Editorial

Ethnolibrary Science

In early term 'ethno' means local. The activities of culture, science and technology, literature etc. grow naturally in a society by the people of a particular locality in a course of time can be regarded as ethnicity. Ethnicity also refers traditional knowledge. Ethnicity does not reflect under civilised, Ethicity reflects the civilisation that grow with nature, without artificial manipulation. The ethnic knowledge is traditional and practical. There are thousands of ethnic communities in the world who have been continuing their civilisation with profound knowledge of Zoology, Botany, Medicine, textile, agriculture and even in library science. Now a days to find out ways to solve some critical problems ethnic knowledge are followed by modern physicians, scientists etc. There are some diseases, which are not cured by modern medicine, ethnic medicines are found effective. In some cases ethnic technologies provide better product than that of the modern technologies, For instance, the paper produced by the paper mills cannot go beyond hundred years, but the handmade papers produced with the help of ethnic technology valid up to five hundred years. Machine made papers difficult conserve due to its low quality. A 'Sanchipat' can run upto thousand years which is the product of traditional knowledge. At present time, the librarians are confined to collect, preserve and distribution of books or reading materials, but in ancient or medieval time, the libraries were the reproduction centre of books. There were traditional professionals to produce the books in past libraries and this process is still continuing in home ethnolibraries. Now, someone may ask - what are the ethnolibraries? The ethnolibraries are those which are managed by traditional knowledge of library science, or the libraries where ethnoliterature, culture, science and technologies are collected, preserved and disseminated. So, Ethnolibraries are two types- the libraries which are managed by the traditional knowledge and the second, which are the repository of ethnic literature, Music, are scientific knowledge and so on. It is a matter of pleasure that, there are thousands of ethnolibraries in our country run by the rural people. Some of them are developed as research centre equipped with modern technology like digitalization and Internet activity. For instance there is 'Institute of Tai studies and Research' situated at Maranhat of Sivaragar District of Assam. There are Tai Ahom, Tai phake, Tai Khamti, Tai Aiton books in this research institute. More than 5000 such books are digitalised. In many of the satra institution in Assam, there are such libraries, where traditional books are kept and managed by traditional library science. But these ethnolibraries are ignored by some scholars of library science and they try to avoid the

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ethno library science as folklore! But traditional science and technology is not folklore but folk science. When the ethno Botanist, Ethno Zoologists etc. are getting big hands from the science societies, the ethnolibrary science is far behind because of the lackadaisical attitude of such library science scholars. The library researchers of traditional knowledge and libraries are not recognized by such scholars. They are so equipped with computers that they want to throw away the Sanchipat, Tulapat, Talpat, Manuscript etc.! But where from the word library is coined? The word 'Libra' itself is an ethnic Latin word which mean bark of the tree ! So, the library science is outcome of traditional knowledge or ethnoscience. No one can deny traditional knowledge for production, conservation and dissemination process of books. The people who deny Ethnoscience, they deny their fore-fathers.

There was a time when the ethnic people's knowledge or traditional knowledge was not regarded as science. The scientific knowledge of ethnic people came forward after the un-earthed of various medicinal plants used by the ethnic groups. There was traditional knowledge to treat the patients which were found much more effective than the modern medicines. Those plants or sources of medicines were unearthed by the ethnotechnologists. Assimilation of ethno and modern science may create a better culture in our society. Now we are having the ethnobased music, dance etc. which are found very popular and the popularity prompted to establish the ethnolibraries of such music etc. The environmental degradation caused by modern technology has made the technobased society unpredictable. The first growing modern technobased society is now under the big threat due to the environmental menaces. The welfare scientists and sociologists are now luring for Ethno science to find out the ideas to save from the rain of this technobased society. From the point of library science also, there are better opportunities in ethnoscience to long run the libraries. The product of traditional practices of book making can produce such type of books which can be preserved for thousands of years. The conservation practices of the ethnoscience also ecofriendly and long living. So, Ethno library science is still a discipline of need and relevant for present day society. Utility or implementation of the ethnoscience has its philosophical values which are the matters of study in the human society as intellectual duty also. To fulfill the natural curiosity of human being, the ethnoscience is a an interesting discipline to study. Videback and pia (1966) adopted linguistic approach to study ethnoscience. They said "This approach adopted provides simultaneously a point at which the discipline of linguistics or a least some of its general attitudes, may sensibly by used in anthropology and as a means of gaining insight not only into the nature of man but also into the nature of culture." They again said - "understanding the contingencies is helpful in the task of comprehending folk taxonomies on the one hand and on the other, an understanding of the

taxonomy is required for a full scale appreciation of criteria considered relevant in a given culture." Another two scientist perchnock and werner (1986) said - "The new methods, which focus on the discovery and description of folk systems, have come to know as Ethnoscience. Ethnoscience analysis has thus for concentrated on system of classification within such cultural and linguistic domains as colors, plants and medicine." According to them an ethnoscientific approach can be used to better understand a given culture and their knowledge of their culture."

In Ethnoscience we get prime three ingradients. Those are from the point of social science, pure science and technology. The study theory and practices of Ethnoscience are now going to un-Earth many valuable for intellectual property of the ethnic people. According to the intellectual property right act, the concerning groups of such ethno science can enjoy such intellectual property. They are now under the patent right act. No one can use, such knowledge without giving fee against such knowledge. There are ethnic people in many countries who have been running very peaceful life with the help of such know ledge without borrowing from the modern science. They have their own life style own philosophy, culture and so on. They have been continuing their civilisation as their own way. The life style of some ethnic people were found healthy, peaceful and civilised instead of the back of modern education or technology. Such types of the groups are studied in various countries by the sociologists, zoologists, botanists, physicians etc. and ultimately they evaluated the knowledge used by ethnic groups in their life as scientific knowledge. The modern civilised intellectual society recognized the traditional knowledge of ethnic people as important as the knowledge of technobased society. The ethnic people who lived in a particular locality had enough knowledge of Geography, Botany, Zoology, Oceangrophy, materology, transporation, Biodiversity and so on. They had knowledge to control the animals or Biocommunities available in their area. They run their own life style based on traditional knowledge. Their knowledge was natural and experienced generation after generation. They earned knowledge from their day to day activities. There were traditional schools or academic institutions to transfer knowledge to the upcoming generation. The professional skills were acquired by the young ones from their fore fathers by participatory involvement. For instance a blacksmith earned knowledge how to temper the iron from his father. An weaver earned knowledge how to weave was from her mother. The scientific knowledge of traditional textile of the North east ethnic groups was fabulous. They had knowledge how to control past in the agricultural field. They had enough knowledge on weather or materology and run their agro-activities based on that knowledge. The traditional knowledge of fine arts and music of the ethnic people are great due to the increasing popularity of such ethnomusic, arts or culture, the

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ethnolibraries of the books, E-books, musical cd etc. are grown up. So, the science of conservation or science of library mangement also available in the ethno-science.

Ethnoscience : Ethnoscience started to move to the light of scientific society between the year of 1960 to 1965. The word 'Ethno' is a combining form to mean the 'Race', 'Culture', 'People'. The 'science' involves in the empiric observation of measurable quantities and the testing of hypotheses to nullify or prove true. According to videbeck and pia "Ethnoscience refers to the system of knowledge and coginition tipical of a given culture to put it another way a culture iteself amounts to the sum of given society's its particular ways of classifying its material and social universe'' According to Auge (1999) ethnoscience has been defined as an attempt to reconstitute what serves as science for others, their practices of looking after themselves and their bodies, their botanical knowledge, but also their forms of classification of making connections etc."

According to scot and Atran (1991) ethnoscience looks at culture with a scientific perspective. It helps to understand how people develop different forms of knowledge and beliefs and focuses on the ecological and historical contribution people have been given. Tim ingold (2000) describes ethnoscience as being a cross discipline. According to his opinion ethnoscience is based on increased collaboration between social sciences and humanities (for instance anthropology, sociology, psychology and philosophy) with natural sciences such as biology, ecology, etc. At the same time ethnoscience is increasingly trans disciplinary in its nature.

Some social scientists define ethnoscience in the term of 'enculturation'. Social scientist Marvin Harris writes – enculturation most important technical expressions is the doctrine of 'psychic unity', the belief that in the study of socio-cultural differences, hereditary or genetic differences cancel each out, leaving experience' as the most significant variable. According to Harries there is a mild conflict between ethnic beliefs hinder and affect the progress of anthropology and ethnography. Buronislaw malinowski, one of the great scholar of ethnoscience was mute because at the time of world war - I, but he branched out to political evolution during world war - II, He experienced that the ethnic science could be used to solve some social problems or the ethnoskills could be applied to problems that were affecting modern societies. He focused on a family in Australia and said "watch his tables of kinship terms, genealogies, maps, plans and diagrams proves an extensive and big organization, shows the contribution of tribe, of the clan of the family and he gives a picture of the natives subjected to a strict code of behaviour and good manners, to which in comparison of the life. Nigerian schoolar Robin Horton considered ethnoscience as incorperated within conceptual world views that bear certain similarities to and differences from the modern scientific world view. Traditional thought also

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provides a theoretical structure like the modern science. As per his view in contrast to modern science he saw traditional thought as having a limited awareness of theoretical alternatives, and, consequently displaying an absolute acceptance of the established theoretical tenets." Ethno science is the knowledge input in a cultural system from time immemorial in structured order which are having high utility value in present technobased society also. Ward Goodnough who struggled to lead ethnoscience to the stage defined cultural system of knowledge as follows - "A societic culture consists of whatever it is one has to know or believe in order to operate in a manner acceptable to its members. Culture is not a material phenomenon; it does not consist of things, behaviour or emotions. It is rather than an organization of these things. It is the form of things that people have in mind, their models for perceiving, relating and otherwise interpreting them". But Ethnoscience is not state. It is as dynamic as the modern science, but due to lack of institutional approach the process slow, but natural Ethnoscience grows like a tree, not like a city.

Modern scientists of various disciplines has taken ethnosciecne as an area of research to un-earth already used but unknown theory, practices, know-how etc. which is fit to present day context. To overcome side affect of modern science and technology the modern technobased societics are now hunkering after alternatives and the ethnoscience has open up the door for such alternatives.

The concept of ethnolibrary science is prompted by the knowledge society for better management and better conservation of our traditional knowledge. The librarians should welcome this concept to uplift their skills and to enrich the discipline of library and information science. Already the establishments of ethnolibraries have created the new era of use of traditional knowledge in library management or knowledge management. The improved societies have been enjoying the services of the ethnolibrarians with great gratitude. But those who are still hesitating should come forward towards traditional knowledge otherwise they may have to lost this brainstorming knowledge source.

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Crisis of Conscience and Criminalization of Politics in Contemporary India:
A Case Study of 15ᵀᴴLokSabha

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Abstract:

In more ways than one, India stands at a crossroads today in its seventh decade since independence. The representative form of democracy in India has failed to deliver at numerous fronts. The heightening moral vacuum and ethical degradation seems to have touched grave floors in recent past with increasing cases of crime and corruption by our democratically elected leaders. From coffin for dead soldiers to Common Wealth Games, Coal Mines and from 2G Spectrum to VVIP Helicopters Deals – there have been scandals galore and the crisis of conscience is more than evident to the common masses. One by one the crony capitalism that has come to pervade the Indian liberalisation story is being revealed for what it is.

The unparalleled legacy of political leaders like Gandhi, Nehru, Ambedkar, Shastri etc. has not been replaced by conscientious political leadership so far. Gone are the days when ministers used to resign on issues like Hindu Code Bill (demanding greater rights for women), or resigning on the moral call(s) taking ethical responsibility for train accidents and similar mishaps. Such is the moral degradation that politicians are forced to give their DNA samples by judiciary or Positions of high repute like RajyaSabha Vice – President have also reached to doldrums in charges as severe as gang – rape. Attempts by the opposition, for character assassination of the political leader in concern, has become the phrase most abundantly used / misused in contemporary Indian politics. As per Election Commission records as much as 40% of elected members in 15ᵗʰLokSabha have criminal Background. Some other inherent flaws in our democratic system like 'First pass the post' for elections and 'Golden Rule of Criminal Law' provide sufficient space and opportunity to the money and muscle power to prevail in our Electoral democracy. In on-going 15ᵗʰLokSabha there are 162 elected MPs who have declared pending criminal cases according to their self-declared affidavits. Out of these, there are 76 MPs having serious cases against them. Nonetheless, the situation is not all grim as it might have appeared from the discussion above. With number of positives like record turn-out of 93% voters in recently concluded ninth Tripura Assembly elections (February 14, 2013) – the strong roots of democratic values continue to prosper in India.

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With a two-fold approach, on conceptual clarity and factual evidence, the paper aims to describe the issue in detail with an added emphasis on its consequences viz. lack of credibility and rampant corruption in public domain. In an attempt to highlight the practical remedies the paper also takes an analytical view towards the measures undertaken (on the behalf of Election Commission and Supreme Court of India, primarily) acknowledging the fact that "WE, THE PEOPLE" deserve far better than what we have now. With this background, the paper also underlines the implications for future research and practice.

Introduction:

Background: Morality in Politics

Ethics and morality have been the hallmark of public life in India since ancient times. Rulers were expected to observe stricter ethical values and an unethical king was shown no mercy. Ethics and politics, in other words, were inseparable. This ethical and moral legacy was inherited by its national leaders, who demonstrated a high degree of probity and honesty in public life during the freedom struggle led by Mahatma Gandhi, who himself was an embodiment of this tradition. He not only preached morality in public life but also practiced it. He believed that politics without morality is a thing to be avoided. However, in recent years there is a general feeling that all is not well with the Indian political system which is functioning under great strain. Concerns are being expressed over the general decline of values in public life. Recent trends in politics, however, appear to have created an impression as if; the capacity of our democratic system to ensure probity in public life is increasingly going down.

Such a situation does not augur well for the future of democracy and needs to be arrested immediately. Under the influence of market forces viz. liberalization-globalization and materialization there has been general erosion of moral values in all walks of life. Role of people's representatives, who are largely responsible for guiding the system in such a situation, therefore, becomes very critical. Members of Parliament as people's representatives are looked at by the people as their role models and the ones who are guiding their destiny, have, therefore, to be beyond the realm of any kind of suspicion. By and large, the ideological base and the spirit of service which should activate most of them is getting eroded and the kind of elements who are trying to influence the political parties and the political system at large, make everybody think as to how probity in the entire system could be ensured. There may be many ways for ensuring probity in public life, but a self-disciplining mechanism, appears to be the best in an institution like Parliament.

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Overture:

Criminalization of politics literally refers to the criminals entering the election fray and contesting elections and may even get elected to the parliament and state legislatures. It takes place primarily because of the nexus between the criminals and some of the politicians where the criminals need the patronage of the politicians occupying public offices to continue with the criminal activities and the politicians need the money and muscle power that the criminals can offer to politicians to win elections.

In course of time with increasing focus on "winability" and strengthening impact of "cash-caste-& crime" equations for acquiring and retaining power the trend has further popularized. Further the nexus has motivated and set platform for criminals themselves to contest and win elections thereby enjoying the legitimate authority through illegitimate means and manner.

Rationale:

Criminalisation of politics has become an issue of grave concern among the Indian intelligentsia. And though the top leaders of all political parties agree that those with criminal record should be debarred from contesting elections, the number of such people is only increasing. In 2004, about one in five MPs had a criminal record, including some with charges of heinous crimes such as murder, rape, dacoity and kidnapping. The situation has further aggravated in 2009 lokSabha Elections and hence the paper offers a re-visit and reflection to a much talked about but least acted upon issue pressing for a systemic change.

Methodology:

The paper has been largely based on the analysis of factual evidence furnished by National election Watch and the Association of Democratic Reforms. In addition the paper also makes an original attempt to underline the measures undertaken by the supreme court of India and the election commission in the background of national events in this domain since 1990s.

The paper is largely descriptive and analytical of current scenario at the national front, measures undertaken and need of the hour to address the same. The paper also offers a re-visit and reflection on the argument regarding framed/fake charges against politicians/individuals in focus and thereby presses for prompt action rather than prolonged thought.

