

khiraj half revenue free land.

Land revenue system in south Kamrup :

In the south Kamrup (south bank of the river Brahmaputra) land revenue system was slightly different from that of North Kamrup (North Bank). In the south Kamrup there were some petty kings with their little kingdoms viz- Desh Rani, Dimoria, Beltola, Bordwar, Boga, Luki etc. In local terms they were termed as "Rājā". The Ahom king after their submission reappointed them as the Governors of their little kingdoms. According to the advice of the Ahom king the Barphukan of Guwahati made arrangement with the "Rājās" to pay land revenue to the Ahom king annually for the land under their territories. The Rājās were granted complete autonomy and power in internal affairs of their kingdoms. The British rulers granted pensions to these kings after taking over their kingdoms.

Conclusion :

The land system in upper Assam under Ahom rule was known as "Khel Bandi" paik system. Under this system every able bodies men had to work to the king or the state. Land was allotted to a group of people known as "Khel". The Headman of the "Khel" distributed two purahs of rupit land and Basti land (honested land) to each paik. The ordinary people were known as paik.

The land revenue system, therefore was known as paik system. Under this system as paik had to work in the house of king it might have helped mental and moral development of the citizens which is essential for a state. But in Kamrup there was jaigirdari system. The cultivators had to pay land tax instead of personal service. The land alienation sale or transfer also permitted in Kamrup. While it was not permitted in upper Assam. Land in upper Assam was the property of the king. But in Kamrup, south Kamrup individual right on land was granted to the cultivators, in upper Assam cultivators (paik) were directly attached to the king. There was direct relationship between the king and the cultivators. But in Kamrupa-south Kamrupa it was indirect. The paik system was also in Kamrupa. But paik were not attached to the king but to the Temples, Devalayas etc.

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SOCIO-ECONOMIC AND POLITICAL STATUS OF WOMEN OF THE MINORITY COMMUNITY IN SOUTH KAMRUP

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Perspectives on Women:

"Most men have at one time or another heard, or perhaps even believed, that women are 'inferior' and 'unequal' to men". One such believe is that there are essential distinctions between men and women reflected in creation, capacity and function in society, accessibility to guidance (Particularly to Qur'anic guidance), and in the rewards due to them in the Hereafter.

Although there are distinctions between women and men, I argue that they are not of their essential natures. Most importantly, I argue against the values that have been attributed to these distinctions. Such attributed values describe women as weak, inferior, inherently evil, intellectually incapable, and spiritually lacking. These evaluations have been used to claim that women are unsuitable for performing certain tasks, or for functioning in some ways in society.

The women has been restricted to functions related to her biology. The man, on the other hand, is evaluated as superior to and more significant than women, an inherent leader and caretaker, with extensive capacity to perform tasks that the women can not. Consequently, men are more human,

enjoying completely the choice of movement, employment, and social, political and economic participation on the basis of human individuality, motivation, and opportunity. This is actually an institutionlized compensation for the reverse situation.

Woman alone gives birth to children, nurses them, and is their primary nurturer in their early formative years. Moreover, the social and economic roles that commonly have been defined as the province of the male have never been performed exclusively by men. Subconsciously, men are aware of this fact..... the male has never had an exclusive social or economic role that women could not participate in too.....

Awareness of women's monopoly was psychologically repressed and overshadowed by institutionalizing and socially legitimation male values that had the effect of creating self-fulfilling prophecies² (Emphasis mine)

Distinctions between Men and Women:

In fact compatible mutually supportive functional relationships between men and women can be seen as point of the goal of the Qur'an with regard to society.³ How-

ever, the Quran does not propose or support a singular role or single definition of a set of roles, exclusively, for each gender across every culture.

The Quran acknowledges that men and women function as individuals and in society. However, there is no detailed prescription set on how to function, culturally. Since the Qur'an is moral guidance, it must relate to the perceptions of morality - no matter, how gender specified - which are held by individuals in various societies.

