton abundance and depth distribution in Govindgarh Lake, Rewa.

Table:1

Abundance (number/liter weighted by lake volume) of Govindgarh Lake zooplankton during control (C) and treatment (T) years

Group	Year	Abundance													Probability	
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Mean	Sign test	Run test
Chadocera ¹	C	18	1	6	14	3	4	2	10	12	25	16	14	10	0.01	0.26
	T	3	6	3	2	0	1	0	1	12	8	7	4	4		
<i>Daphnia galea mendotae</i>	C	0	0	0	0	0	0	0	0	1	16	10	7	3	0.73	0.37
	T	2	3	2	1	0	0	0	0	11	6	5	4	3		

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<i>Daphnia schodleri</i>	C	15	0	3	5	2	2	1	9	4	4	3	2	4	0.01	0.42
	T	0	1	0	0	0	0	0	0	0	0	0	0	0		
<i>Daphnia juveniles</i>	C	0	0	1	3	0	0	1	2	0	1	1	1	1	0.45	1.00
	T	0	0	0	0	0	1	0	0	0	2	1	0	0		
Copepoda ¹	C	14	6	6	36	36	42	26	14	16	33	20	22	22	0.39	0.07
	T	4	11	10	9	9	9	5	5	9	29	22	24	12		
<i>Diaptomus</i>	C	8	3	4	24	4	2	2	2	6	17	15	12	8	0.55	0.61
	T	3	7	7	4	4	3	1	1	4	15	14	13	6		
Nauplii	C	3	0	1	6	25	12	19	8	4	6	6	4	8	0.15	0.39
	T	0	2	0	0	1	2	1	2	2	14	4	8	3		
Rotifera ¹	C	0	19	110	110	110	60	12	9	5	0	0	1	36	0.55	0.4
	T	0	1	0	8	19	4	2	10	10	70	1	0	10		
<i>Felina</i>	C	0	0	2	19	17	16	3	0	3	0	0	0	5	0.73	0.14
	T	0	1	0	3	8	1	1	10	8	0	0	0	3		
<i>Keratella</i>	C	0	12	35	46	86	40	8	9	0	0	0	0	20	0.07	0.11
	T	0	0	0	0	0	0	1	0	0	69	0	0	6		
<i>Polyarthra</i>	C	0	3	76	45	4	4	0	0	3	0	0	3	12	0.18	0.07
	T	0	0	0	0	1	2	0	0	2	1	1	0	1		

Methods: Govindgarh Lake is a 19 ha montane reservoir Located in northern Rewa (M.P.). Maximum depth is 10 m and the mean depth is 4.4 m. This study consisted of a control year (November 2016-October 2017) and a treatment year (November 2016-October 2018). During the treatment year the destratification system was in continuous operation. Design, installation, and operation of the destratification system has been described by Lackey (2002b)⁵. Limnological conditions during the control year were typical of those for previous years (W. D. Klein, unpublished data).

Zooplankton was sampled at three stations: 1) the deepest part of the lake (10 m), (2) the 6-m contour, and (3) the 2-m contour. During each sampling, 12 liters of water were collected from each 2-m depth interval at each station (3 liters from each 0.5-m depth interval, combined over each 2-m stratum) and filtered through a 75-µm mesh net. Samples were preserved in a solution of 4% formaldehyde. Zooplankton abundance was extrapolated based on examination of at least 4 Sedgwick-Rafter cell samples.

Horizontal differences in abundance between stations were not detected by initial data analysis, so Counts for a given stratum were averaged. From these average values, a lake mean for each taxon was calculated, weighed by lake volume for each 2-m stratum. Sign and run tests were calculated for each taxon (Sokal and Rohlf, 1999)⁸ - A significant sign test indicates that an annual population change has probably taken place. A significant run test means that the data probably do not occur in a random pattern (e.g., winter abundance increased and summer abundance decreased).

Results and Discussion:

Cladocera were significantly less abundant ($P < 0.01$) during destratification (Table 1). Greatest abundance occurred during summer and autumn of the treatment year. *Daphnia galeata mendotae* was absent during the control year winter, but was present in low, but consistent numbers during the treatment winter. Depth distribution of *D. galeata mendotae* was similar in both years with individuals about evenly distributed in the water column. *D. schodleri* was significantly ($P < 0.01$) less abundant during the treatment year. In both years, *D. schodleri* was most abundant a few meters below the

surface in summer and early fall, but in winter highest numbers occurred near the bottom. Juvenile *Daphnia* were not vertically stratified either year. Copepod abundance was not significantly different during the treatment year, but spring and summer abundance decreased, while autumn and winter abundance increased (Table 1). *Diaptomus* spp. followed a nearly identical annual cycle of abundance during both years, but were usually found in deeper water during treatment. Nauplii abundance closely followed the abundance of *D.* spp. Although destratification had no apparent effect on copepod abundance in Govindgarh Lake, Riddick (2007)⁶ noted a four-fold increase in *Cyclops* and *Diaptomus* abundance during summer aeration of a New York lake.

Three genera of Rotifera were common in Govindgarh Lake during the study: *Felina*, *Karatella*, and *Polyarthra* (Table 1). A run test indicated ($P < 0.04$) that rotifers were less abundant during the treatment year winter and higher in the treatment year summer (Table 1). During the control year vertical distribution did not follow a pattern for any genera, and this did not change during treatment.

Although the data presented here are not conclusive, there does appear to be a trend toward a decrease in zooplankton abundance during destratification. Several explanations might account for the decline other than random variation. During treatment, water temperatures were colder than normal in winter and warmer than normal in summer (Lackey, 2002a)⁴ - Such a change in the typical annual temperature cycle may adversely affect zooplankton populations. Lack of water column stability is another factor that might likely cause a decrease in zooplankton abundance.