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Factual evidence:

15thLokSabha MPs: An Overview of Criminal cases

There are 162 newly elected MPs who have declared pending criminal cases according to their self -declared affidavits. Out of these, there are 76 MPs having serious cases against them. Here is the high level summary of the CURRENT LokSabha:

- Affidavits available for MPs - **543**
- MPs with pending criminal cases - **162 (29.83 %)**
- MPs with serious pending criminal cases - **76 (14.00 %)**
- Total pending criminal cases against MPs - **522**
- Total serious IPC sections against MPs – **275**

As compared to 2004, the number of MPs with pending criminal cases has gone up. There were 128 MPs with pending criminal cases against them in 2004 LokSabha out of which 58 had serious pending criminal cases. There is an increase of about 26% in MPs with pending criminal cases and 31% increase in the number of MPs with serious pending criminal cases. There however is a decrease of about 7% in the number of serious pending criminal cases on these MPs.

	2004	**2009**	**increase**	**% increase**
MPs with pending criminal records	128	**162**	**34**	**24.56 %**
Total Pending criminal cases	**429**	**522**	**93**	**21.68%**
MPs with pending serious criminal cases	**58**	**76**	**18**	**31.03%**
Total Serious cases against MPs	**296**	**275**	**-21**	**-7.09%**

Comparison of serious cases between LokSabha 2004 & 2009

Comparison of nature of serious crime between LokSabha 2004 & 2009 shows that number of serious cases has reduced from 2004 to 2009. There has been reduction in number of violent crimes (cases related to murder, dacoity, kidnapping etc), forgery, theft and cheating. There has been an increase in number of other crimes like false statements under oath, promoting enmity between different groups, false evidence etc. The complete analysis is given in the table below-

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	Violent Crime	Forgery	Theft	Cheating	Other crimes	All serious crimes
2004	167	66	17	34	12	296
2009	136	50	12	35	42	275

15thLokSabha: MPs with Pending Criminal Cases- Party Wise

Given below is the party wise analysis of MPs with pending criminal cases. More the number of MPs of a party in LokSabha; means more the number of MPs with pending criminal cases. Out of 206 MPs of INC 44 have pending criminal cases and out of 116 MPs of BJP 44 have pending criminal cases against them.

Party	Total	MPs with Pending criminal Cases	Percentage of MPs with Pending criminal Cases	MPs with Serious Pending criminal Cases	Percentage of MPs with Serious Pending criminal Cases
BJP	116	44	38%	19	19%
INC	206	44	21%	13	13%
SHS	11	9	82%	3	3%
SP	23	9	39%	8	8%
JD(U)	20	8	40%	3	3%
BSP	21	6	29%	6	6%
BJD	14	4	29%	1	1%
AITC	19	4	21%	4	4%
NCP	9	4	44%	3	3%
ADMK	9	4	44%	4	4%
DMK	18	4	22%	1	1%
RJD	4	3	75%	2	2%
CPM	16	3	19%	1	1%
RLD	5	2	40%	1	1%
JD(S)	3	2	67%	1	1%
JMM	2	2	100%	2	2%
TDP	6	2	33%	1	1%
MDMK	1	1	100%	0	0%
AIMIM	1	1	100%	1	1%
VCK	1	1	100%	1	1%
SAD	4	1	25%	0	0%
IND	9	1	11%	0	0%
TRS	2	1	50%	0	0%
AIFB	2	1	50%	1	1%
JVM	1	1	100%	0	0%
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Analysis Based on Assets:

In the following pages analysis for MPs based on their assets has been given. A comparison of number of crorepati MPs in 2004 & 2009 LokSabha shows that the number of crorepati MPs has increased 102% this time. Similarly the average wealth of a MP of LokSabha 2009 is 186% more than their counterparts in LokSabha 2004.

	In 2004 LokSabha	**In 2009 LokSabha**	**Increase**	**% Increase**
Number Or Crorepatis	156	315	159	102%
Avg Assets Of An MP	1.86 Cr	5.33cr	3.46 Cr	186%

Increase in Assets of MPs between 2004 and 2009, As Per Their Own affidavits

There was a huge increase in the assets of the MPs of 2004 as reflected by their own declarations in the affidavits that they submitted during 2004 and 2009. The following table summarises these findings:

No of MPs from LokSabha 2004 who re-contested and their details available for both 2004 and 2009   304
The   average   assets   for   these   re   contesting   MPs   as   declared   in   2004 Rs 1.92
The   average   asset   for   these   re   contesting   MPs   as   declared   in   2009 Rs 4.8 Cr
Average   asset   growth   for   these   re   contesting   MPs Rs 2.9 Cr
Percentage   growth   in   assets   for   these   re   contesting   MPs 289%

15ᵗʰLokSabha: Crorepati MPs- Partywise:

There are a total of 315 crorepati MPs in the current LokSabha. The trend of high wealth MPs is seen across the party line.

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Party	No of all MPs	No of crorepati MPs	% of crorepati MPs
INC	206	146	71%
BJP	116	59	51%
SP	23	14	61%
BSP	21	13	62%
JD(U)	20	8	40%
AITC	19	7	37%
DMK	18	13	72%
CPM	16	1	6%
BJD	14	6	43%
SHS	11	9	82%
NCP	9	7	78%
ADMK	9	5	56%
IND	9	3	33%
TDP	6	3	50%
RLD	5	4	80%
SAD	4	4	100%
RJD	4	2	50%
JD(S)	3	3	100%
JKN	3	2	67%
TRS	2	2	100%
MDMK	1	1	100%
SDF	1	1	100%
HJCBL	1	1	100%
AUDF	1	1	100%

15thlokSabha: Crorepati MPs – Statewise:

Maximum number of crorepati MPs are from Uttar Pradesh (52, i.e. 65%) followed by Maharashtra (38, i.e. 79%). There are several states where ALL the MPs are crorepatis:

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State/UT	No of MPs from State	No of crorepati MPs	% of crorepati MPs from the concerned state
Uttar Pradesh	80	52	65%
Maharashtra	48	38	79%
Andhra Pradesh	42	32	76%
Tamil Nadu	39	25	64%
Karnataka	28	25	89%
Bihar	40	17	43%
Madhya Pradesh	29	15	52%
Rajasthan	25	14	56%
Punjab	13	13	100%
Gujarat	26	12	46%
West Bengal	42	11	26%
Haryana	10	9	90%
Nct Delhi	7	7	100%
Jharkhand	14	6	43%
Orissa	21	6	29%
Assam	14	5	36%
Kerala	20	5	25%
Uttarakhand	5	4	80%
Chhattisgarh	11	3	27%
Himachal Pradesh	4	3	75%
Jammu & Kashmir	6	3	50%
Arunachal Pradesh	2	2	100%
Dadra & Nagar Haveli	1	1	100%
Chandigarh	1	1	100%
Puducherry	1	1	100%
Daman & Diu	1	1	100%
Goa	2	1	50%
Lakshadweep	1	1	100%
Meghalaya	2	1	50%

Causes and concerns:

Primary causes:

a) An inbuilt delay in criminal justice system which takes an average 15 years for a criminal case to be finally disposed of by the court provides great insulation to people with criminal background in politics.

b) Further the golden rule of criminal law on which entire criminal justice system is based provides that the accused is presumed innocent till proved guilty therefore when the accused is convicted & sentenced by a trial court, it simply appeals to

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the higher courts , hence the conviction and sentence are suspended by higher court till it disposes off the appeal. Thus the convicted becomes innocent once more in the eye of the law and is not prohibited from contesting elections.

c) Moreover the rate of conviction in our country has been going down significantly which means more and more criminals go unpunished as their guilt is not proved beyond reasonable doubt in a court of law.

d) The first past the post electoral system which is followed in the elections to the lokSabha and the legislative assemblies allows a candidate to be declared elected from a constituency on the basis of plurality and not majority of votes polled. Thus in a multi cornered contest, a candidate with as low as 25-30% of valid votes polled get elected, which a criminal does not find difficult to get with the use of his muscle and money power.

e) Failure to enact electoral reforms suggested time to time by various expert groups and committees.

f) The political parties are also guilty of not following value based politics which combined with declining value system in society has also contributed in growing criminalisation of politics.

g) Growing focus on identity politics and other parochial practices in political discourse.

h) Marketization of politics and direct entry of business houses in the domain of electoral politics in India.

Consequences:

a) Sharp decline in credibility of politics and politicians among common masses.

b) Declining efficiency of legislature in formulating strong and effective laws.

c) Deteriorating status of law and order in the country.

d) Circulation of unaccounted money during and after elections diluting the probity in public life.

e) Weakening of state institutions with increasing levels of corruptions in the executive, legislature and the judiciary.

f) Introducing a culture of violence in the society and hence setting a bad precedence for the youth to follow.

Major committees and recommendations:

Taking cognizance of these serious shortcomings and their consequences several commissions came up with the proposal for reformation of electoral process in india including –

- Goswami committee on electoral reforms 1990
- Vohra committee report 1993,
- RajyaSabha Ethics Committee 1997,
- Indrajit Gupta committee on state funding of elections 1998,
- Law commission report on the electoral laws 1999,
- National commission to review the working of the constitution 2001.
- Verma committee Report 2013, Etc.

 A short detail of few landmarks among these stand as:

Vohra Committee: A Precursor

It was in this backdrop and amidst alleged charges of corruption involving politicians and general perception of criminalisation of politics, that the government of the day appointed on 9 July, 1993, a Committee headed by Shri N.N. Vohra, the then Home Secretary, Government of India, to take stock of all available information about the activities of crime syndicates/mafia organizations who allegedly had developed links with and were being protected by some Government functionaries and political personalities. The Committee after considering the matter presented its report to the Government of India which laid it before both Houses of Parliament on 1 August 1995. The report was discussed in the Houses of Parliament on 8, 23 and 24 August, 1995.

The Committee in its report, inter alia, pointed out that "the nexus between the criminal gangs, police, bureaucracy and politicians" had come out clearly in various parts of the country. The existing criminal justice system, which was essentially designed to deal with the individual offences/crimes, was unable to deal with the activities of the mafia; the provisions of law in regard to economic offences were found to be weak and there were insurmountable legal difficulties in attaching/confiscating the properties acquired through mafia activities. The report suggested setting up of a nodal agency under the Ministry of Home Affairs, Government of India, to be handled directly by the Union Home Secretary, who would be assisted by one or more selected officers of the Ministry for the collation and compilation of all information received from different intelligence agencies.

RajyaSabha Ethics Committee:

Setting up of an institution like Ethics Committee was, in fact, a significant event in the history of Indian parliamentary democracy. Such Committees are functioning only in a few countries of the world and with the setting up of this Committee here; India also has joined the group of these select countries. Ethics Committee, RajyaSabha consists of ten members, including its Chairman, who are nominated by the Chairman, RajyaSabha. Chairman of the Committee is from the largest party in the House. Other members normally are the Leaders, Deputy Leaders/Chief Whips of their parties/groups in RajyaSabha. Commenting on the fact that leaders of parties/group are made members of the Ethics Committee, ShriK.R.Narayanan while inaugurating the Committee on the 30 May, 1997 said: By choosing the leaders of parties as Members we have tried to invest the Committee with prestige and influence. In this way we have also sought to forge a link, though indirectly and informally, with the political parties all of whom are intensely interested in maintaining the highest ethical standards in our parliamentary life. This, indeed, is a common platform on which all of us can meet together to sustain the high standards of the august institution of Parliament.

Justice Verma Panel: Cleanse politics, bar the tainted

Justice J S Verma panel has recommended changes not just in laws but sought to alter the profile of lawmakers elected to Parliament and state legislatures. In a slew of suggestions aimed at stemming criminalization of politics, the committee has proposed amendments to the electoral laws to enable disqualification of tainted MPs/MLAs upon a court taking cognizance of certain offences against them, or if an elected representative furnishes a false affidavit at the time of filing his nomination.

Election commission initiatives:

a) In August 1997 the election commission directed all the returning officers to reject the nomination papers of any candidate who stands convicted on the day of filing the nomination paper even if his sentence is suspended.

b) Use of electronic voting machine against electoral malpractices viz. booth capturing, rigging and smuggling of ballot papers.

c) Model code of conduct as a set of guidelines formulated in consultation with the major political parties of the country since 1985. From the announcement of

election schedule (normally 3 weeks before election notification) to announcement of official results, It takes care of the following:

- Transfer matter of civil servants related to election duties,

- Prohibition of announcement of welfare measures in proximity to elections,

- Prohibition of use of state machinery by ministers and legislators,

- Supervision over parochial factors

d) The election commission has made following recommendations to the union government to be made into law in the form of electoral reforms for the decriminalization of politics:

   (i)   If a person is accused of a serious crime (i.e. where a law prescribes a punishment of not less than 5 years for the alleged crime), and if a court of law has framed criminal charges against the accused then it should be regarded as a reasonable ground for the disqualification of the accused for contesting elections. The election commission is of the opinion that framing the criminal charges by a court means that the court prima facie believes that the accused might have been involved in the alleged crime.

   (ii)   If a person is found guilty by a commission of enquiry then he should be disqualified from contesting elections.

   (iii) The first past the post electoral system should be replaced by the 2 ballot system under which a candidate is declared elected from a territorial constituency on the basis of majority principle.

   (iv)   Along with the 2 ballot system the negative vote system shall also be introduced. Under this system the voters will enjoy the right to reject the candidate(s) by choosing an additional option- none of the above- provided in the ballot list.

Supreme Court measures:

a) The Supreme Court in Union of India vs. Association for Democratic reforms 2002 case has held that the voters enjoy the right to make informed choices during elections. It directed the election commission to make it mandatory for the contesting candidates to declare following at the time of filing nomination papers:

- assets and liability along with their spouse and dependent children,

- any criminal conviction in a court of law,

- any criminal case pending against them,
- The education qualification.

b) Ramesh Dalal VS. Union of India 2005: the Supreme Court held that a sitting member of the parliament or a state legislature shall also be subject to disqualification from contesting elections if (s) he is convicted and sentenced to not less than 2 years of imprisonment by a court of law.

c) In 1997 Supreme Court directed high courts to not suspend the conviction of a person if he is convicted and sentenced under Prevention of Corruption Act 1988.

d) From time to time Supreme Court has announced guidelines and instructions with regard to state funding of elections to ensure a fair and level playing field to all political parties.

e) The parliament *served the nation* by introducing section 33-B in Representation of people Act 1951 under which a person had to declare his/her assets & liabilities only before the presiding officer of the house within 90 days of being elected as a member of the house.

   The Supreme Court struck down section 33-B as unconstitutional and Void on the ground that it violated the Fundamental Right of the citizens to make informed choice under article 19(1)(a).

Discussion: need of the hour

"No matter how fine we slice there will always be two sides"

Prima facie the topic seems to be one sided where no one can agree nor wish to agree on any probability of accepting the nexus between criminals and politicians in a liberal democracy like India. But as we dwell deeper the points of difference start augmenting. At one hand all the individuals and parties in one voice oppose for any such situation where criminals dictate and dominate the electoral democracy on the other hand true diplomacy exhibits when question of actual practice come in the scene. Many a times the vital debate arises on the issue of formed/fake charges or attempts of character assassination, by the opposition party/class, of the politician/individual concerned. There is no negation to the frivolous charges but more often than not the same works as a shield to an actual criminal.

It further strengthens the general understanding that there is nothing in social sciences which is direct and absolute and hence the solution in social sciences more often than not lies somewhere in the middle. Despite the commendable measures undertaken by Institutions like

Supreme Court or election commission the situation continues to be grim. The nexus of cash-caste and crime strengthens and the common masses continue to suffer. There are numerous instances all across country when DSPs are killed brutally in public with politicians involved and women are insulted and raped all across the nation and many others. In such a situation there is a pressing need for the intelligentsia to decide and practice a path which is more balanced in its composition and less time taking in its effect.