Some prevailing practices were so bad they had to be prohibited explicitly and immediately: infanticide, sexual abuse of slave girls, denial of inheritance to women, zihar, to have a few of the most common. Other practices had to be modified: polygamy, unconstrained divorce, conjugal violence, and concubinage, for example. With regard to some practices, the Qur'an seems to have remained neutral: social patriarchy, marital patriarchy, economic hierarchy, the division of labour between males and females within a particular family.

However, a woman in Islam is an identity in her own right. She is not an extension first of her father and then an extension of her husband. She asserts herself from the moment she is born; she is a person with the characteristics she develops, and she keeps her own name.

All these considerations are there, and yet women are backward, and they are backward not because Islam has made them backward, but because the societies that they live in are societies which have upheld the privileged class and which have subsisted on a policy of discrimination against a wide

segment of population.....

The Minority Community in South Kamrup

It would be better to begin our search for meaning of 'Minority' with the dictionary-the arbiter of the most definitional disputes. Webster's Third New International Dictionary(1968:1440) defines "minority as a group characterised by a sense of separate identity and awareness of status apart from usually larger group of which it forms or is held to form, a part". Webster New Dictionary and Thesarus (1968:426) clarifies that "minority is a racial, religious or political group that differs from the larger controlling group." The Oxford English Dictionary (1933:479) states that minority is "the condition or fact of being smaller, inferior, or subordinate." Collins Cobuild English language Dictionary(1988:920-21) defines thatIf a person or group is in a minority or in the minority, then they belong to a number of people or things that form less than half of the larger group.....A minority is a group of people of the same race, religion, etc., who live in a place where most of the people around them are of a different race, religion, etc."

The dictionary definitions, thus delineate four different criteria characterising minority :

1)Statistically, a minority group is smaller in number less than half of the larger group.

2)Psychologically, the minority group nurtures a sense of separate identity and awareness of status apart from a usually larger group of which it is a part;

3)Socio-culturally, a minority is a

group of people of the same race, religion, etc., who live in a place where most of the people around them are of a different race, religion, etc. That is to say, it is a racial, religious, or political group;

4) Situationally, minority is the condition or fact of being smaller, inferior or subordinate to a larger controlling group. In practice, the term "Minority" is applied only to groups within which there is some uniformity of language, religion or race.

There is practically no nation in the world that is racially and culturally homogeneous. There are groups within nations which differ from one another by one or more than one affinity-race, religion and language. Political boundaries rarely coincide with ethnic, religious, and linguistic borders. When different groups live within a nation state, democratic culture requires that they live under a law and institutions that guarantee equality and non-discrimination.

Assam is a land of composite multi-ethnic, multilingual state. South Kamrup is an integral part of Assam which is bounded by the mighty Brohmaputra in the north. There are many char-lands in the north of south kamrup inhabited by the immigrant Muslims who have migrated from various districts of East Bengal (Now Bangladesh) to south kamrup in different periods. Here 'immigrants' meant only the Bengali Muslim farmers, more than 85 per cent of whom migrated from the East Bengal district of Mymensingh. Historically, immigration of land hungry people from undivided Bengal is more than eight decades old. However, the immigrant Muslims are a linguistic & religious 'Minority community' living in the char-lands

of South Kamrup of Assam. The immigrant Muslims merely form a sizeable population as a 'minority community' in the South Kamrup. This community of the South Kamrup is typically poorer and politically less powerful than the majority community, although certain exceptions exist.

To develop a research picture on socio-political status of women of the minority community, the following exercise was conducted in 28 households.

Social status of women of the Minority Community :

South Kamrup of Assam being interior and inhabited by the Muslim immigrant community, has apparently no impact of modernisation upon its people. The plight of women in char-lands of south kamrup remains pathetic. Education is still a distant dream for most of the womenfolk here. Literacy rate in char areas is 12.10 per cent among the females. This is indicative of their educational deprivation. As the literacy development is a recent phenomenon among most of them, the educational attainment is still very low. Besides, the women of the minority community in south kamrup are not at all conscious about their own rights and deteriorating quality of life due to lack of adequate education. Rather in many respects they simply accept all these miseries of life as their misfortune.