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Management of Environmental Science Education in Assam

* Mahananda Pathak

Abstract- *Nature is the spirit of creature and Physics is a way of thinking about the basic laws of Nature with their manifestation in different natural phenomena. People have always lived symbolically with Nature and its phenomena such as the Sun, Moon and Earth and also from Rivers, Mountains, Trees and other Animals. This respect and fear of inexplicable on it has had and influence on the relationship between man and nature. This definition of Environmental Science appears on first reaction to be simplistic and superficial but actually it is comprehensive and deep, for it denotes that Environmental Science Education is a medium and process of education and that it covers man's relationship with his natural as well as social and man-made environment, and also it includes the relationship of population, industrialization, pollution, resource allocation and depletion, conservation, transportation, technology, energy and urban and rural planning to the total biosphere. Viewed so, the nexus of Environmental Science is multidisciplinary in character and its quintessence is a commitment on the part of one and all, on the part of all of us inhabiting this planet earth, to prevent deterioration of air, water, land and physical and social environment including inter-relations among people and Environmental science education is the process of recognizing value and clarifying concept in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among man, his culture and his biophysical surroundings. Environmental science education also entails practice in decision-making and self-formulation of a code of behavior about issues concerning environmental quality.*

Key Words- Introduction, Environmental Problems, Objectives, Hypotheses, Methodology, Action plan, Research Problems, Findings, Discussion and Information

Introduction: Science is the organized knowledge about the structure and behaviour of Nature and Physical world, in the sense of general science, biology is based on chemistry and chemistry is based on physics, and also physics based on Nature. Nature teaches us of our surrounding means Environment. We can learn about our surrounding with the help of Environmental Science Education. It is the systematic study of air, water, soil, plants trees, animals

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and socio-cultural development of human well being.

Segments of Environmental Science Education: In Environmental Education system the Environment is basically classified into three categories. They are:

1. **Natural Environment:** This segment includes the natural things like air, water, soil and so on.
2. **Social Environment:** This segment covers the society on which man, the social being, lives from birth to death.
3. **Cultural Environment:** This segment covers traditions, customs, social norms or rules and regulations.

But in this study I had already discussed the following segments or elements of Environmental Science Education, factors that influence living beings, physical standards and socio-cultural Environment with change in Agricultural practices and its effects of development.

Environmental Problems:

1. The first problem is that of the depletion of resources, which are basically two types: Renewable or Non- conventional and Non-renewable or conventional.
2. The second problem is that of controlling environmental pollution which is increasing by and by on account of technological growth.
3. The natural disaster is one of the main problems of Assam, N-E India.

Objectives of the Study:

The environmental science education should be a part of all education. Our proposed study is under taken with the following objectives.

1. To study the environmental degradation, health and socio-economic condition in an around the some areas of Assam.
2. To study the Environmental Science Education how it teaches about real issues that impact our community such as drinking water, indoor and outdoor air quality, habitats improvements, pesticide use and exposure as well as soil and hazardous waste management

Hypotheses: Certain hypotheses were made before the study to set direction, they were:

1. Revolution of Environmental Science Education in Assam has not taken place due to Environmental degradation and proper institutional environment in the state.
2. Social status has no significant difference on environmental attitude of prospective students and people.
3. Prospective students and secondary school teachers do not differ in their levels of attitude towards environment.

Methodology:

To achieve this study the survey method has been adopted. The survey methods have been made on the basis of both primary and secondary data collected with field observation. The primary data have been collected from

the environmentally affected some areas of Assam with the help of one of the NGO named Assam Science Society, Assam and the secondary data have been collected from different sources including Government Publications, Research Journals, and NEAC (National Environment Awareness Campaign) report by the Ministry of Environment & Forests, Govt. of India and other related Publications of corporation bodies with NGO etc.

Action plan due to survey method:

Pedagogic methodology for Environmental Science Education had involved in a scientific manner. For this methodology I had already published number of two books and number of articles with research paper on Environmental Science Education. One of these had published by Jyoti Prakash and the other had published by the Assam State Text Book production and publication corporation limited, Guwahati. The articles and research paper had already published by reputed papers, magazines and research journal, which has ISSN number.

Hypotheses to be tested: The study proposes to test the following hypothesis in the context of infrastructures and environmental development of the district.

1. Revolution of Environmental Science Education in Assam has not taken place due to Environmental degradation and proper institutional environment education in this state.
2. Social status has no significant difference on environmental attitude of prospective students and people.

Research Problems of Environmental Science Education:

Some of the major problems are facing Environmental Science Education in my study. They are:

- i) High dropout rate
- ii) Social constraints
- iii) Difficulty in Assessment
- iv) Lack of scientific inputs
- v) General apathy of the society be it Government officials, politicians or people.

Summary of the findings:

The numbers of respondents in favour of success indicate positive impact of revolution of Environmental Science Education in spite of Environmental degradation in my study area.

1. The percentage of respondent in favour of the little linkage decreases while respondent are found that there is linkage between the Environmental attitude and the General Educational attitude towards the society of the sample student in my study.
2. From this study it was found that Educational status and social status of prospective student with teachers did not differ in their levels of attitude towards Environment.

Discussions:

Various Educational trusts and Institutions have used interdisciplinary and multidisciplinary approaches as strategies of Environmental Science Education. But attempts have been made by superficial educational trusts (SCERT) and Institution have been failed to deliver Environmental Science Education in real sense of terms due to the lack of teacher educators and limited scope of Research and experimentation in Environmental Science Education.

Information:

The teachers with positive and high environmental attitude can only do proper justice to environmental science education among the teacher trainees may improve their levels of attitude towards environment. So that, they can provide better learning in the field of environment to develop knowledge of environment of pupils for our future India.

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