Concluding remarks:

"Sixty five years after winning independence, India waits to be free again. To be freed from criminals who have muscled their way into power and policy making"

There is no doubt that the largest democracy in the world faces one of its gravest challenges as reflected and highlighted from the data and discussion above. Nonetheless, the situation is not all too grim as it might have appeared from the discussion above. With number of positives like record turn-out of 93% voters in recently concluded ninth Tripura Assembly elections (February 14, 2013) – the strong roots of democratic values continue to prosper in India.

The reform is a gradual process and in a vast and diverse country like India its slow pace can be well understood. There is slow but continuous realization all around with certain and timely support and initiatives by supreme court, election commission and a few conscientious leaders with the ever glowing precedence of our earlier freedom fighters and political leaders viz. Gandhi, Ambedkar, Nehru, Shastri, Rajendra Prasad etc. Never the less there is no exaggeration when one says:

There can be no negation that the makers of our constitution were quite aware of such possibility and hence they have made provisions for debarring a criminally convicted person from contesting elections but the huge burden of pending cases with judiciary and lack of transparency and unthinkable moral degradation of political class has crossed their limit to fore see the challenges of the current situation. Hence need of the hour cries for debarring all persons with criminal charges from contesting elections. It may well hinder the fundamental rights of a few to be heard and deemed innocent till proved guilty. But for the common good of masses a few of such individual rights may well be compromised, after all "We, The People" deserve far better than what we have now.

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Environment and climate changes

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Abstract:

Due to the factors like deforestation, pollution, natural calamities etc, the climate of the world has been drastically changed. This changing climate is a big problem for the living beings on the Earth. We, the people should take effective measures to control such changes; otherwise the Bio-communities may have to face much more problems in near future.

Introduction:

Environment is composed by some biotic and abiotic components. All components in the nature without life are grouped under abiotic components. Thus, air, water, soil, sunlight, temperature, rainfall, moister and other non-living components that influence our life fall under the category of abiotic components. When we talk about the change of climate due to the changes of environment, it comes under the non-living components (abiotic) of the nature.

The mixture of gases which refers to air, coats the atmosphere plays a vital role in the environment. We cannot imagine without air that the main basis of life. We inhale oxygen for life and discharge nightrider that which is important for food preparation and growth of plants. Carbon, hydrogen dioxide oxygen and nitrogen are gases in our atmosphere that are the principal elements of food items that we consume. Air flows from place to place and carries the clouds along; in turn gives us rainfall and maintains temperature. The ozone layer (Stratosphere) of the atmosphere checks the harmful ultra violates radiation of the sun to save the life.

The main causes of climate change:

Climatic change of the earth is influenced by many factors, mainly by the amount of energy coming from the sun, but also by factors such as the amount of greenhouse gases i.e., water vapour (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), and ozone (O_3) are the primary greenhouse gases in the Earth's atmosphere and aerosols (solid or liquid, balanced in a gas) in the atmosphere, and the properties of the Earth's surface, which determine how much of this solar energy is retained or reflected back to space.

The atmospheric concentrations of greenhouse gases such as carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) have significantly increased since the beginning of the industrial revolution. This is mainly due to human activities, such as the burning of fossil fuels, land use change, and agriculture. For instance, the atmospheric concentration of carbon dioxide has been growing faster in the last ten years than it has been since the beginning of continuous measurements around 1960.

Climate changing - brief historical outlook:

The warming of global climate is now definite. There are many observations of increasing air and ocean temperatures, extensive liquefied of snow and ice, and rising sea levels.

More specifically, eleven of the last twelve years (1995-2006) rank among the 12 warmest years ever recorded since global surface temperatures are measured (1850). Over the last 100 years (1906–2005), global temperature has increased by 0.74°C. Global sea level has risen by 17 cm during the 20th century, in part because of the melting of snow and ice from many mountains and in the Polar Regions. More regional changes have also been observed, including changes in Arctic temperatures and ice, ocean salinity, wind patterns, droughts, precipitations, frequency of heat waves and intensity of tropical cyclones.

The temperatures of the last half century are unusual in comparison with those of at least the previous 1300 years. The last time that the Polar Regions remained significantly warmer than now for a much extended period (125 000 years ago), the sea level rose by 4 to 6 meters.

Most of the increase in global temperature observed over the past fifty years is very likely due to human emissions of greenhouse gases.

Future affect of climatic change and the environment:

The global average temperature is expected to increase by about 0.2°C per decade over the next two decades. Continuing greenhouse gas emissions at or above current rates would cause a further increase in global temperatures and many other climatic changes during the 21st century.

The best estimates for projected global temperature increases from the 1980s to the end of the 21st century range from 1.8°C (1.1 - 2.9°C) to 4°C (2.4 - 6.4°C the Intergovernmental Panel on Climate Change (IPCC)), report of 2007. Global average sea level is expected to rise by 18 to 59 cm by the end of the 21st century. Warming is expected to be greatest over land and at high northern latitudes and smallest over the Southern Ocean and parts of the North Atlantic Ocean. Other projected changes include acidification of the oceans, reduced snow cover and sea ice, more frequent heat waves and heavy precipitation, more intense tropical cyclones, and slower oceanic currents.

Warming and sea level rise caused by human activities will continue for centuries, even if greenhouse gas concentrations were to be stabilized. If warming persists over many centuries, it could lead to a complete melting of the Greenland Ice sheet, increasing global sea levels by about 7m.

Present impacts of climate change:

Regional climate change is already affecting many natural systems. For instance, it is increasingly being observed that snow and ice are melting and frozen ground is thawing, hydrological and biological systems are changing and in some cases being disrupted, migrations are starting earlier, and species' geographic ranges are shifting towards the poles.

Despite remaining gaps in knowledge, it is likely that these effects are linked to human influence on climate. At the regional level, however, responses to natural variability are difficult to separate from the effects of climate change.

Some previously unanticipated impacts of regional climate change are just starting to become apparent. For instance, melting glaciers can threaten mountain settlements and water resources, and damage associated with coastal flooding are increasing.

Future impacts of climate change:

Over the course of the 21st century, many impacts are expected to occur in natural systems. For instance, changes in rainfall and the melting of ice and snow are expected to increase flood risks in some areas while causing droughts in others. If there is major warming, the capacity of ecosystems to adapt will be exceeded, with negative consequences such as an increased risk of destruction of species.

The most vulnerable people are in general the poor, since they have less capacity to adapt, and their livelihoods are often dependent on resources that are linked to climate.

Impacts will depend on the magnitude of the temperature increase. For instance, some crops at middle to high latitudes will have higher productivity if local temperature increases by 1-3 °C, but will be negatively affected beyond that. If higher temperatures persist after the 21st century it could result in very large impacts. For instance, the large sea-level rise that would result from the melting of the Greenland and Antarctic ice sheets would have major repercussions on coastal areas. The cost associated with the effects of climate change is projected to increase over time with rising temperatures.

A projected increase in the severity and frequency of droughts, heat waves, and other extreme weather events is expected to cause major impacts over the course of this century.

Human adjustment with the climate change:

Humans need to adjust to the impacts of climate change, for instance through technological solutions such as coastal defenses and changes in consumption habits. Humans are already adjusting to climate change, and further adaptation efforts will be necessary during coming decades. However, adjustability alone is not expected to be able to cope will all projected effects since the options diminish and the costs increase with rising temperatures.

Vulnerability of human populations to climate change and its consequences can be affected by other factors, such as pollution, conflicts, or epidemics such as AIDS. An emphasis on mitigation measures that aim to reduce greenhouse gases emissions can help avoid, reduce or delay impacts, and should be implemented in order to ensure that adaptation capacity is not exceeded.

Present trends in greenhouse gas emissions:

Global greenhouse gas emissions have grown noticeably since pre-industrial times, with a 70% increase from 1970 to 2004 alone (IPCC Report). Over this period, emissions from the transport and energy sectors have more than doubled. Policies put in place in some countries have been effective in reducing emissions in those countries to a certain degree, but not sufficiently to counteract the global growth in emissions.

Without additional measures to mitigate climate change, global green house gas emissions will continue to grow over the coming decades and beyond. Most of this increase would come from developing countries, where per capita emissions are still considerably lower than those in developed countries.

Actions taken to reduce greenhouse gas emissions:

The important development to reduce greenhouse gas emission plan could equalize the projected growth of global emissions over the coming decades or reduce emissions below current levels.

It will stabilize the concentration of greenhouse gases in the atmosphere by 2100 or later. To achieve low stabilization levels, stringent mitigation efforts are needed in the coming decades. This could reduce global GDP by up to a few percent.

Changes in lifestyle and behaviours that help resource conservation can contribute to climate change mitigation. .

No one sector or technology can address the entire mitigation challenge. All sectors including buildings, industry, energy production, agriculture, transport, forestry, and waste management could contribute to the overall mitigation efforts, for instance through greater energy efficiency. Many technologies and processes which emit less greenhouse gases are already commercially available or will be in the coming decades.

In order to stabilize the concentration of greenhouse gases in the atmosphere, emissions would have to stop increasing and then decline. The lower the stabilization level aimed for, the more quickly this decline would need to occur. World-wide investments in mitigation technologies, as well as research into new energy sources, will be necessary to achieve stabilization. Delaying emission reduction measures limits the opportunities to achieve low stabilization levels and increases the risk of severe climate change impacts.

Conclusion:

Current warming trends are unequivocal. It is very likely that greenhouse gases released by human activities are responsible for most of the warming observed in the past fifty years. The warming is projected to continue and to increase over the course of the 21st century and beyond.

Climate change already has a measurable impact on many natural and human systems. Effects are projected to increase in the future and to be more severe with greater increases in temperature. Adaptation measures are already being implemented, and will be essential in order to address the projected consequences. There is, however, a limit to adaptation; mitigation measures will also be needed in order to reduce the severity of impacts.

Additional research addressing gaps in knowledge would further reduce uncertainties and thus facilitate decision-making related to climate change.

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Professional Competency in Teaching-learning

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Abstract:

This paper provides an outline for growth of professional competency among teachers of our conventional teaching-learning process. It highlights basic objectives and values of professional competency. The basic resources for teachers' competency are discussed in the context of higher education. The paper briefly discussed some of the important resources in developing professional competency e.g. knowledge and understanding, teaching-learning skill, inheriting leadership, social-responsibility, acceptance a standard, creating teaching- diversity, critical understanding etc. It concludes that growth of teachers' competency is one of the cornerstone for sustainable development of an teaching-learning process.

Key words: Teaching-learning, Competency, Professional-development, Performance.

1.   Introduction

Over the years teacher's competency and commitment are the central points of educational management and training. This is because they are closely associated with work performance. Teacher is the most crucial factor who can translate ideas into ideals, ideals into instructions and thereby knowledge understanding and wisdom. They have the responsibility to propagate those into common masses one generation to the next.. According to many teaching-learning specialists, acquiring competency in teaching is one of the prime factors for professional growth and of a teacher. In fact, it is the heart of teaching-learning process. In an educational system, absolute value of education is attainable when teaching-learning management synchronizes with teaching-learning process. Competency which is the basis of professional development provides clarity and appropriate differentiation in human development process. It is therefore, essential that a teacher should develop competency and commitment in his or her field.   Studies have shown that teacher's commitment towards profession more often influenced by the work situation and self-satisfaction. Various studies have been carried out on teaching competency of teacher both in India and abroad. Results show that teachers' competency and commitment are the challenges of present days. Today's world is far different from few years back and specially in the arena of education. Effective

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teaching is urgently needed otherwise learner will definitely avoid the conventional teaching-learning to shift towards other mode of learning. The present analysis highlights some basic aspects to grow teachers' competency for successful teaching-learning process.

2.0   Objectives of Teaching-competency

Competency in teaching means carrying the process of teaching-learning through a set of behavioral objectives so that the learners no longer able to understand the meaning of what they are asked to do, while on the other hand the set of behaviour learned actually coincided with the objectives of teaching-learning . It has multi-facetted nature which brings together a variety of seemingly disparate approaches that ultimately develops a '*sense of realization' within the learners.* The basis objectives of such teaching-learning are that a teacher has to acquire the some values or components of teaching-learning which could lead to successful teaching and a meaningful conclusion of the process. Every profession has its own values and concept. An individual through proper education has to translate those values and concepts into action and reality. Teaching being one most important profession, teachers must acquire certain basic values for his or her profession. Some of these are as follows.

2.1   Concept and Clarity

'Concept' is the cognitive science that makes a teacher thinking and behaving accordingly. It is the tool that a teacher needs to utilize in solving problems. It is the science that builds up a picture in mind of teacher by mixing knowledge and experiences gathered with time. This in turn helps to develop skill which is the behavioural outcome   of that a teacher that he or she demonstrates in a situation directly and indirectly. Competency with knowledge and skills measures capability of performing a professional task. It also defines excellent potential. Competency on a particular area or task means to attain the level of mastery required for that. It provides linear basis of understanding in a particular field or task. This is why for a teacher, without teaching competency within his or her field of study, professionalism is meaningless.

2.2   Professional Competency:

The concept of 'Professional Competency' in teaching-learning process is a relatively new approach. It is the central point of teaching-learning process. 'Professional Competency' is the process of stimulating individual's growth of competency associated with successful performance. It also refers to growth of soft-skills in teaching-learning process. It means growing and transforming one's knowledge, understanding and skills into action in a teaching learning process. It provides clarity and appropriate differentiation in teaching-learning

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process. It structures the vision of teaching-learning in professional way. It targets to develop academic skill to a learner in a specified field. Some of the factors which help teachers in growing professionalism are as follows.

- Environmental-adaptability
- Building-trust and collaborating teamwork
- Effective-communication, Cultural-competency
- Acquiring decision making and problem solving capability
- Planning and organizing capacity
- Managing stress and tolerance
- Technical and professional knowledge-skill etc.

2.3   Competency and Performance

Teaching is a professional task, more than a technical work. A good teacher makes things easier while a bad teacher makes it more difficult. Learners generally don't try to see a bad teacher as a challenge to concentrate on lectures and extract from them. The task of teaching becomes easier for the learners who are self-motivated by doing extra reading and work to understand the material rather than motivating them by the teacher or other. There lies the importance of teacher's performance in teaching-learning process. On the other hand, competency and performance are different, they may not coincide. A competent teacher may not be a good performer; on the other hand, a poor performer may not have lack of competency.   Since teaching is a performance and teacher is the performer therefore, both are highly depended upon professional competency.

2.4   Competency and Creativity

The gap between organizational output and industrial requirements can be filled by inculcating two capabilities in learners. Firstly, task performing capability which we call competency, and secondly, building conceptual ideas which is purely knowledge and experience based and can be obtained through a time bound curriculum. These ultimately help in developing creativity which is the ultimate goal of teaching-learning process. In a teaching-learning process there needs a considerable amount of creative activity not only in applying specialized knowledge and techniques to resolve problems but also in framing or setting problems. Importance of higher levels of cognition like relating, comparing, synthesizing, abstracting, etc. are also important in developing creativity. Teachers can continually enhance their professional competency and creativity through following ways:

- Self-assessment of learning needs and developing annual growth plans.

- Participating in professional developmental activities etc.

- Interacting through seminars/conferences on specific issue or problem.

- Addressing social critical issues, sharing ideas, working on social/ institutional activities for positive solutions.

- Designing/organizing a course curriculum and participating similar workshops etc.

- Mentoring peers etc.

3.0   Competency Resources of Teaching-learning

3.1   Knowledge and Power of Understanding

The primary purpose of a teaching-learning process is to foster an extensive and deep knowledge and understanding of subjects/curriculum of areas and related pedagogy. It should also provide learners clarity of the expectations inconformity to the changing scenario of environment of academic system. Teacher must facilitate knowledge and understanding through behavior management strategies. He/she should also help to know how to use and adapt them including how to personalize learning and providing opportunities for all learners to achieve their maximum potential. This may possible by following ways.

- Designing employable curricula which can disseminate knowledge through effective teaching-learning.

- Conducting classroom training on technical/professional knowledge and skill.

- Successful meetings/ interactions with experts from various fields.

- Improving listening and writing skills.

- Organizing web-based training specially for quick knowledge and soft skills.