It has been observed that women of the Minority community in char-lands of South Kamrup are mainly considered tools for child birth and maintaining household chores. Besides household chores, the women help their male counterparts in the paddy fields. It may be mentioned that the char women of

South Kamrup can not even have a look of their husbands' faces before marriage. Sometimes, their families arrange marriages with much older grooms due to acute financial hardships. The mothers do not want their daughters to leave home. On the other hand, both women and men are totally ignorant of birth-control policies. As a result the population of the char areas is increasing at an alarming rate. Except the significantly high sex ratio, the women in the char-lands do not score well in almost all demographic aspects. Both the proportion of children in age group 0-6 (26.87 per cent) and birth rate (37 per thousand) are noticeably high. This is directly associated with early age at marriage and lack of family planning practice. This means, female age at marriage is found to be as low as 13.5 years in the char areas of South Kamrup. It is highly discouraging that about 90 per cent of the married females have got married before attaining the age of 18 years and 37 per cent even before 15 years. With number of children per woman upto 12 the average child women ratio is too found to be as high as 6.5. In some occasions the number of children per woman goes on increasing for the interest of male child. The health condition of the child bearing mothers has got deteriorated due to frequent child birth and malnutrition particularly among the poverty stricken ones. The prevailing high sex ratio in the minority community is related to out migration of males in large number for diverse employment opportunities particularly in Guwahati city. It thus reveals that the physical well-being of the immigrant Muslim women in the South Kamrup is very discouraging one.

Added to the above, the position of women of the Minority Community in South Kamrup is also far from satisfaction in socio-economic front. It has been found that the women are deprived and discriminated in gender term in almost all respects both within and outside family of the Minority community in South Kamrup of Assam.

Economic Status of Women of the Minority Community

It is indeed difficult to tabulate with any precision the nature of the workload or daily round of activities that an adult woman has to undertake in the char-lands of South Kamrup. As a matter of fact, the daily round of work and the volume of activities largely depend on the financial condition of the family concerned. During and after the harvesting seasons the women of the Minority community are so absorbed in their household works that very often they can not precisely recount and relate their total workload and respective time-use. Depending on the socio-economic status, the char woman engages herself in a number of activities, which may be categorized under Six broad headings these are :

- (i) Domestic work,
- (ii) Childcare,
- (iii) Cash earning activities,
- (iv) Post harvest activities,
- (v) Rest and recreation,
- (vi) Others.

There are seasonal variations in respect of work undertaken. During the floods, the char women work much less as they remain confined to their houses due to inundation. In chars, the summer season in the time for hard work, when savings in cash and in kind

can be made to be consumed later in times of crisis or flooding. In winter, the days are shorter, and more work has to be performed as it is also the season of harvesting and social occasions. During the winters, the womenfolk have to work even after dark to complete their daily chores.

Table 1.1 is compiled to illustrate the nature of activities of the char women. They are the ones to wake up first and then rouse other adult male members of the house from sleep. Women of well-off families wake up early and go to bed late (4 am- 8 pm), especially in the harvesting seasons; their activities are seemingly spread over a longer duration (16 hours). But when their actual active hours are reckoned, they total about 6 hours which is less than the time spent in work by the other two groups. Female, who head their households remain busy for over 8 hours. Women of poor households do not have much to do within the house remain active for 7 hours, but, nevertheless, they mostly spent in collecting firewood, vegetable leaves and other stuff for preparing the meagre family meals. It is to be noted that the active hours have been calculated by totalling the time spent on each activity.

Domestic chores :

Domestic chores include work done daily, i.e., all sorts of cleaning work, such as sweeping, washing clothes, etc. the cooking routine involves, besides preparing the meals, serving the meals to the members of the family and washing all the pots and pans and dishes. The activities however, vary by social groups. Women belonging to the poor group spend more time in physical labour, while women of well-off families are mostly

busy taking care of the family and supervising all sorts of activities in the house with the help of servants.

Child-care :

Besides feeding, child care calls for other gesture of loving-kindness such as making time to play with the children and carrying them when they yearn for the mother's lap. In the chars of South Kamrup (as among the poor in general) little time is spent on child care, which is due to the absence of the idea of child care as a special activity in the rearing of children. Affection for children is virtually absent among the chouras; at least, parents' overt expressions of love for their children were never seen during date collection. Although it will be unfair to generalize experience suggests that since the children group up in an environment of apathy, they eventually turn into rude and unfeeling individuals.