- Getting into e-learning courses.

- Effective public speaking or presentation.

- Organizing, mentoring programs etc.

3.2   Critical Understanding: A competent teacher should have ability to identify areas of strength and weakness for further development. They must have critical understanding on teaching-learning, behavioral and class room management, different strategies in identifying and using learners' potential to its optimum level, etc.

3.3   Leadership and Togetherness: Teachers are the best social leader. They have to carry work allotted with the system as a leader. They must keep ready to take a leading role in developing workplace, policies and practices, and in promoting collective responsibility for

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effective implementation of policies. Every member has to take lead in planning collaboratively with colleagues in order to promote effective practice.

3.4   Social Responsibility: It is ethical that every individual has obligation to act to benefit society at large. This responsibility can be active by performing activities which promotes social and institutional goals. One of prime goal of education system is to link future to the past. Today's leader may be manager in future. Therefore, a competent teaching-learning may be useful tool to plan and help youth to make them socially responsible and ethical strong personality.

3.5   Teaching-learning Standard

Standard is a powerful tool for a professional, because, it helps in supporting innovation upgrading outcome quality. Effective standardization promotes forceful competition and enhances qualities enabling the profession to take a leading role in shaping the system. This also provides clarity of the expectations in their teaching career inconformity to the changing scenario of academic environment. Standards are also powerful marketing tools. They help in attracting and assuring learners, and also maintaining best practices.

3.6   Self-development

Creative, constructively and critical approach towards innovation of own profession is the self –development. Teacher's professional learning is a complex process. It requires cognitive and emotional involvement individually and collectively. That is why there need be willingness to adapt practices self- improvement, constructive acts upon advice and feedback, ready to be open in coaching and mentoring and most importantly, willingness to in refine approaches where necessary. This is possible through a series of continuous process for professional development.

3.7   Co-learning

Teachers working together, co-learning with learners and colleagues, sharing practices with learners etc. are clearly reflect in students' performance. Teacher's networks and teams, communities of practice and communities of learning, as well as peer coaching also effect on students' performance.

3.8   Diversity in Teaching-learning

Diversity is a path for achievement. Diversity means differences in identities and their backgrounds not limited to race and ethnicity, class, sexual orientation, gender, age, religion, political opinion, language, and ability. A teacher may diverse issues proactively to ensure that issues related to diversity have the potential to improve rather than obstruct the

classroom experience for students. Teacher's extensive knowledge on matters concerning equality, inclusion and diversity in teaching generally leads excellent results and outcomes. The key ideas to approach teaching-learning diversity are as follows.

(i)   Building a strong knowledge base by knowing students' identity, culture, background, gender, race and ethnicity, cognitive, and emotional development.

(ii)   Adopting methods of multicultural education in the classroom management.

(iii)   Critical change in policies or practices including identity related biases and privileges may boost additional help in academic achievement.

3.9   Team and Collaborative Work

Teaching-learning is team work where teacher is the leader. He should lead by example. Teacher should check into the team areas regularly to encourage, guide and nurture learners through the process. Peer moderation is the one of the important criteria in competency development where team members to evaluate one another's contribution at the end of the project, which may be reflected in grade. This process can motivate leaner to contribute more equitably. Teacher should make them aware that their individual participation and contribution to the team project is assessable and will contribute in getting their grade. Good team work is itself a facilitator specially in communication, understanding and solving problems.

3.10   Learner-centric Approach

The conventional curriculum is virtually meant everything is for everybody. This is contradictory to the principle of learning. A curriculum is a framework to guide learner in achieving goal. It must be aligned with the needs of the learner and infrastructure support available. Every curriculum has certain aims that must coincide with learner's goal. It should design so to motivate and explore knowledge and understanding of learner. Therefore, it is necessary to designed learner centric curriculum where teacher's role is to facilitate growth by utilizing the interests and needs of students as a guide towards meaningful utilization of knowledge within the curriculum. Similarly, class room is to be goal oriented and should not be free for all.

3.11   Self-assessment

Teachers are expected to know and understand the relevant strategies to deliver the relevant statutory and non-statutory curricula. Professional development advocates periodical assessment on impact of teaching on learners' progress towards the objectives. This is done through internal and external monitoring process. This gives teachers opportunity to

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systematically gather evidences across a range of activities which after analyzing they can transform into actions for progress towards our targets. Teacher can take help some queries in assessing themselves, as follows.

(i)   How much the curriculum could plan and set subject-related targets in developing of learners' knowledge and understanding?

(ii)   How far it is able to clear learners' common misconceptions?

(iii)   How far it is able to provide to construct and scaffold learning?

(iv)   Can it be able to analyse learners' progress and make accurate assessments of their achievement?

3.12   Learners' Feedback

A successful teaching-learning needs a systematic process of collecting and analyzing information in order to determine whether and to what degree objectives have been or are being achieved. It provides the necessary resources to specify how the activity could be carried and also the steps necessary to undertake in case of unforeseen shortcomings, constraints or obstacles. It involves monitoring, management, evaluation and implementation. Every learner is an asset of its system. Monitoring means the process by which we gather information regarding the different activities and its probable outcomes of learner's achievement. Evaluation is the judgment on the effectiveness of actions taken based on their impact on quality of teaching and learning.

3.13   Planning and Reviewing

Reviewing means assuring quality. Quality is the responsibility of the teaching staff. Quality assurance is an integral part of the teaching learning process which is meaningless if it is done at the end. Therefore, the system must incorporate a periodical review system for an effective quality assurance and improvement of teaching. This is necessary because (i) to facilitate and ensure the process of continuous quality improvement, (ii) to facilitate bottom-up empowerment of those people who can actually effect improvement, (iii) to ensure that the whole process is non-burdensome, and effective, (v) to ensure that accountability for educational quality must reach all the way to the teaching learning communities. Reviewing process may be done either from the marketplace or through some kind of reviewer who is engaging in the same or similar kinds of educational activities. He must be an educational expert or capable to bring relevant specialized skills within it.

4.   Conclusion:

Education lays foundation of child's cultural, social, moral, emotional, intellectual, physical and spiritual development. It is the power to use one's potentials to maximum. A man is not in the proper sense till he is educated. It is the most powerful instrument whose effective use requires the strength of will, dedicated work and sacrifice from the part of teacher. Since this instrument is in the hands of teachers, they must possess above mentioned qualities for its effective use. A competence professional teacher is one who essentially looks to develop desirable habits, skills and attitudes to the learners apart from disseminating knowledge and understanding and helping them for skill development. The quality of professional competence is to be understood in term of growth and development teaching-learning process in the way how and what way it disseminates information, knowledge and skills, and also the employability to the learners. Thus, if skills and knowledge are engines of economic growth and social development, professional competency is the key of successful teaching-learning process.

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Prospects and Problems of Tourism Industry in Assam

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Abstract:

Tourism is one of the fastest growing industries in Assam. There are lots of tourist resources available in the State which may attract the tourists from different parts of the country and abroad. Assam, one of the constituent states of the region, an embodiment of the natural beauty and grace, a true representative of the region, has been at the centre stage of tourist attraction. Its enchanting rivers, roaring waterfalls, thick and dark forests, heavy rains during monsoon, innumerable varieties of flora and fauna, countless species of wild animals and plants, mysterious clouds, melodious folk music, thrilling dances and festivals, variety of many delicious dishes, handlooms and handicrafts, and above all its green landscape used to attract people from different parts of the world since time immemorial. The major attraction area of the tourism potential in Assam is the forest and wildlife. The two World Heritage Sites including Kaziranga National Park and Manas National Park and many other sanctuaries and wildlife reserves are the key parts of nature tourism or wildlife tourism in the State. In spite of such rich potentials for development of tourism, it has not yet been developed because of some general problems faced by the tourism industry in Assam.

Prospectus of Assam tourism:

Assam is popularly known as the 'Land of the Blue Hills and Red Rivers' occupying a strategic position, it is the gateway to the North-Eastern states. Assam is close to India's international borders with Bangladesh and Bhutan. It is surrounded by Bhutan and Arunachal Pradesh on the north, Manipur, Nagaland and Arunachal Pradesh on the east and Meghalaya, Tripura and Mizoram on the south. Assam is divided into two segments; the Barak valley and the Brahmaputra valley. The mighty Brahmaputra River, one of the four largest rivers of the world, flows right through the land and nurtures a majestic and complex eco-system around it. The natural heritage sites at Kaziranga and Manas add to the treasure of the state. There are different forms of adventure tourism facilities available in Assam likes Elephant safari(Kaziranga National Park), Trekking(Cachar and Karbi Anglong), Boat racing(Sualkuchi), River rafting(Jia Bhoroli river of Bhalukpung), Parasailing(North Guwahati).Apart from these there are other places like Kaziranga National Park, Manas National Park, Nameri National Park, Dibru-Saikhowa National Park, Orang Wildlife

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Sanctuary, Pabitora Wildlife sanctuary, Sonai Rupai Wildlife sanctuary, Sonai Rupai Wildlife sanctuary, Laokhowa Wildlife sanctuary, Pabha or Milroy sanctuary, Deepor Beel .

Tourism has generated employment in different parts of the country. Besides creating opportunities for tourist guides, conducted tours, establishment of hotels, and so many other avenues in the tertiary sector, tourism can be a major source of employment in Assam. It is argued that every domestic tourist can generate direct and indirect employment of three persons, and this can be higher (seven) in the case of inflow of every foreign tourist. It is also projected that every one million rupees invested in tourism, 47.9 direct jobs can be created, besides, of course, creating more avenues for indirect employment.

Table 1.1

Table showing comparison of Indian and foreign tourist arrival state of Assam and Gujarat

STATE	ASSAM	GUJARAT	ASSAM	GUJRAT
TOUR	DOMESTIC	DOMESTIC	FOREIGN	FOREIGN
2004	22,86,630	75,52,026	7285	21,567
2005	24,67,656	1,05,05,755	10,782	75,557
2006	32,68,657	1,21,36,599	11,151	97,178
2007	34,36,484	1,38,94,055	13,105	1,05,127
2008	36,17,306	1,55,12,794	14,426	2,94,739

SOURCE: ATDC & GTDC

The table show that 22,86,630 domestic 7,285 foreign tourist visit in Assam as compare to 75,52,026 domestic 21,557 foreign tourist in Gujarat in 2004. The highest number of tourist visited in the year 2008 i.e. 36,17,306 domestic 14,426 foreign tourist in Assam and1,55,12,794 domestic 2,94,739 foreign tourist. This comparison means that Gujarat has better tourism than Assam and Assam need to do better

Objective of the study

➢ To discuss some issues relating to the performance of the Assam tourism sector
➢ To make suggestion for the improvement of tourism sector in the state of Assam.

Methodology of the study:

This research paper is the form of an analytical study in analyzing the potentiality from Assam which will maintain a bright prospect of economic development in terms of

tourism industry of Assam. The present study is based on secondary data collection. The secondary data was collected by various published sources like books, journal, magazine, reports, publications, etc.

Problem arises in tourism of Assam:

Tourism has a great potentiality for generating income and employment opportunities and economic development of Assam. But due to some reason, this sector has not grown up. The reason is as follows:-

➢ Absence of tourism policy: The Government of Assam has lack of policy to develop tourism into an industry and a target to achieve in respect of attracting foreign tourists, who constitute an important source of hard foreign currency of country as well as economic development of Assam.

➢ Rise of insurgent activities: The foreign and the domestic tourists consider it risky to visit this part of the country, in view of the prevailing law and order situation. The general impression has been that any foreign or domestic tourist could be a soft target of the insurgents. Therefore, they are reluctant to undertake an adventurous journey to Assam.

➢ Lack of Infrastructure: To attract tourists, there should be dissemination of information, infrastructural facilities like good hotels and tourist lodges, affordable and reliable communication network, clean and hygienic food and accommodation, availability of water sports equipment, and the like. This is a strong discouraging factor, which works against a good inflow of the tourist.

➢ Apart from these some other factor like ethnic clashes leading to political instability ,lack of fund, lack of entrepreneurship ability and political leadership, restricted area permit, absence of tourism guide.

Recent steps taken by government:

Infrastructure project:

Over the years, both the Central and State Govt. of Assam had identified and executed several large, medium and minor tourism projects for infrastructure building as well as schemes for marketing and promotion of Assam Tourism. These included infrastructure projects like Development of Tourism circuits Tourism Complex, Yatriniwas, Tourist Reception Centers, up gradation and expansion of tourist facilities, Development of Pilgrim Centers, Water Sports etc.

Public - private partnership:

Tourism is one sector which cannot grow to its true potential with governmental efforts alone. It requires private initiatives for investment and promotion. Some public private partnership run by are Luxury Cruise Vessel between Kaziranga and Guwahati, Amusement Park at Guwahati, Ropeway project at Kamakhya, Luxury resorts, wayside amenities with all modern facilities etc. are in various stages of implementation.

Suggestion to improve tourism industry of Assam:

❖ To attract tourists, Assam tourism has been organising tea-tourism and Rongali Utsav in the state as a part of its publicity campaign. These two mega events have been included in the national calendar of festival to get favourable response from both domestic and foreign tourists. These are very recent innovative steps, which are likely to succeed in attracting tourists, both domestic and foreign.

❖ There should be more encouragement of Private companies to promote tourism venture in the state and government should give more emphasis on to encouragement of entrepreneurship in the field of tourism.

❖ A policy of tourism for the state of Assam has to be evolved on the line of National Policy of Tourism, which incorporates broad policy guidelines to attract both domestic and foreign tourists.

❖ Certain targets should be fixed in respect of tourist inflow, infra-structural development, commissioning of new projects, annual revenue to be earned and employment to be generated

❖ All the infrastructure connected with tourism such as good road communication, good hotels and safari resorts, water sports, tents and other logistics for eco-tourism should be developed.

❖ There should be provision for musical entertainment to the tourists staying in the hotels and tourists bungalows in important tourist places like Kaziranga and Guwahati, so that the evenings become delightful and the tourist can be enriched by the cultural contours of the region.

❖ The state government should open four information complexes each at Kolkata, Chennai, Mumbai and Delhi to motivate both the domestic and foreign tourists to Assam.

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❖ The problem of insurgency and violent political movements, which stands as the stumbling block to the development of Assam, has to be resolved at the earliest. The security scenario has to be improved to make Assam absolutely safe for all tourists.

Conclusion:

Despite having a fast growing industry, Assam is not able to gain the benefit of this development as per its potential. Due to various reasons like terrorism, lack of efficient communication network, lack of awareness, lack of business minded approach of the people etc..All these factors lead to the slow development of the tourism industry in Assam and are able to gain only a very small percentage of global tourism business. If we overcome with above problem, then it sure that our tourism will industry will touch the new height.

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Growth and Development of libraries (World, India &Assam): A brief study

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Abstract:

The libraries are the centre of collection, preservation and dissemination of knowledge materials. It was established by the human societies when the civilization started. This article tries to reflect regarding development of this knowledge organization in the world, India, Assam in brief. Generally there are four types of libraries – the Public library, Academic library, National library and Special library. This paper tries to discuss the role of such libraries as the learning centre in the society.

1. Introducing library:

The word Library owes its origin from the Latin word 'liber' which means 'books'. As such, etymologically speaking, Library bears a close association with books and other published materials; the chief purpose being conservation and preservation of the materials and rendering those for the purpose of posterity. Traditionally it has been conceived as a store house and customarily been defined as "a learned institutions equipped with treasures of knowledge maintained, organized, and managed by trained personnels to educate the children, men and women continuously and assist in their self-improvement through an effective and prompt dissemination of information embodied in the resources" **(Gopalan:2011;p16)**. As the cited definition clearly reflects, initially the prime focus of the Libraries has been on preservation; and books were widely regarded as bearers of knowledge and hence need to be protected. Associated with this was the notion of handling down the gathered skill and experience to the generations to follow. With the passage of time and the subsequent development in human history, Libraries began to achieve greater and greater significance. In fact, in the contemporary world Library holds such a position of paramount significance that the civilizational standard of a society is often being judged by the number of Libraries it has.

Library as a store house of knowledge has a greater social implication and responsibility. On the one hand, it is a repository of a particular society's literary, artistic and cultural excellence; while on the other it is a medium and source of inspiration for their advancement. It safeguards a society's heritage and at the same time contributes to its growth

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and opulence. Besides, a Library provides life-long self education, information on various subjects incorporating regional, national, and international concerns so as to serve socio-economic and geo-political interests of the reading public. A Library also helps in sustenance and fostering of spiritual and religious beliefs of a society by storing documents on the said subjects. Furthermore, a Library's recreational potential in leisure hour was also acknowledged. Nevertheless, the conventional perception of Library has by and large been restricted to preservation of documents and their distribution to the members of the community or particularly to a restricted a section of them. With the beginning of modernism, due to scientific and technological development, Libraries assumed a new turn with respect to its scope and obligation.

2. Modern library:

The conventional idea of a Library as a 'store house' is no longer hold to be suitable for the dynamic purpose that a Library has to serve in the modern world. Several other considerations came in defining a Library, apart from its primary objective of preservation knowledge and its distribution. Emphasis has been given on classification, categorization of the materials as well as their systematic arrangement. Greater emphasis is put on distribution of materials and dissemination of knowledge incorporating readers' varied need and interests into consideration. The longevity of the materials as well as the time constraint of the reading public has also came under purview. The role of the Librarian has also been analyzed thoroughly. The traditional concept of the Librarian as a passive preserver is replaced with that of a dynamic figure who is both a custodian of materials as well as a guide to the visitors of the Library. In a nutshell, the traditional perception of a Library has been thoroughly redefined; making Library a service based institution rather than confining it to a mere 'store house' or repository of knowledge component. In this context, S. R. Ranganathan's definition of Library deserves our attention:

> "A Library is a public institution or establishment charged with care of a collection of books, the duty of making them accessible to those who require the use of them, and function of persuading every person within its jurisdiction to accept and continuously use its service." **(Panda: 1992; p2).**

A Library, then, in its modern sense is a public institution the desired aim of which is to convert the potential readers into actual readers. It is a service institution striving to enable the users to make most effective use of the resources and facilities provided. It is 'public' in the sense that it caters to the needs, aspirations and interests of the community to

be served and its collections are documents of different types including handwritten and engraved materials, printed books, periodical publications, microfilms, paintings, photographs, gramophone and tape records etc. To perform its manifold duties and responsibilities, Libraries collect, stock, process, organize, disseminate and distribute information recorded in documents; rather than simply focusing on preservation. For smooth and wider functioning, it allows open access to its collection and provides service to its users.

3. Library and its importance in the modern society:

Modern societies, as has been indicated above, rely largely on institutional channels for organization of human activity. The major social tasks, be it economic performance, business, health care, education, research, business or industry, is institutionalized for systematic functioning and sustained development. Even the protection of environment and its sustenance is operated through organizations and institutions. It has aptly recognized the prospective of knowledge and information in all round development of human personality. In fact, modern society is heading towards an information based social realm in which the central instruments of change are knowledge and information.

The modern man has understood that living for merely the sake of living or for earning one's bread and butter is not sufficient. He has realized that there are deeper and finer instincts in the human being. These instincts such as moral, spiritual, ideological, cultural, artistic, and aesthetic and others help to refine life and elevate it to a higher plane. Thus, emphasis has been put on facilities for creative and constructive activities to regulate the harmful and destructive tendencies hidden in human mind. As a result education has been given primary attention alongside developing other institutions like cultural, recreation, business, industrial and a host of other establishments. The following table illustrates some of the various institutions founded to satisfy the activities of the modern society:

Activities	Institutions
Education	Schools, Colleges, University, Professional Organizations
Economic well-being	Financial Institutions, Industrial Undertakings, Good Distribution Agencies
Technological Development	Research Establishments, Industrial Establishments
Spiritual Pursuits	Philosophical and Religious Institutions
Cultural Activities	Arts and Crafts Centers, Theatre, Music, Academics
Leisure Activities	Pass-Time and Entertainment Centers
Recreational Activities	Cinema Halls, Television Centers, Sports and Games Associations

Table: Institutions of the Modern society

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The Library is also a part of this wider design. However, unlike other institutions each of which concentrate on one or a few aspect of the society, the Library serves the society in almost all its varied needs. It helps in spread and impartation of education, safeguards economic well-being, contributes to technological advancement, satisfies spiritual pursuits, sustains culture and aids in its expansion, and at the same time operates as a pass-time and recreational means. Its chief purpose, however, remains focused on education and spread of knowledge, to which perhaps modern society lays its greatest importance.

4. Library and Education:

Education implies cultivation of knowledge for over all development of human personality. It must in this context be kept in mind that Literacy itself is not education. Rather, Literacy is a part of education not its means; and hence need not to be confused with education. Whereas Literacy involves learning to read and write at least in its primary level of manifestation, education seeks to impart skills, inculcate values and train for vocational and professional lifestyle. Library facilitates education, be it formal or informal, in a numerous way.

Formal education is by and large propounded through school, college and university or such other academic institutions. In such institutions, Library supplements class room teaching by stocking and making available books and other materials of an academic matter; and thereby fostering the intellectual development of the students. It also develops the students' capacity for analytical and critical thinking and helps them to formulate independent viewpoints and opinions.

In case of non-formal institutions imparting education, it is the Library that functions as the main source of energy and strength as the role and scope of the teacher there is minimal. In such institutions students have chiefly to acquire knowledge through self-study; and hence it is duty of the Library to provide the users with needful and standard materials. It should also be a guide in this respect and help the users in the process of selection of reading materials.

Library has an educational role in another sense also. It increases efficiency of people engaged in various social and vocational disciplines by making them better informed about their areas of work. It also provides appropriate and mandatory materials for physically and psychologically challenged people and helps in the process of their rehabilitation in the society. Apart from all these, Libraries play a key role in research both in sociological and technical fields. It keeps updated information on latest developments and communicates those

to the people who engaged in research or seek to do so. Furthermore, it takes special measures for healthy recreation and entertainment and organizes concerts, dramas, exhibitions, painting competitions etc; and thereby enriches cultural ethos and values of the community.

5. Types of library:

The manifold implication of Library as is explored by the modern society lead to further scrutiny about its aims and objectives. It is been felt that so as to discharge these responsibilities; Libraries need to be classified into different groups so as to cater to the needs of various sections of its users. In the contemporary age, depending upon the nature of documents or materials that a Library stocks and distributes its has been classified into several categories like Data Library, Digital Library, Map Library, Picture Library, Slide Library, Tool Library and others. However, even today Library as an entity has largely been divided into four categories; which are—

- Public Libraries
- Academic Libraries
- National Libraries
- Special Libraries and Information Centers.

These groups are further classified into different sub-groups with a view of the institution or agency that supports and perpetuates them.

5.1. Public libraries:

The concept of Public Library is the most popular among the different types of libraries evolved by human society in modern times. Public libraries are unique in bestowing a right to every citizen to have free access to its books and other information resources. A public library does not charge its users any fee on particular products for any of its services. Its services are, by and large, rendered free to the citizen of a locality. The finance needed for the establishment, maintenance and development of public libraries is secured mostly from public funds. The government under the law of the land levies an indirect tax known as library access on property or land, income accrued on professions or vocations; or on vehicles owned by a person. However, at times a nominal charge is seen to be made by some of the Public Libraries on particular products or services. In a democratic welfare nation it should be legally ensured that a public library is established, maintained and developed in all

localities so as to enable a citizen to reap the benefits, whatever free access to information, education and culture could bring.

Mankind has taken many centuries to evolve this institution; although Libraries of National repute have formed an integral part of the civilized societies in the past. However, number of such libraries was relatively a few and their scope was very limited so as to satisfy mankind's incessant and indomitable urge to seek knowledge and secure them for the posterity. Education has been given great priority for the purpose. The scientific and industrial progress ushering the advent of modernism further boosted in actualization of the role of education in bringing social change.

A growing mass consciousness developed in the modernist period supporting education for all so that each individual of the society can contribute to the nation's overall progress by upholding her/his living standard through education. This necessitated formation of a library which would serve the local communities and provide them the scope for self-education. Enlightened leaders, industrial pioneers, parliamentarians, educationists, political leaders as well as other leading individuals and organizations of the societies began to stretch their helping hands in order to gather funds for collection of reading materials in huge numbers.

Invention of ink, paper, printing and their subsequent improvements, as we would see in detail in the next chapter, accelerated this growth by publishing large number of books in a better quality and making them available in a cheaper cost. With further improvements in communication technology, audio-visual materials like records, charts, illustrations, films, slides, etc. have become easier to acquire. In the present century, with the introduction of mass media it has become possible to provide quick information to the masses, cutting across geographical, political and other man made barriers. These means of communication are being suitably exploited by public libraries of today to achieve the goal of providing easier, quince and free access to information.

Public library has been defined differently by different experts depending upon the importance they gave to its objectives. It is a People's academia for those who laid emphasis on its educative aspect; a widespread cultural centre for those considered its recreational role; while for some others it is a centre to provide authentic information for various aspects of life. However, the most broadly accepted definition the one formulated by UNESCO in 1949, which has been revised in 1972 and re-revised in 1994. This definition,

which is better known as the UNESCO Public Library Manifesto, includes the following characteristics:

- it is a public library which being the local gateway to knowledge, provides a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups;

- a living force for education, culture and information, an essential agent for the fostering of peace and spiritual welfare through the minds of men and women;

- the local centre of information, making all kinds of knowledge and information readily and freely available to its users;

- accessible for all, regardless of age, race, sex, relation, nationality, language or social status;

- lastly, the libraries which have collections and services, all types of appropriate media and modern technologies, as well as traditional materials with high quality and have relevance to local needs and conditions. Material must reflect current trends and the evolution of society, as well as the memory of human endeavour and imagination.

Public Library, being free library supported by public funds, serves the society by performing several functions. These functions range from educational, cultural, socio-economic, and politico-historic to socio-psychological features of a nation or society. The role, a public library plays in changing the unproductive mass of population into productive and contributive individuals in the overall progress of the nation can broadly be summarized as follows:

- Public Libraries provide information suiting the needs of individuals and groups, almost at their door step and in a language understandable to them so as to harness productivity in them.

- Public Libraries disseminate information regarding employment, skill development or self-employment activities to mitigate the hardships of poverty.

- Public Libraries publicize developmental schemes with a view to improve the economic conditions of the rural population and guard them against unhealthy and unsocial practices by revealing such issues into the open.

- Public Libraries help in wide publication and transmission of scientific and technological developments so that the information can be applied in day-to-day life needs for harnessing a better and more easeful living condition.

- Public Libraries identify the lacunae in subject literature in different languages, both regional and national, and communicate such information to prospective practitioners of literature to aid in literary and cultural development of the society.

- Public Libraries build a sense of unity and respect for human values by circulating beliefs, customs and practices of different religious and ethnic sects.

- Public Libraries create and spread awareness of rights as well as responsibilities in legal matters, including both civil and criminal aspects, so that families and communities can avoid unwanted strife and misery.

- Public Libraries provide self-education suiting one's interests throughout one's life span in an informal manner; and thereby orient the hobbies and leisure hours of individuals towards productive and fruitful outlets.

- Public Libraries identify and collect cultural material of importance available in its area; and thus link the people of the locality with its cultural past. This infuses in them a sense of pride and achievement; and consequently strengthens the very foundations upon which the nation or the society stands.

- Public Libraries, being an impartial-information agency, disseminate information and stimulate thinking equally to all the members of the society; irrespective of their language, class, creed, religion, sex, gender, income and status. It, thus, functions as a democratic institution and helps in strengthening national spirit and democratic pursuits.

5.2. Academic Library:

Academic Library, among all varieties of libraries, deserves some special attention as it serves as integral component of academic set up of the Academic Institution to which it is attached. In other words, it is created and maintained to serve and support the curricular as well other co-curricular and extra-curricular activities of educational institutes. It primarily aims to equip the students with life-long learning skills and develop in them creative thinking and imagination thereby enabling them to grow and mature as responsible citizens. It seeks to widen the scope of classroom learning and teaching by supplementing materials related to educational, informational and recreational needs of the students; and at the same time tries to inspire and encourage them to inculcate reading habits and skills. Besides, an Academic Library caters to the wide verities of demands from the teachers and at the same time gives scope to other stake holders of the institution to enrich their knowledge

base. In a sense, it operates the hub of all the activities planned and executed in the parent institution.

An Academic Library should become a teaching instrument in itself. We must remember that an Academic Library does not exist for itself. Rather, it operates as part of the Academia to fulfill the goals set forward by an educational or academic institution. As such, the syllabi, curriculum and plans of the institution exert a direct influence in its function. Text books for students are given here primary importance along with other reference materials. Again, there is a greater need of collecting books and other documents as per suggestions made by the teachers. Moreover, the students need to be guided so as to enable them to identify and locate books for themselves. Open access facility for all students regardless of their race, ethnicity, linguistic backdrop, religious faith, socio-economic status, gender and physical disabilities is another important aspect of Academic Libraries.

An Academic Library needs to direct the young minds of the students to unfold their self and discover their potential. A key factor that deserves attention is inculcation of reading habit and skills for life-long possession; and Academic Libraries, especially of Primary and Secondary Schools, need to give additional attention to this. For this purpose the libraries, in consultation with the authorities or teaching members, may initiate compulsory library periods or classes, conduct regular or timely library orientation programmes, or arrange for celebration of Library Weeks. In libraries of Higher educational institutes, i.e. of colleges and universities, research must be given due priority. This is the focal, if not only, distinction between Academic Libraries of schools and that of higher educational Institutes, i.e., colleges and universities.

Academic Libraries, depending upon the status of the institution that they serve, can broadly be categorized under two heads which are School Library and Libraries of Higher Educational Institutes, which includes both college and university. These again are sub-divisible into different categories. The following diagram illustrates the various categories of Academic Library:
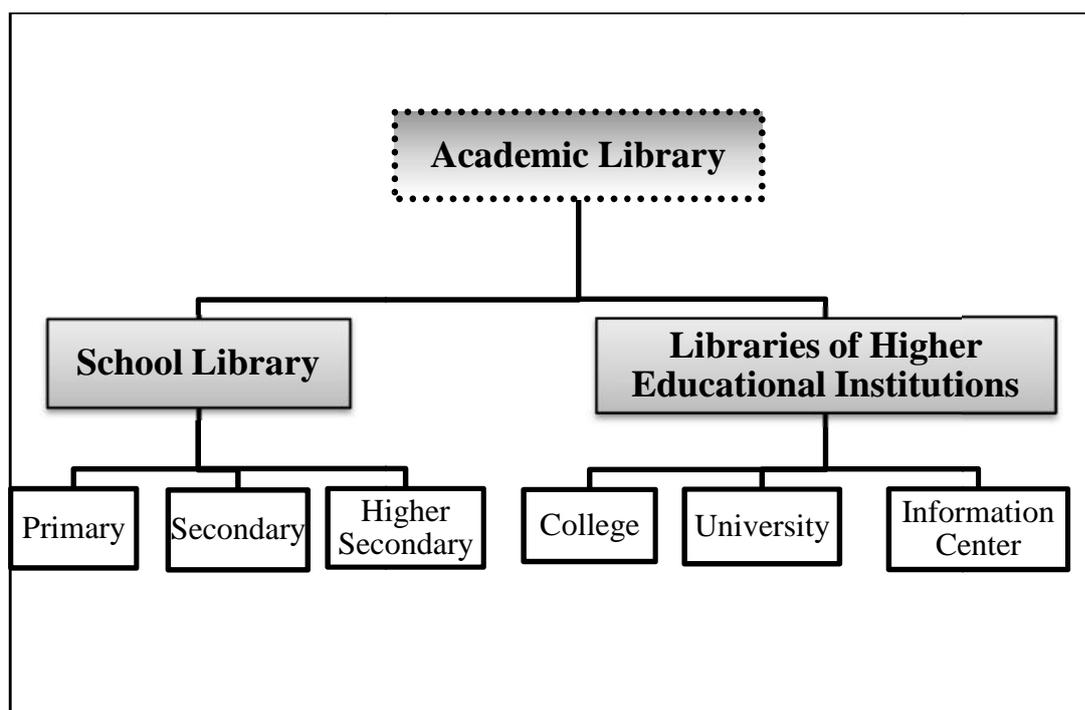
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Figure: *Categories of Academic Library (Note: This diagram is illustrative, not exclusive)*

It must at this be noted that very often we do not find an Academic Institution focusing on only one section of students. Thus, some Secondary Schools do have Primary or even Senior Secondary sections attached to it; while some Colleges offer both Senior Secondary and Post-graduation courses. As such any water type distinction among Academic Institutions is difficult to maintain. Nevertheless, institutes of higher education do provide considerable importance to research, which is often being put aside in schools. Apart from this, Colleges and Universities do have separate Subject Specific Departments or even School Boards for common branches of studies; while in Schools all subjects often come under purview of a wider design of curriculum.