Post Harvest Activities :

Post-harvest activities consist of threshing, drying, cleaning, parboiling paddy, husking, and so on. Women of the wealthy choura households are usually busy supervising hired hands in such post-harvest activities. But this is a seasonal affair.

During the peak agricultural season, females of these households have long working hours (from 4 am to 7 pm). On the other hand, women from poor choura households are less involved in post-harvest activities, as the amount of paddy they have is too little compared to the better-off households. They sell their paddy at the market or to other who are a little better-off. But they are never seen selling it to the

Table 1.1
Activities and approximate time use

Extent of working hours	poor Household 12 hrs. (6 am - 6 pm)	women Headed 13 hrs. (5 am - 6 pm)	well-off Households 16hrs. (4 am - 8 pm)
Mean Active hours	7.0 hrs.	8.5 hrs.	6.0 hrs.
Activities of CHAR women			
Domestic chores	2.5	1.5	1.0
Cleaning homestead	x	x	-
Cooking	x	x	x
Fetching water	x	x	-
Child care	1.5	0.5	1.5
Feeding	x	x	x
Caring	x	x	x
Carrying	x	x	-
Playing	x	-	-
Post harvest activities	0.5	0.5	2.0
Supervising	-	x	x
Threshing	-	x	-
Drying	-	x	-
Cleaning	-	x	-
Parboiling paddy	-	x	-
Husking	-	x	-
Cash Earning Activities	0.5	5.0	1.5
In - bari	-	-	-
Kitchen gardening	x	-	x
Poultry	x	-	x
Livestock rearing	-	-	x
Mat making	x	-	x
Off-bari	-	x	-
Maid at matbar's house	-	x	-
Earth cutting	-	x	-
Wage labour	-	x	-
Leisure and idle time	1.5	0.3	1.0
Others	0.5	0.7	0.5

Note : Figures represent proportion of time used; x Sector indicated by the respondents as working. Source : Field Survey, 1993-94.

matbar. The poor choura women sell their paddy because they need cash. Besides, fuel is expensive and not easily available in char areas of South Kamrup, which sometime leads them to sell their produce unprocessed. As a result, the benefit they get out of their harvest is minimal.

Cash Earning Activities :

The cash earning activities of the char women include all income generating activities that contribute directly to the household. These are usually carried out both within (in-bari) and outside (off-bari) the homestead. Helping the family through in - bari income generation is limited to such activities as rearing chickens and ducks only. Very few households can go for some kind of vegetable gardening, as the mostly sandy char soil is not suitable for such cultivation. Females from landless and female - headed households find off-bari employment at matbars' households. Engagement in off-bari work does not relieve them of their regular in - bari preoccupations. That is, these women remain equally active in both off-bari and in - bari work.

Women of the matbars' families and of relatively well-off households do not have to spend much time in cash earning activities. Their work in this category involves the tending of kitchen gardens and rearing poultry and livestock. These households reported that poultry products were a source of extra income for the women. Making mats out of palm leaves is seen only among the poor and women-headed households. Discussions in course of the study, however, revealed that the womenfolk preferred to stay at home and avoid off-bari drudgery. The ideal for prestige conscious women of well-to-do families is to be in purdah within the confines of their house.

Leisure and Idle Time :

Leisure time pursuits, as also the parcel of idle time, depend on the socio-economic status of

a household. Only women of well-off households can afford more time for rest and recreation. Usually the people in the char-lands do not stir from their house after nightfall. The economic condition of a household can also be a determinant of a women's idle time.

Other Activities :

Other preoccupations of char women include daily baths, personal care, and religious rituals. The womenfolk of the char-lands commence their daily rounds of work very early in the morning, char women usually maintain cordial relations with their neighbours as many of them help one another out in times of emergencies.