5.3. National Libraries:

The concept of national library had its origin in the older royal or institutional library. However, National Libraries, as we understand them today, is a recent development dating a few centuries back. The advances in science and technology and their applications in industry, trade, transportation and communication during Renaissance and Reformation movements enriched the intellectual and cultural set up of the European countries; and subsequently these countries turned towards preservation and perpetuation the national heritage. Emphasis has been put on document supply, compilation and production of national bibliographies which lead to formation of National Libraries.

National Libraries are that National Libraries are basically located in the capital of the country and hold the focal points of the nation. One unique privilege of a National Library of a country is that it receives copies by law all print and non-print materials produced by the country. This is possible as per the Copyright Act every publisher is under obligation to deposit certain number of copies of the published materials to the National Libraries. As such National libraries are also sometimes termed as Copyright or Legal Deposit Libraries. Besides, they had funds for buying foreign publications, space to house them and a staff to process them. However, the function peruse of a National Library was supposed to be collecting and conserving the national patrimony of country. In no sense they were oriented towards public library service; and their collection was chiefly restricted to humanities and social sciences. Materials on science and technology were still to follow. The ALA Glossary of Library Terms, thus, simply defines the National Library as 'a library maintained by a nation'.

With the advent of 20ᵗʰ century scientific research gained ascendancy following the discoveries of Newton, Pierre, Marie Curie and others. An extensive output of scientific literature began to circulate and this pressurized the authorities of the National Libraries to make it more responsive to users' interest and demand. Simultaneously, the traditional definition of the National Library was challenged severely and there stimulated a new thinking in redefining a National Library and redesigning its functions.

UNESCO provides the National Library as a library which irrespective of the title is responsible for acquiring and preserving copies of all significant publications published in the country and functioning as a deposit library, either by law or under other arrangement. They will also perform some of the following functions: produce a national bibliography; hold and keep up to date a large and representative collection of foreign literature including books, etc.; act as a national bibliographical centre; compile union catalogs; and publish the retrospective national bibliographies **(Patel and Kumar: 2001; p19).**

The Regional Seminar on the Development of National Library in Asia and Pacific Area held at Manila in 1964 assigned the following functions to the National Library:

i) To provide leadership among the nation's libraries;

ii) To serve as a permanent depository for all publications issued in the country;

iii) To acquire other types of materials;

iv) To provide bibliographical services;

v) To serve as a co-ordinating centre for co-operative activities; and

vi) To provide service to government.

UNESCO, at its 16th Session of the General Conference held in 1970, provides a more comprehensive approach to the National Library by upholding the ideas of production of a national bibliography, compilation of union catalogues and publication of retrospective bibliographies. Associated with these are the ideas of participation in inter-library lending and serving as a national and international inter-library loan centers; collecting manuscript material and other archival records of national relevance; operating as a referral centre, which assists users to locate any source of information through specialized directories and guides; and conducting research in Librarianship.

National Libraries across the world almost invariably share the characteristics discussed above. However, these trends are not identical in all countries and there exists variations of different kind among the National Libraries of different countries. Historical traditions, geo-political space, socio-economic set up and scientific and technological developments have determined the nature of emerging National Libraries.

5.4. Special Libraries and Information Centers

5.4.1. Special Library:

Special Libraries, like National and Public Libraries, are a natural outcome of the need for information support in the society in its march towards modernism and development. However, unlike the other two, Special Libraries offer limited service to limited number of users. It is, as the very title indicates, specialized in a particular subject or group of subjects or a particular form of documents; and its users are primarily the specialists and experts in the field. J.F Wright uses the expression "special library" to mean a library which is concerned almost exclusively with the literature of a particular subject or group of subjects. It is neither academic nor commercial, neither national nor public; but intends to serve the needs of a portion of a community requiring detailed information on a limited subject field **(Encyclopedia of library and information science: vol.25; p 125).** Dr. S.R. Ranganathan, on the other hand, termed it as 'Specialist Library' aiming to supply detailed information regarding some subject field - scientific, technical and otherwise" **(Chakraborty: 1993; p 70)**.

One feature, as has been identified invariably by all experts in this respect, is its narrow and specific focus on a branch of study or two intended for a small community of users. Special Libraries differ from other types of libraries in their orientation towards users

also. While other kinds of libraries are organized in such a way that the users locate required information on their own; a Special Library is expected to provide specific information on request from the users. Besides, having limited funds such libraries determine their pattern of information collection anticipating demands of the users; and strive to spent money as wisely as possible. Updated source of information gathered through periodicals, research reports, standard specifications etc. form an integral part of a Special Library. It is, in this sense, a non-static body which responds to the changing demands of users and information. Furthermore, Special Libraries prepare catalogues, indexes, abstracts and information expertise like title alerts to assist the clientele in their search as well as to save their time. Some Special Libraries also offer translation services to aid the users in overcoming the barrier put by language in gathering and internalizing updated information.

Special Libraries, as a new form of library with respect to its functions, purpose, methods of collection and organizing material, first developed in the United States during the early decades of the 20ᵗʰ century. As business and industry started to grow at a rapid rate, these institutions began to apply complex models to stand in the competitive market. As a part of this, numerous organizations steeped forward to form Special Libraries as a means to facilitate technical and updated information for generation and skill development of experts and specialists. Thus, special libraries in clusters or rather as a movement appeared in America to meet the information requirements of the organizations to which they were attached. The escalation of Special Libraries in Europe and other developing countries is fundamentally modeled on patterns of US special library movement; India being one of the beneficiaries of this movement. Today, a wide variety of Special Libraries exist across the world as units of larger organizations to accomplish the desired goals of the parent body.

5.4.2. Information Centers:

The growth of Special Libraries complementing business, trade, and commercial enterprise and government departments intensified development in science and technology, especially after the World War II. Mission-oriented national projects, innovative research for new product and process development etc. began to be taken up extensively. In a nutshell, information and became the key factor for the countries seeking development. This necessitated the libraries to enlarge its scope and support system and at the same time to be more methodical and research oriented. In this relation, to cope up with the rapidly changing social scenario, the need of special information centers has adequately been felt. As a consequence, information services grew in different dimensions with a new orientation and

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fresh approach. These centers, in practice, catered to a wider circle of users belonging to different disciplines. Today, we have a variety of such centers operating in diverse fields at regional, national or international levels.

An Information Centre defined as: " an organization that (i) selects, acquires, stores, and retrieves specific information in response to requests; (ii) announces, abstracts, extracts and indexes information; and (iii) disseminates information in response to requests from documents or in anticipation" **(MLIS-04, part-1, IGNOU:2001; p32).**

Information center, as is reflected in the discussion made so far, bears close resemblance to Special Libraries. Both are commercial in their outlook and serve as small unit of some organization or institution. Besides, they try to comply with the rapid changes in information services and to supply effectively useful information to workers who are subject specialists. Again, initiatives are taken by both of these libraries in preparation and publication of catalogues, indexes, abstracts, CAS bulletins, guides etc. to save time of their clientele. Moreover, retrospective services like Selective Dissemination of Information (SDI) as well as highly consolidated and repackaging including analysis, synthesis and evaluation of information are provided by both of these libraries. They differ, but, in degree, though not in kind, as regards their orientation and operation. A basic difference between the two is that while the special library offers services only to the staff of their parent organization, an information centre often serves a widely distributed group of users having common subject interest.

6. Academic library and reading-learning process:

Academic Libraries, driven basically by student oriented pursuits, need to give considerable attention on reading-learning process. While National, Public and Special libraries are frequented by matured and skilled readers, in case of academic institutes the case is quite reverse. In fact, it is the prime duty of the library of an academic institute to inculcate reading habits among the students so that they grow as skilled readers and can effectively use the facilities provided by various kinds of libraries. This requires the need of attracting the students towards the library and engaging them in its activities as best as possible. In other words, an academic library should convert itself to some kind of a hub, social gathering or resource center for the students.

Librarians along with the teaching faculty have a great role to accomplish this challenging task. In the recent period, the need of a Library Advisory Committee including, in addition, authority members of the institution as well as student representatives have also

been adequately felt. Such committees are often formed to keep a sharp eye on the changes in the wider world and their influence on the students, especially with respect to their reading-learning habits, so as to suggest corrective measures for the library and broadly for the institution to mitigate the uprising challenges.

In United States of America (USA) the concept of 'Library-college' has been widely used. As per this concept the college is considered a library and the library is regarded as a college. As such, the education becomes student centered and encourages students to play a dynamic and creative role in their own education. Students are presumed to do independent study with assistance from teachers as well as librarians. Expanded services including xerox and printing facility, use of audio-visual sets, film shows, tape-slide demonstration as well as exhibition and special display are boosted upon the college libraries. In India also such innovative measures should be implemented by Academic Libraries, especially that of a higher educational institute, so as to keep the students as well as other stake holders engaged in the library activity and services.

7. Writing materials and their preservation in the process of development:

Writing as well as its preservation, prior to the invention of paper, has been a painstaking and expensive affair. Only a handful of people, chiefly those belonging to royal family or having their patronage, could afford to do the same for public interest. Reading and writing remained confined largely to a minority of court goers; and as such the need of a library was not appropriately felt. However, the tribal leaders, Kings and such other people of status needed certain documents to be preserved for the posterity to ascertain their rule over a particular kingdom as well as to keep trace of their genealogy and to glorify the same in order to retain their public image. Thus, early history of evolution of writing and documenting shows a distinctly royal influence, which in due course, basically after the invention of paper, became a matter of public concern; thereby fostering the growth of library as a socially benefitting entity. Nevertheless, the root of library as an entity lies in those pre-historic maneuvers of creation and preservation of writing materials.

7.1. Stone and Metal:

Stone engravings bear the oldest testimony of writing materials in the history of mankind. This, however, does not mean that people began writing after the discovery of stones as writing materials. There might have been other fragile materials which our forefathers have used and explored for writing and transmitting messages; but due to

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difficulty of preservation has not been succeeded to survive the vagaries of nature. Compared to those, stone bore marks of more permanent character and survived through centuries.

Writings on stones were done painstakingly with the help of chisel or sharp tools. Though troublesome and costly, the messages encoded on stones could be preserved for a long period. Inscriptions on stone slabs, pillars and Rocky Mountains even at the present day abound in many parts of the world. The *Rosetta Stone* of Egypt, dating almost 500 years back, is one such typical evidence available.

Stone inscriptions that have survived mostly bear texts of special value like royal annals and religious codes of conduct. Metal plates, though used very early in history, seem to have been used at a later period. These plates were chiefly used to keep records of commonplace activities such as legal codes, land grants, interstate agreements and the like. Metal plates, being easier to preserve than stone engravings, are available in a large numbers in various museums of the World. Metal sheets, usually made up of copper, were used for engraving sacred scriptures as well as for activities of reward and presentation in ceremonious occasions.

7.2. Clay Tablets:

The Sumerians, the Babylonians the Assyrians and the Hittites in the ancient period used tablets made of water cleaned clay for the purpose of writing and documenting. Inscriptions were made on semi-wet clay and then they were dried in sun or burnt in kilns for longevity and durability. Archaeologists discovered clay tablets dating as far back as to the fifth millennium BC and the oldest among those were of Babylonian origin. It is supposed that the use of clay tablets spread from Babylonia to Assyria and other regions to the West reaching up to Egypt through commercial intercourse and conquests.

A great advantage of the clay tablets was that inscriptions could be made on small characters; and thus a single tablet could accommodate substantial amount of texts. Besides, the surviving clay tablets indicate that a heavy emphasis on preservative aspect has been laid upon them. Moreover, they show evidence of linkage among them in which several tablets were inter connected by numerical data or catch words to document longer texts very much like modern books.

The collection of clay tablets reflect wide circulation of reading and writing, indicating existence of schools connected with temples. They also show the commonplace practice of copying. In fact, in 1833 Sir Henry Layard, a British Archaeologist, discovered a

great library of about 10, 000 clay tablets at Nineveh, near the present day Mosul in Iraq. This library is believed to have been built by Ashurbanipal, an Assyrian king in about 600 BC.

Inscriptions on clay tablets were made up of wedge shaped stylus and the tablets exemplify a unique style of writing known as *cuneiform* writing. The use of *cuneiform* writing as well clay tablets declined with the development of Aramaic language and the subsequent discovery of Papyrus. On the one hand, Aramaic characters were difficult to put using wedge shaped stylus; while on the other, the Papyrus provided greater flexibility for writing. As such, Papyrus soon replaced the clay tablets as popular medium of writing and documenting.

7.3. Papyrus:

Papyrus roll is equally antique as clay tablets. The Egyptians used stems papyrus plants for writing by cutting them into longitudinal strips and connecting several such stripes with the help of a paste. A papyrus sheet measured about five to six inches long and in an about twenty such sheets were connected to form a roll. Writing on papyrus was usually done by using quill or brush with ink of different colours.

The Egyptians used long papyrus rolls for books. The Roman word for papyrus scroll was *volumen* from which the contemporary word volume originated. The Harris Papyrus, a papyrus scroll available in the British Museum, is as long as 133 inches. Papyrus, like clay tablets, affected the style of writing and contributed to the development of a very decorative writing known as *hieroglyphic* writing.

Papyrus, though fragile in nature as compared to clay tablets, survived amazingly due to the dry climate of Egypt. It being a part of funeral custom and entombed with the dead body, remained further safe and undamaged. Papyrus rolls were also used for writing religious and ritual texts as well as for keeping hieratic, civil and literary documents. The use of papyrus as writing materials spread from Egypt to Assyria, Greece, and Italy and gradually attained the status of standard writing materials across the regions around the Mediterranean Sea. The Greeks, in fact, set up libraries for collection of papyrus scrolls invariably in all the cities they founded. The library of Alexandria, built by Alexander the great in 322BC, contained as much as 5,00,000 papyrus scrolls and is supposed to represent literature of the entire known world as far as India. The present day book form is a direct antecedent of the papyrus roll.

7.4. Parchment:

Parchment is the generic term for animal skins used as writing material. It is prepared by shaving the skin of animal, preferably that of sheep, goats and calves, and treating same in lime so as to get rid of its fat. Powdered chalk was often used so as to smoothen and soften the skin. Subsequently, dressing of the either side was adopted making both sides suitable for writing. Parchments with dual writing surfaces ensured development of Codex, in which sheets written on both sides were stitched together in the form of a book

Eumenes II, the emperor of Pergamum near Constantinople in Asia Minor, in about 190 BC facilitated experiments with animal skins as writing materials so as to lessen the growing demands of papyrus, which needed to be imported from Egypt through Alexandria, in the country. He also had difficulty in getting papyrus with its supply being cut off by the Pharaoh. As the city of Pergamum gradually turned up as the centre of learning and its library assumed greater prominence than that of Alexandria, following the contribution of the successors of Alexander the great, king Eumenes II had to face this problem of supply of papyrus. From Asia Minor, parchment quickly spread to the West and soon it was adopted by the Greeks and the Romans.