Based on field observations, I have categorized the char women in three groups. The first group of women may be characterized as a tired in poor clothing, with their gloomy faces peering from behind the fences of their house for help. Another group is struggling to combat poverty by accepting off-bari activities. The second group consists mostly of women who head their households; they unblinkingly stated, "Purdah (the veil) did not help us feed ourselves and so we had to come out of our houses." The interview sessions eventually led me to believe that the char-land society in the South Kamrup was very crudely a 'man only' domain.

Voting patterns of women of the Minority Community :

Voting provides a periodic opportunity to individuals, castes and group to participate in politics. It is, therefore, considered only an elementary act of political participation. It has been observed that -

- i) Women of the Minority community are not independent voters;
- ii) That a majority of them are illiterate;
- iii) That a majority of them make their choice on the basis of suggestions from male members of the family husband and sons;

iv) That women lack information and political awareness and

v) The women were not politically conscious.

The participation has been more or less steadily expanding over the years through the various elections by way of voting and participation campaigning etc. The increase in the turn out of women voters, particularly of the minority community may be attributed is a high degree of mobilisation, rather than of their own political consciousness in India. One can talk in general of high level of awareness of the value to vote, which is possessed and cast eagerly by the poor people at times very pragmatically and rationally. They are politically sensitive, well aware of their interests and even the political issues. But this awareness, in order to be translated into a political exercise like voting, needs tremendous mobilisation. This is all the more in the case of women, as poverty and daily work, household work and care, patriarchal and family norms act as great disincentives. Distance of booths, possibility of violence, health and other factors further discourage them. The linkage between the 'Personal' and 'Public' is missing, and women do not feel automatically impelled.

Reorganising the significance of the women voters, many political parties have been exerting themselves to devise various methods during 1978-96. Mobilisation has been mainly at the time of elections in the form of adhok promises, made on populist and opportunistic short term basis, rather than on long term goals of social change for women.

To the extent there was any correlation

between the campaign promises and voting support, it also reflected on the low impact that the women's movement had made in educating the women, on well as in making a dent on the patriarchal politicians. The congress party too was not far behind. In 1984, much of the victory of congress (I) could be attributed to a sympathy vote by women for the young prime Minister and against the women to-women basic.

The increase in the number of women votes during 1978-96 and their eager participation in voting has made almost all the political parties pay special attention to organising them, campaigning among them, and choosing them to contest elections. Definitely, in the earlier years such campaigning among women and soliciting their votes were done rather casually. But it has been found that during 1978-96 the political parties have organised regular party forms, calls and front organs specially for women. These women's cells not merely mobilise and campaign among women, seek their support and membership for the party's issue during elections as well as normal period, but also guide often take-up issues concerning women. The parties also take stands on women's issues, organise rallies and demonstrations, pass resolutions, lobby with and pressurize the Govt. for specific policies. Women are participating in these actions in great numbers and have even courted arrest on issues like sati, Muslim women's right to maintenance, rape incidents, violence and police excesses on women.

Consciousness of Political rights:

A very small number of women (less than one-fifth) have political awareness.

Of the women having franchise, about three-fourths exercise it. Interestingly enough, a sense of an outing rather than a real interest in politics motivates women to vote .

Voting behaviour of women is neither linked with political mobilization nor with political socialization but with their husbands political beliefs and attitudes.

The liberal theory of elections emphasizing the rational choice or preference of the candidate or the party for which an individual voter votes is not valid in describing the voting behaviour of women.

Women generally are not the active members of any political party; only few women support some party. From the above findings, the conclusion seems to be that the awareness of rights does not ipso facto raises women's status, nor unawareness lowers their feeling of satisfaction (with their status). The

main barriers in the awareness of rights are: illiteracy, excessive involvement in domestic chores, household constraints (that is, attitudes of husband and in-laws), and economic dependence on males.