Parchment provided great challenge to the subsistence papyrus as the standard material for writing as early as 2nd century AD. However, the skill of parchment making was still not sufficiently developed so as to replace papyrus. Nevertheless, surviving specimens of parchments belonging to subsequent historical periods show a quite opposite picture.

The introduction of Vellum and Uterine show that incredible improvement has been achieved in the field of parchment making during the $3^{rd} - 4^{th}$ centuries. These parchments were well prepared and of very good quality. They were at the same time thin and delicate, firm and crisp, smooth and glossy. These were mostly made up of skins of still-born or newly born calves and lambs.

7.5. Birch-bark and Palm-leaf:

Birch-barks, as is evident from available literary references available, have been the predominant writing material in the Indian sub-continent during the time of conquest of King Alexander the great. Though of lesser antiquity compared to papyrus or parchment yet birch-barks must have been introduced much before Alexander came to India.

Birch tree is of Himalayan origin and the bark sheets consist of layers collected from the inner side of the barks. Black carbon ink or vegetable pigments were customarily used for writing on the sheets. The sheets were prepared by peeling off the backs in thin

plates and drying them in sun, thus making them quite strong and sturdy in texture. The sheets were then given the shape of a book by placing them between two thin wooden boards and were preserved.

Birch-barks suffered in popularity with the introduction of paper in India by the Arabs during the 13th century AD. Nevertheless, its use continued for a long period in the Northern India, especially in Kashmir and its adjoining areas.

Palm leaves, as writing materials, had wider circulation in the Indian sub-continent than its counterpart birch-bark. One reason behind this has been the abundant growth of Palm trees in various parts of the sub-continent, particularly in South India, Bihar, Orissa and Bengal. Two verities of palm leaves, *sritala* and *tala*, were found to be used for the purpose of writing. Sritala leaf being thin and flexible and having ability to absorb ink was scripted on with pen and ink. Tala leaf, on the other hand, is thick, coarse and do not absorb ink. As such, had to be scripted with metal stylus and then needed to be darkened by rubbing with dark, juicy leaf.

Manuscripts made up of palm leaves were made by binding the leaves with threads between two thin wooden boards on either side. Most of the palm-leaf collections date back to 11th or 12th century AD, the oldest among, the Horiuzi MS, them being reported to be of 6th century AD. Palm leaf manuscripts, having religious sanctity attached to it and used widely for inscription of religious messages, continued to be used in certain parts of India even up to the early decades of the last century.

7.6. Sanchipat and Tulapat:

Sanchipat was the writing material used in ancient times, only used in Assam and made from the bark of the Agar tree or Sanchi tree and Tulapat is made from cotton pulp. On these manuscripts a special kind of water proof ink was used, prepared with local products such as Silikha Seed, Kehraj (a type of grass), ashes and minerals and applied with the help of bird's feather.

In Assam, the Satra institutes are the major custodian of these rare manuscripts, though some are preserved in different places. For the greater interest of the masses such manuscripts are preserved in temples, madrasas, museums, and universities as well as in personal custody. In the middle of 15th century, Srimanta Sankaradeva and his disciple Madhabdeva, along with their other disciples initiated Vaisnava renaissance in Assam. They spread the fragrance of Vaisnava faith among the masses, by written different dramas, Bargeet, Geet, poem etc. mainly on Sanchipat, tulapat etc. (**Mazumdar: 2009; p15**).

In ancient time, in Assam the people who preserved Sanchipats applied a special type of treatment on them. They used to keep these Sanchipats on the roofs of the cooking-house. The smoke which was produced at the time of cooking helped the manuscripts to get rid from the attack of fungus, humidity, insect etc. Generally they keep the Sanchipats in wooden boxes. Apart from wooden boxes, they also used starch free red cloth to wrap these valuable documents. Herbal products like neem-leafs, turmeric-powder, ginger and camphor, leafs of tulsi and tobacco etc. were easily available and these protected the Sanchipats from insects, termites, humidity etc. (**Baruah and Goswami: 2012; pp 2-3**). Presently, these rare manuscripts are scientifically preserved in the form of digitization and stored in CD medium for long time use.

7.7. Paper and Printing Apparatus:

The invention of paper in China about 105 AD provided the world a very suitable and effective material for reading and writing. Paper proved to be both cheaper and easily transportable than other writing materials available at the time. The labour of paper preservation was also comparatively less and it required very little space for the same. Paper, thus, soon after its invention attained the standard writing material, replacing other methods of writing and documenting.

The Chinese art of paper making spread to Arabian countries due to the captivation of paper manufacturers by Arabs in the battles in Russian Turkestan. The Moors at Samarkand learnt the technique from the Arabs. Historical evidences show existence of paper industry in Baghdad in 795 AD. The Crusades and Moorish conquests of Northern Africa and Spain further spread the knowledge of paper making to Europe. Paper was introduced in India by the Mohammedans near about 1223 AD; where it replaced both birch-barks and palm leaves as writing materials.

The developments in the field of printing helped in wider dissemination of reading and writing; thereby both mandating and validating the existence of library. The history of printing started around 3000 BC with the duplication of images by the Mesopotamians. In both China and Egypt, small stamps for seals were used for rolling an impress onto clay tablets. Woodblock printing on textiles and on cloth soon became widely popular. The printing of cloth in Egypt, Europe and India, preceded the printing of paper or papyrus; and is supposed to be prior in origin also in China.

The earliest woodblock printed fragments relate to rule of Han dynasty in China and thus date before 220 BC. The technology of printing on cloth in China was adapted to

paper under the influence of Buddhist Monks. The Buddhists emphasized on production of multiple copies of religious texts and mandated their translation and perpetuation over a wide area. Block printing, by 1300 BC, became common in Christian Europe as a method of printing on cloth. With the ample availability of paper around 1400 BC the transition from woodblock printing to printing on paper became by and large conventional.

The invention printing apparatus in Germany by Johannes Gutenberg provided yet another landmark contribution to the development of library. Gutenberg, around 1439, developed first European movable type printing technology in Mainz. Historical records, however, indicate the existence of movable printing system prior to the invention of printing press by Gutenberg. Bi Sheng in China created a procelain based movable printing apparatus around 1040 BC. In Korea during the reign of Goryeo Dynasty, about 1230 BC, similar metal based movable printing apparatus was invented. Nevertheless, due to the difficulty of managing the set Chinese characters for printing both of these practices could not survive adequately.

8. Print revolution and the growth of academic library:

Gutenberg's invention of printing press, on the other hand, revolutionized the methods of book production and preservation leading to the spread of knowledge and setting up of libraries, especially as an integral part of academic institutions. Gutenberg's printing apparatus made page setting rapid and comprehensively pliable as well as enabled lettering consistent, lading to typography and fronts by the use of letter punches.

Gutenberg also introduced oil based ink which was more lasting than previously used water based inks. Moreover, he used an alloy of lead, tin, and antimony as printer's metal which produced high quality printed books. His first production, the Gutenberg Bible (1455) established superiority of the press over any other method of book production and soon printing presses began to be established in Rome, Flanders, England, and Italy as well as in other parts of the world. Mention must be made that European countries were first to respond in the matter of setting up printing presses than rest of the world.

The invention of the printing press made the production of books much cheaper and easier. A new faith that every human being can possess knowledge by studying books spread among the mass. Books became more available, and the literacy rate grew rapidly; thereby influencing setting up of Academic institutions and libraries.

9. Growth of libraries in the world:

The discussion made above, thus, reveals that the libraries in their initial stage of development consisted of archives of the earliest form of writing. These archives consisted mainly of the records of commercial transactions or inventories; and the writings consisted of inscriptions on stone, parchment, clay tablets, palm leaves etc. Subsequently, Papyrus and Paper began to replace them; thereby heightening the collection of the libraries.

Historical evidence shows existence of libraries dating as back as 25th century BC. The archives and texts at Ebla, ca. 2500 to the destruction of the city ca. 2250 BC, constitute the oldest organized library discovered so far. Located in modern-day Syria, the ancient city of Ugarit boasted at least 5 exquisite libraries as early as ca. 1200 BC. Two of them, one being located at the palace and another attached to a temple were actually private; quite the rarity for the time. All of them largely collected clay tablets, and literature covered an incredible range of subjects ranging from diplomatic archives to literary works in at least 7 different languages.

The Royal Library of Ashurbanipal established between 668-627 BC, in Nineveh near modern Mosul, Iraq impresses the readers with its amazing wealth of Mesopotamian literary, religious and administrative work. Archaeologists have discovered about 30,943 surviving examples of the library, most of which are clay tablets inscribed with Akkadian cuneiform. Library of Ashurbanipal is supposed to have fallen along with Nineveh itself during a 612 BC raid by the Medes, Babylonians and Scythians. There is also evidence of libraries at Nippur about 1900 BC showing a library classification system.

The Royal Library of Alexandria, in Egypt, was shimmering jewel of ancient Egypt supposedly conceiving the largest collections in the classical world. It flourished under the patronage of the Ptolemaic dynasty and functioned as a major center of scholarship from its construction in the 3rd century BC until the Roman conquest of Egypt in 30 BC. The library was conceived and opened either during the reign of Ptolemy I Soter (323–283 BC) or during the reign of his son Ptolemy II (283–246 BC). The library reveals that an early organization system was in effect at Alexandria. It also housed a museum absolutely brimming with artifacts along with its literary holdings.

The Turkish library in ancient Pergamum (now Bergama) also came into existence in the 3rd century BC. The Attalid kings formed, Library of Pergamum, the second preeminent Hellenistic library after Alexandria, founded in emulation of the Ptolemies. When the Ptolemies stopped exporting papyrus, partly because of competitors and partly because of

shortages, the Pergamenes invented a new substance to use in codices, called pergamum or parchment after the city. This was made of fine calfskin, a predecessor of vellum and paper. The Library of Pergamum is estimated to have possessed not less than 200,000 holdings of parchment.

Located in Herculaneum, Italy, Villa of the Papyri holds the honor of being one of the few classical libraries to survive into modern time. The villa's large private collection may is supposed to have belonged to Julius Caesar's father-in-law, Lucius Calpurnius Piso Caesoninus in the 1st century BC. Buried by the eruption of Mount Vesuvius that destroyed the town in 79 AD, it was rediscovered in 1752 with a least 1, 785carbonized scrolls.

The Library of Celsus was also library of antiquity located in the ancient city of Ephesus, western Anatolia. Supposedly completed in 135 AD, Library of Celsus is estimated to have housed 12,000 scrolls. The Greco-Roman senator Tiberius Julius Celsus lay buried beneath the library bearing his name, which now sits ruined in modern-day Turkey.

AD 3ʳᵈ century witnessed establishment of some other great libraries across the world. Prominent among these libraries are, Imperial Library of Constantinople, The Academy of Gundishapur and Theological Library of Caesarea Maritima.

Established during the reign of Constantius II, between 337 to 361 BC, Imperial Library of Constantinople was located at the heart of the Byzantine Empire at Constantinople, now Istanbul. For almost a millennium, the Imperial Library kept the Greek and Roman literary tradition alive and accessible by preserving and transcribing delicate papyri and other works. An incident in supposed to have 473 destroyed around 120,000 texts of the library, while the Fourth Crusade in 1204 eventually smashed the entire library. The Academy of Gundishapur in western Iran, established during the Persian Sassanid Empire in the 3rd through 6th centuries AD.

The Theological Library of Caesarea Maritima, was a late 3rd century AD establishment located in present-day Israel; and bears a living testimony of the great early Christian libraries. Through Origen of Alexandria and the scholarly priest Pamphilus of Caesarea, the school of Caesarea Maritima won a reputation for having the most extensive ecclesiastical library of the time, containing more than 30,000 manuscripts until its ultimate destruction estimated in the year 638 AD.

Iranians and then Arabs, by the 8th century, had imported the craft of papermaking from China, with a paper mill already at work in Baghdad in 794. By the 9th century public libraries started to appear in many Islamic cities. They were called "halls of

Science" or dar al-ilm. Eeach of these libraries were endowed by Islamic sects with the purpose of representing their tenets as well as promoting the dissemination of secular knowledge. The House of Wisdom, an Abbasid-era library and Arabic translation institute in Baghdad, Iraq flourished from 8th century AD–1258 AD.

In the 9th century Abbasid Caliph al-Mutawakkil of Iraq, ordered the construction of a "zawiyat qurra" – an enclosure for readers which was lavishly furnished and equipped. Adhud al-Daula in 983 AD set up a library In Shiraz popularly termed as al-Muqaddasi. It had a complex structure surrounded by gardens with lakes and waterways. The buildings were topped with domes, and comprised an upper and a lower story with a total of 360 rooms furnished with carpets. In the Early Middle Ages, monastery libraries developed, such as the important one at the Abbey of Montecassino. The Christian monks in Muslim/Christian border areas, particularly Spain and Sicily, copied the contents of these Islamic libraries and made their way into other parts of Christian Europe. Also in Eastern Christianity monastery libraries kept important manuscripts; notable among them being monasteries of Mount Athos for Orthodox Christians, and Saint Catherine's Monastery, Mount Sinai for the Coptic Church. Care was taken to protect the books, created via the labour-intensive process of hand copying, by chaining to the shelves. Nevertheless, despite this protectiveness, many libraries loaned books against security deposits. In the 15th century, the period of Renaissance, Italy became a centre of humanistic ideals and scholarship. The learned scholars and their enlightened patrons, especially in the central and northern Italy, founded a great number of libraries. These patrons provided a nucleus around which an academy of scholars congregated in each Italian city of consequence. Malatesta Novello, lord of Cesena,   founded   the Malatestiana   Library.   Cosimo   de Medici in Florence established his own collection, which formed the basis of the Laurentian Library. In Rome, the papal collections were brought together by Pope Nicholas V, in separate Greek and Latin libraries.

With the Turkish invasion and the consequent fall of Constantinople in 1453, great number of humanist scholars fled to the European Countries; thereby spreading the message of Renaissance and contributing to the growth of secular learning. The discovery of the printing press by this very period, along with the doctrine of Renaissance, contributed exceptionally to the growth and development of libraries.

Scholarship became, on the one hand, more and more secular forsaking the bondage of religious and theological orthodoxy; while on the other new institutions based on

humanistic principles began to be established. The collections of books in the existing libraries also grew tremendously. In a nut shell, it can be said that the academic library in its present form is a product of the printing press revolution.

10. Growth of libraries in India:

The Indian Subcontinent, like many of its counterparts, has also passed through a long history of development of libraries. The importance of libraries in academic institutions has also been recognized in ancient India with due importance and enthusiasm. The ruins of Taxila, the city named after TakSa who has been the great grandson of Bharata, the brother of Rama, bear an excellent example of this. Located in the present day Rawalpindi District of Punjab province of Pakistan, the city contains buildings and buddhist stupas located over a large area; and are regarded as parts of a University, known as Taxila University.

The Taxila University, as is evident from the ruins, was established between 6th to 5th centuries BC; and is reputed to have been a centre of Vedic and Buddhist learning, especially under the patronage of Maurya dyanasty. In fact, Chandragupta Maurya's advisor Kautilya (also known as Chanakya) was a teacher at this university. It had an excellent library which drew attention of many a foreign nationals and scholars. Faxian (also called Fa-Hien) came to Taxila in 405 AD; while Xuanzang (also called Hieun Tsang) visited Taxila in 630 AD. The university continued to be a noted centre of learning and to attract students from around the old world until the destruction of the city in the 5th century AD.

In the 3ʳᵈ century BC, the University of Nalanda owed its foundation to six generations of Gupta Kings. Some of its buildings were constructed by the Mauryan emperor Ashoka the Great between 273–232 BC; which is an indication of an early establishment of this Buddhist learning center. Located in the Indian state of Bihar, about 55 miles south east of Patna, the University of Nalanda flourished an ancient centre of higher education from 427 to 1197 AD with the initiatives of akr ditya, the Gupta King popularly known as Kum ragupta and with the support of Buddhist emperors like Harsha as well as later emperors from the Pala Empire.

The complex of Nalanda University was built with red bricks; and its ruins occupy an area of 14 hectares. At its peak, the university attracted scholars and students from as far away as China, Greece, and Persia. Nalanda was sacked by Turkic Muslim invaders under Bakhtiyar Khalji in 1193, the event being seen as a milestone in the decline of Buddhism in India. Some other universities such as, the Vallabhi, the Kanchi, and, the Vikramasila were coming up during the period from the 5th century A.D. to the 8th century

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A.D. Among these the University of Vikramasila, being the premier university of the era, deserves some attention.

Vikrama la was established by King Dharmapala (783 to 820 AD) in response to a supposed decline in the quality of scholarship at N land . Located at the village Antichak in district Bhagalpur of Bihar, Vikrama la had a rich collection of texts in the Sanskrit, the Prakrit and the Tibetan languages. It prospered for about four centuries before it was destroyed by Bakhtiyar Khilji along with the other major centers of Buddhism in India around 1200 A. D.

Tibetan sources indicate rapid growing up of monasteries during the P la period in ancient Bengal and Magadha. Among these, the names of the great Mahaviharas of Somapura, and Jaggadala Vikrama la, other than that of Vikrama la and Nalanda are worth mentioning.

The Mahavihar at Sompuri, like that of Vikramshila, occupied a significant position since the days of Dharampala (769-867 A.D.). This university also had its own library; which served as an important centre of translation of texts into Tibetan languages with initiatives of Atisa Dipankar, a noted scholar who lived there. This university was destroyed by fire in the middle of the 11th century A.D.

The Jaggadal Vihara in Varendrabhumi was also an important centre of learning with considerable collection of the reading material. This library abounded in private collection of texts; and had provision of facilities for reading, writing, editing, and translating manuscripts. It was established by the king Kampala, who ruled from 1084 to 1130 A.D.

The last of the famous seats of learning in Eastern India was Navadwipa in Bengal. It reached its height of glory from 1083 to 1106 A.D. as a centre of intellectual excellence and also for its rich library facilities. This library was also destroyed by Bakhtiyar Khalji (**Panda, 1992; p53**).

Except the lone testimony of a library having a collection of 3000 books on different subjects attached to a college at Bidar, nothing is known about the existence of academic libraries during the Medieval Period of Indian history. Due to Muslim invasions and political troubles, during this period, the powerful empires and kingdoms of Indian rulers fell one by one; and this affected higher education and the development of academic libraries.

The pre-independent India, during the British rule, witnessed establishment of some academic institutions by the East India Company and by the Christian Missionaries. These institutions, meant primarily for curving the need of English educated local officials

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for administrative and other jobs or for spread of Christianity, turned out to contribute a great deal in propagation of education and development of academic libraries.

The Calcutta College, established in 1781, stands as of the earliest higher educational institutions of India under the British rule. This was followed by the Banaras Sanskrit College. It was established in the year 1792 with the initiatives of Jonathan Duncan.

The Calcutta Fort William College was founded in 1800 by Lord Wellesley, the then Governor General of Bengal; and its library had a well round collection of Eastern Manuscripts. The library, however, could not survive for long due to lack of adequate financial support; and was decided to be closed in 1835. The valuable collection of the library was transferred to the Asiatic Society Library in Calcutta in-between 1835-39. Many other notable colleges like St. John's College, Agra; Madras Medical College, Madras; and Wilson College, Bombay were established during this period. All of these colleges had good libraries with sufficient collection for the users.

The Charter Act of 1813, passed by the British Parliament endowed the East India Company with complete responsibility for educating the Indians. The establishment of C.M.S. College in Kottayam, Hindu (Presidency) college in Calcutta in 1816 and Raven Shaw College in Cuttack in 1816 was the immediate result of the Charter Act 1813. Besides, the act made provisions for establishment of Universities at Calcutta, Madras, and Bombay along with their libraries. Subsequently, the Calcutta University was established in 1857, followed by opening of its library in 1876.

In 1854 the dispatch of Charles Wood, popularly known as the 'Magna Carta of English Education' in India, paved the way for the establishment of the universities in the presidency towns of Calcutta, Madras, and Bombay. Subsequently, the Calcutta University was established in 1857; and its library came into existence, bearing the renown of being the first of its kind, in 1876. Nevertheless, the first official word on development of academic libraries came in 1882, in the form of recommendations from the Hunter Education Commission (**Sahai, 2009; p19**).

The Hunter Commission specifically recommended that reference services must be made an integral part of all libraries in colleges and universities, and that one of the pre-requisite conditions for the grant of university affiliation to a college be the accessibility of students to the library of the institution. As a result, in 1917, the Calcutta University Commission, popularly known as Sadler Commission, was appointed by the government to study the situation and the status of education in the country. The immediate results were the

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establishment of teaching-cum-residential universities at Patna in 1917, Osmania in Hyderabad in 1918, Dacca (now in Bangladesh), Aligarh, and Lucknow in 1921, Delhi in 1922 and Nagpur in 1923 with integrated university system.

Higher education and academic libraries, though, made some progress during the first quarter of the present century, yet their growth and development was not very well organized. In 1927, the Indian Statutory Commission, popularly known as the Simon Commission, was formed by the Government to study the conditions prevailing in India; which in turn created an Auxiliary Committee to look into the growth of education in India. In its report, submitted in 1929, the Committee noted the low academic standards in many colleges and universities; and emphasized the need of promoting the standard of the libraries of those institutions. However, the committee failed to provide comprehensive and realistic solutions to the problems.

In 1944, the Ministry of Education in India requested the Central Advisory Board of Education to survey the educational conditions in the country; resulting in formulation of master-plan for the development of education in the post-World War II India. This Board's report is known as the Sargeant Report, after its Chairman, Sir Sargeant. Thus, several committees and commissions were set up periodically during the British rule; and these paved way for development of Higher Education and setting up of academic libraries so much so that there were 18 universities in India prior to its independence on 15ᵗʰ August 1947.

After Independence of India:

The role of libraries in Higher Education began to be felt in India in a wider scale during the post-independent period. The importance of libraries in teaching and research was recognized, and libraries received the early attention of the Government of India; which hitherto had very limited significance in the academic life institutions during the British rule. The growth and development of higher educational institutions and their libraries, in this period, owe greatly to six major contributions in this regard. These are Radhakrishnan Commission (1948-49), Ranganathan Committee (1957), Kothari Commission (1964-66), The Wheat Loan Programme, University Grants Commission, (**Sarmah:2011; pp27-29**) and the National Knowledge Commission (2005) (**Bhatt:ICAL2009; p55**).

The Radhakrishnan Commission in its study found that the academic libraries in India are inadequate to serve the curricular needs of a modern university. They are ill-housed, ill-stocked, ill-staffed, and are lacking in standard literary and scientific journals. The

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Commission recommended that at least six per cent of the total budget of each academic institution should be invested on its library. Major recommendations of the Commission included annual grants, open access system, working hours, organization of the library, staff, steps to make students book conscious and the need to give grants to teachers to buy books. It was for the first time that such detailed attention was paid to the library matters by a commission on university education in India.

The Report of the Ranganathan Committee was published by the University Grants Commission in 1959 entitled 'University and College Libraries'. Some of the recommendations of the Committee included the provision that the UGC and the State Government should help the college and the university libraries in the collection development of both books and periodicals. In order to promote co-operation among libraries, the Committee suggested that a Union Catalogue of books and a Union List of periodicals are to be prepared. The Committee strongly recommended that an open access system be introduced in every academic library.

The Education Commission under the chairmanship of Dr. D. S. Kothari (1964-66) marked another important stage in the history of university libraries in India. The Education Commission had addressed the role of libraries in adult education and recommended establishment of a network of public libraries. The Commission also wanted the school libraries to be integrated with public libraries for purposes of the adult education programmes.

The Wheat Loan Programme was noble venture made with the joint initiatives of Governments of India and that of United States. Under the Wheat Loan Programme many academic libraries in India received additional grants from a special US fund during 1950s and early 1960s an additional. A total number of thirty six (36) universities and one hundred fifty two (152) research libraries of India were benefitted from this programme.

0n 28th December 1953, the University Grants Commission was established following the model of the Universiy Grants Committee of Britain. It was given a statutory form in 1956 by the UGC Act No. 3 of the Parliament of India. Since its establishment, the UGC has played a significant role in the growth and development of college libraries by giving grants for books, equipment, staff and library buildings as well as in salary improvement of the professionally qualified academic librarians. In 1991, UGC started a major programme named Information and Library Network (INFLIBNET) with its head quarter located at Gujarat University campus, Ahmadabad. This programme directed towards

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modernization of libraries and information centers have been providing grants for the automation of the university libraries.

The National Knowledge Commission was set up by the Government of India on 13th June 2005 with a time-frame of three years, from 2nd October 2005 to 2nd October 2008, with a mandate to guide policy and direct reforms, focusing on certain key areas such as education, science and technology, agriculture, industry, e-governance etc.

As a result of systematic planning and strategic developmental policy, the post-independence India witnessed a rapid growth as regards higher educational institutions and growth of academic libraries. At the time of Independence, there were only 20 Universities and 500 Colleges in the country with 2.1 lakhs students in higher education. The numbers, however, have increased to 29 times in the case of the Universities, 71 times in the case of Colleges up till March 2012; with an increase by 97 times in enrolment of students in the formal system of higher education. As on 31.03.2012, the number of Universities had gone up to 574 universities - (44 Central, 286 State, 111 State Private, 129 Deemed to be Universities, four Institutions established under State Legislation) and 35,539 colleges in the Higher Education sector (**UGC annual report, 11-12; pp3-4**).

11. Growth of academic libraries in Assam:

11.1. Ancient period:

Ancient Assam is well known for its love for books, education and libraries. This was being a witness by the truth cite in Bana Bhatta's *Harsha Charita*. It was mention in this document that Bhaskaravarman, a king of Kamrup in sixth century sent to Harshavardhana Siladitya of Thaneswar, *Subhasita* collected works among several other presentations through his ambassador named Hamsaveg. But in those days the libraries were the nucleus of effective repository of our cultural heritage for preservation and storage, they were not for dissemination of information.

11.2. Medieval Period:

11.2.1. Vaishnavik Renaissance:

During the period of 1449-1568 A.D. Assam witnessed a rapid growth as regards education and setting up of libraries. Sankardeva, the famous religious leader of Vaishanavik sect, was one of the first to emphasize the need of education. He also took a leading role in establishment of libraries in Assam by forming the Satras. Satra libraries were open for the people. There were no bar of classism in the Satra libraries and every member of the society had the liberty to read books in the libraries of Satras. There were well organised terms in the

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Satra libraries like Lekharu, Kakati, Bharali etc. who were engaged in the management system of the libraries. In every Naamghar or in the Satras, mainly repositories are religious scriptures, where the tradition of reading and listening process in still followed.

11.2.2. Royal Families:

The Ahom kings were next to emphasized on the need of spread of education. The Royal libraries were organised by the king or the government. They were keen to preserve historical documents for handling the same to future generation. The Ahom kings maintained royal archives, popularly known as Gandhiya Bhral, for preservation of the materials (**Das: GRM Journal 4th issue: 2012; p1**).

11.3. Modern Period:

11.3.1. Public library:

Public libraries are sponsored by public or by Government. A public library is people's university and an asset of democratic country; it has at its base the rural library. Most of the rural libraries in Assam spontaneously developed as a part of Namgarh, Satra, Mosque, Club, Societies etc. Assam Library Association during its childhood period makes a great effort to establish a number of rural libraries. During present time the rural libraries in Assam facing major financial crises and the Government and RRRLF financial grant are unable to cover even a fraction of the total need of the rural libraries.

In 1903 a small library was started in Shillong (old capital of Assam) by the British Government. This library was known as "The Assam Government public library" whose service was limited to the official of the state government in particular and the inhabitant of the capital in general. It was housed in a rented building and had a very small book collection. This library was later on combined with the State Central Library, Assam. The Assam Library Association (Asom Puthibharal Sanga) was started in the year 1938 mainly by the personal enthusiasm of Shri Kumudeswar Borthakur, who devoted his life for the growth and development of libraries in Assam; he was completely assisted in the matter of public library services by Lokpriya Gopinath Bardoloi and other political and social workers. The British ruler was also responsible for establishment of some other library at the district Head Quarters such as Victoria Hall at Dhubri, Holiday home at Nagaon etc. At that time Bishnu Ram Hall of Jorhat, Women Library at Dhubri, Children Library of Sylhet, Bani Library at Tezpur was functioning as the true public library. Now, Assam Government has sponsored Public libraries in most of the districts and sub-divisions.

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11.3.2. Academic library:

Nevertheless, no historical data has so far been discovered as regards formation of Academic Libraries in Ancient Assam, meant for secular and mass learning. The situation in Assam remained, by and large, the same under the British rule also. Little attention has been given by the British Government as regards higher education in Assam; and it is only in the last part of 19th century that academic institutions started to grow up in Assam. The concept of college penetrated Assam as late as 1901 with the establishment of Cotton College at Guwahati. The establishment of University had to wait even further. In fact, prior to independence of India there were no Universities in Assam. Gauhati University, the first of its kind in the state was established in the year 1948. Another factor that contributed to the growth of academic libraries in Assam is the establishment of The Assam Library Association (Sadau Assam Puthibharal Sanga) in 1938. As an immediate effect of this, a number of village libraries and travelling libraries sprang up in Assam during early 1940s. Though dealt primarily with public libraries, the wide publicity of library movement by ALA did exert some impact upon academic institutions also. In the mean time, during 1940s; several schools were established in Assam. However, most of the schools, except the Central Schools and a few private ones, are found to have given no importance to library. The condition has not improved much even today. Books are still seen to be kept in a closed shelf placed at a corner of the teacher's common room or the like. In fact, it would not be to exceed the limit to say that libraries occupy a nominal existence in the schools of Assam; and are hardly in a position to supplement academic pursuits. The 1940s also saw rise of a good number of colleges in Assam. Not less than thirteen (13) colleges were established in the state during 1940-1949. This was followed by establishment of fifteen (15) colleges in the decade of 1950-1959. All of these colleges maintained their own libraries to facilitate education of its students. The actual process of development of academic libraries in the higher educational institutions in Assam, however, can be said to have started during 1960s. A total growth of 26% in regards of higher educational institutes is seen in this period with the establishment of sixty five (65) new colleges during 1960-69 (**Sarmah: 2011; p36**). This was followed by a growth of 22% in the next decade. The following table illustrates the growth of colleges in Assam:

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Year	Growth of Colleges in Assam
1900-1909	1
1910-1919	1
1920-1929	0
1930-1939	4
1940-1949	14
1950-1959	16
1960-1969	75
1970-1979	67
1980-1989	54
1990-1999	47
Source*: Sarmah: 2011; p107*	
2012 (upto31st March)	507
Source: *UGC annual report,2011-2012;p74*	

Table: *Growth of Colleges in Assam*

At present, as on 31st march 2012, Assam has a total number of 507 colleges; 229 being included under Section 2(f) and 12 (B) of the UGC Act, 1956, out of which 30 have not attained the status of 12(B) and are under 2 (f) only. The number of universities in the state has also risen up to nine (9); of which two (2) are Central Universities, five (5) are State Universities and the rest two (2) is a Private University (**UGC annual report, 2011-2012; pp55.60**). All of these institutions are maintaining their own libraries.

Conclusion:

The discovery of paper and its subsequent wide circulation during the early Medieval Period, gave impetus to the spread dissemination of reading and writing; thereby ensuring growth and development of libraries. This period also witnessed growth of libraries outside royal control owing mostly to the initiatives of Christian Monks, Buddhist Priests, and Islamic religious leaders. These libraries were scholastic in nature; and were attached to Monasteries or other religious prayer halls, their collections being primarily ecclesiastical documents or theological scriptures.

The discovery of printing apparatus, on the one hand, fostered the establishment of libraries; and on the other, paved the way for libraries to stand out as a secular entity. Print revolution along with the added effect of Renaissance, which developed at the same time, further eased the process. Reading and writing became a matter of public concern, literacy rate grew at a rapid rate; secular institutions for mass education were established; and modern academic libraries started to evolve and spread.

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