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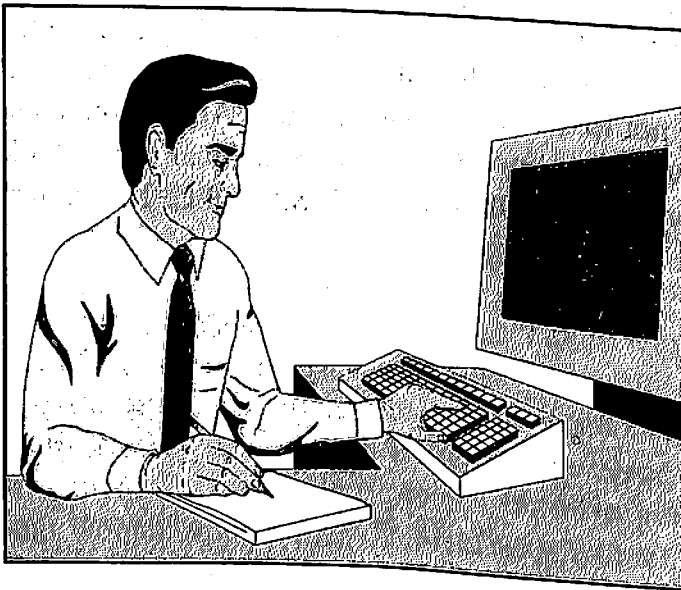
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IMPORTANCE OF REMOTE SENSING APPLICATION

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More scientific and technically innovated instrumentations have more importance for application in different fields. The remote sensing is like a science and technology for getting more real information about the material objects on the earth's surface made at a far distance without coming into physical contact of its objects. Therefore, in sense modern world has been synthesised into small things where we can be visualised. It is the science of techniques and arts for collecting more information about an object or phenomenon through the analysis of data



acquired by a device that is not in contact with the object area or phenomenon under investigation. Through the site of angles, remote sensing can be taught as a reading process using various sensors, silently, peacefully and remotely collect data that may be analysed to gather information about the selected object area. To far distance (remote areas) of the space silently collected data can be of many forms, including variations in force distributions, acoustic wave distributions or electromagnetic energy distribution. Remote sensing is the best technology and widely accepted by the advanced

and developing countries of the world "as an effective scientific tool for geographical research and also for the application of regional developmental activities. As a technique of acquiring data and information about the real world, it has gained paramount importance in the geographical and allied sciences". The two basic requirements of remote sensing are platform and Sensor. Sensor Record electro-magnetic radiation that is reflected, emitted by the earth's surface. Sensors are carried out by the three platforms or Matforms. They are (a) Ground borne (b) Air born platform and (c) Space borne platform.

Ground borne platform bears Cherry arm Configuration of remoter's remote, sensing van and tripod are the commonly used devices. They have capability to view the object from different angles. Air borne platform can be classified into baloon based and air craft based platform. Air craft generally used as remote sensing platform for obtaining photographs. In India there are four types of aircrafts as (i) Dacota (ii) Avro (iii) Cessna and (iv) Canberra using for remote sensing operators. The artificial Satellites are the

space borne platform, Satellites remote sensing are the Satellites which are used to acquire familiar and accurate data about the renewable and non renewable resources of the earth surface. Indian remote sensing setellites were mainly developing since 1980 onwards.

Generally we can find two kinds of methods in remote sensing application - one is areal remote sensing and other is satellite remote sensing. In the remote sensing application the areal photographs are taking important role. Naturally the areal photographs are taken from aircraft and image photographs are taken from satellites. Both the photographs of remote sensing playing an everincreasing role in cartographic mapping on various scales and in the evalution of natural and cultural resources of a region.

The characteristics of areal photography implies its importances as mentioned below-

(a) Availability of photographs could be obtained at different scales.

(b) Areal photography is cheaper and non exaustible as like field survey and it is more accurate.

(c) From the synoptic veiwpoint Areal photographs enable to detect small scale features and spatial relationships which are not evident on the ground.

(d) Areal photography is not a time consuming matter and it is a record of earth's surface at one point of time and can therefore be used as a historical record.

(e) Areal photographs are sensitive to radiation in a wave lengths that are even outside the spectral sensitivity range of human eyes.

(f) From the stereographic viewpoint of the earth's surface features can be obtained in three dimentionally i.e. horizontally, widely and vertically.

Satellite remote Sensing is as like to a scanning system. The image system that sweeps across the terrain complexes and produces images. Generally the scanners use a rotating mirror to scan the ground line by line, advancing in the direction

of movement of the platform. Basically "the ground image reflected from the mirror is then split up into different narrow spectral bands. The ditector convert the energy received in different bands into electrical signals or digital numbers. These data or numbers are transmitted to a ground receiving station and subsequently processed in a computer or data handling system".

The characteristic importance of application of remote sensing is to interpretation, analysis and monitoring for different aspects of the earth's photographic features. Those mainly based on areal photographs and satellite imagery maps.

An ideal remote sensing system can be utilised upon the basic following components--

1. An uniform energy source
2. A non interfering atmosphere
3. A series of unique energy/matter interaction at the earth's surface.
4. A super sensor
5. A real time data handling system and
6. Multiple data users.

On the otherhand the real remote sensing system can be characterised upon their recognised qualities. The energy source that all pas-sive remote sensing system relay on energy that is either reflected or emitted from earth surface features. Oviously the solar energy vary in respect of time and location. Different earth surface materials emit energy to varying degrees of efficiency, so it deal with relative energy units sensed at any given time and location.

The atmospheric components generate problems to introduced variation of energy source. As a result the varition of energy source effects'on wave lengths involved so, the atmosphere always modifies the strenght and spectral distribution of the energy received by a sensor.

The remote sensing could be simple if the interaction occurs at the earth's surface materials reflecting or emitting by the source of energy in a unique . It should be mentioned here that there might not be any "Super sensor" in the remote sensing

and might not be a single sensor sensitive to all wavelengths, but all real remote sensors have fixed limits of spectral sensitivity. They have a limit on how small an object can be still be "seen" by a sensor as being separate from its surrounding.

In sense there is a capability to generate data far exceeds to handle these data. Data are commonly transmitted or converted to digital code and storage in a digital format. It can be easily manipulated mathematically and statistically. It is generally agreed that we can consider it as a manual image interpretation producers or computer-assisted analysis.

The multiple 'data' generated by remote sensing producers became 'information' only if and when some one understand their generation knows how to interpret them and knows how best to use them.

" A through understanding of the problem at hand is paramount to the productive application of any remote sensing methodology, Also no single Combination of data acquisition and analysis procedures will satisfy the needs of all data users".

The successful of remote sensing application can be summerised as –

(1) at a minimum clear defination of the problem at hand.

(2) evaluation of the petential for addressing the problems with remote sensing techniques.

(3) identification of the remote sensing data acquisition procedures appropriate to the task.

(4) determination of data interpretation procedures to be employed and the reference data needed and

(5) identification of the criteria by which the quality of information Collected can be juged.

Important data analysis is carried out in different ways for different purposes in modern time for remote sensing application. Suppose to analyse digital library data automated features data base, automated features extraction of maps, semi automatic features extraction, automatic change detection, knowledge base building fuzzy, logic

fuzzy, operators decession making of GIS, wave length, interferrometry, virtual reality of mapping, neural networks, artificial intelligent agents of Computers etc. are getting loaded with various functions and networking with the tremendous amount of advanced functions are available in these aspects.

Importance for the application of remote sensing techniques are characterised for its monitoring, observing interpretation and analysis of different aspects of the earth's surface features at various categories. The success of many applications of remote sensing is improving considerably by taking a multiple view approach to data collection. There are different faces of areas of remote sensing on the surface of the earth where it denotes in different manner as below precisely describ.

1. Tree species can be identified by their shape and form of branches, Shadow often provide a profile view, which help in tree identification.

2. Sizes in many cases the length, width, height, area, or volume are essential to accurate and Complete interpretation.

3. Tone - different objects reflect and emit different amount and wavelength of energy. These differences are recorded as tonal, colour or density variation in record.

4. Shadow can help the interpreter for they reveal invisible silhouettes but late some details provide information on size and shape of building etc. which is not apparent from the image of building alone.

5. Pattern is characteristic of many man made subjects and of some natural features.

6. Texture-the visual impression of roughness or smoothness created by some images are often valuable clues in interpretation. Tree size is often interpreted on the basis of texures.

7. Site+location of objects with respect to terrain features or other objects is also helpful.

8. Association- Some objects are commonly

associated with other objects that tends to indicate or confirm the others.

9. Resolution – it depends on many things but always places a practical limit on interpretation.

Remote sensing applications occurs in many fields suppose in the interest of geological studies it utilise for mapping of major geological rock units, condition of rocks types, mapping and delineation of unconsolidated rocks mapping of igneous intrusives mapping of recent surface volcanic deposits, search for surface guides for mineralization, delineation of regional geological structures mapping of geomorphological landscape as relief and slope points bars, sandbars, bank erosion and channel shifting, landform developed due to climatic controls weathering pattern on landforms, coastal geomorphic features etc.

The remote sensing technique has been utilised for determination of waterland boundaries, measurement of sediments and turbidity pattern measurement of water depth, to assess major watershed characteristics, study of river morphology river banks and coastal erosion, mapping of flood and flood plains, determination of irrigated fields and determination of areal extent of snow and snow boundaries etc.

It is easy to classify soil map and soil series with its associations, soil conservation, soil moisture, forestry and types of agriculture in the remote sensing application. These information can be readily, easily and accurately obtained by using aerospace data products.

The spatial distribution of land use / land cover categories and pattern of their changes optimum utilization and management of land resources of any country or region can be studied by the application of remote sensing techniques. Imperative need of identification of resource location and assess the resource potentiality in order to enhance development for the welfare of the human society.

Remote sensing provides reliable and up to

date information about the extent of forest cover, types of forests, magnitude and distribution of forest hazards such as deforestation, shifting cultivation fire and diseases. In the study of marine science, remote sensing is used to monitor sea-waves, sea current coastal water pollution to detect the fishing surface area accordingly temperature and salinity of the sea and ocean water.

For the meteorological purposes it is used basically for forecasting of weather and to identify flood hazard areas and again some advanced countries some satellites are also placed in the space for investigating spy purposes in favour of security.

Remote sensing application takes place in a good sense in relation to study of Geographic Information System (GIS). It is a computer based multi parameter spatial, physical socio-economic data analysis system. The GIS may be visualised by putting together several thematic maps on different themes such as soil, forest, agriculture, hydrology, geology, network communication system. Remote sensing analysis can be improved by the verification data from geographical information system. The accuracy of classification of remote sensing data can improve significantly if additional information beside the spectral reflectance in different wavelengths is used to classify the image. The GIS has two principal components (a) a map or spatial data component and (b) a relational database management system (RDBMS) RDBMS contains information (data base) regarding different spatial position in the thematic maps. The map to be analysed are loaded to the computer through digitizer, scanner or can be generated in the computer.

Moreover remote sensing is used in the field of urban and regional planning. The planners of urban development and regional and economic planners require nearly continuous acquisition of data to formulate models and programs to give the shape according to the government policies. The social, cultural, economic policies and programs

domain to the context of environmental and natural resource planning. Air photographs provide the population size and estimation housing quality traffic and parking complexes, site and situation for advance selection for establishment. Environmental factors that are interpretable from areal photographs that have been found to be useful in housing qualities studies include house types and size building density, building setback, street width and condition.

Proximity to parkland and proximity to industrial landuse. The planners are able to give the proper shape and size of a principal river valley basin for getting more opportunities by generating a multipurpose river valley project through the interpretation of aerial photographs of remote sensing application. Air photographs can assist for regional planning in various location and siting problems such as transportation route location, sanitary landfill site selection, power plant siting, market

area selection and transmission line location.

In short, as it were, remote sensing technology is gradually becoming a meaningful aspect towards the modern society, it is an important and very useful sophisticated media through which within a moment the earth planet can be seen and provide more knowledge by the remote sensing application and lead to us for an important inventor of the new generation of the new world.

Consulted Books and journals

1. Remote sensing application in geography.
2. Journal of the Indian society of Remote sensing vol. 26, No-3, sept. 1998.
3. Lillesand- Kiefer, Remote sensing and image interpretation.
4. Bookhive's UGC NET/SLET (National Educational Test/State Level Eligibility Test (for all testes) Geography.

