CHAPTER III

LIVELIHOOD CAPITAL

The changes in the livelihood capitals during the time period is discussed while analysing the livelihood of Assam in the context of vulnerability. It showed increase or decrease in access to livelihood capitals or its change in the composition. In this chapter the present asset status of the state and the country is the main subject matter. The objective is to understand the present living condition of the people in Assam and to estimate the gap between the national average and the state. The capitals which are also termed as assets are the basis of DFID framework of sustainable livelihood on which livelihoods are built. Livelihood can be described as a combination of resources used and the activities undertaken in order to live. These resources consists skills and abilities (human capital), land, savings and equipment (natural, financial and physical capital) and formal support groups or informal networks that assist in the activities being undertaken (social capital) (DFID Guidance Sheet). An accurate and realistic understanding of people’s strength is crucial to analyze how they endeavour to convert their asset into positive livelihood outcomes. A single category of assets cannot be sufficient on its own to yield all the many and varied livelihood outcomes that people seek. The combinations of these resources are required by people for pursuing livelihood strategy and to achieve livelihood outcome. Considering the constraint of availability of data and for other limitations livelihood capitals - financial, physical and human capital are selected for the study.

3.1 Financial capital

The disparity of rural and urban sector in financial capital is carried out on the basis of the sixth AIDIS report of January – December, 2003 (as on 30th June, 2002) conducted by the NSSO on its 59th round (The lists of table are given in Annexure C).

The present financial status is discussed on the basis of

a. Average value of assets (AVA) in absolute terms
b. Percentage distribution of households by household asset holding
c. Average value of assets by occupation and by MPCE
3.1.1 Average value of assets in absolute terms

In absolute terms the urban asset value is higher in the country and in the state. The national asset values are higher in both areas. Rural Assam is poorer than other rural areas of the country as asset value of rural Assam is 45% less than India. In urban Assam the asset value is 90% higher than rural. But the percentage difference of urban between the nation and the state is less (34) as compared to rural (Table 5.1). Above figure implies that the difference of asset value between the nation and the state is much higher in rural Assam. Thus people in rural Assam are poorer in asset holding as compared to the average of other state and they are more vulnerable to shocks and stresses. B.K Sharma and N.T Krishna on their paper ‘Assets and Liabilities of household sector – an interstate comparison commented that the eastern States like West Bengal, Assam, Orissa appeared to remain aloof from the impact of overall prosperity in the country. They made a detail comparative study on asset value of rural and urban areas of different states of the country on the basis of AIDIS Report of 2002. As stated out of 21 States/U.Ts., taken up for analysis, it was found that in urban 8 States are below the national average and rests of the 13 States are above the national average cut-off mark. On the other hand in rural 11 States were below national average and 10 are above the mark. They observed that despite the reported I.T. boom in the southern States viz. Andhra Pradesh, Karnataka, Tamil Nadu and the presumed increase in personal incomes, enlargement of urban middle class, large scale investment in private/individual real estate as the average value of assets, both in urban as well as rural, remained below the national average.

3.1.2 Percentage distribution of households by household asset holding

In rural Assam we find a positively skewed asset distribution among the households where percentage of households gradually declined from the second category of asset. In urban no such fixed pattern in asset distribution can be noted as almost equal percentage of households are distributed among the asset holding classes (Table 5.2). Highest concentrations of households are among the first two categories of asset
holding in rural and urban Assam. Almost half of the percentage of households in rural has an asset within a lakh whereas in urban the percentage is less (42). In urban 18% of households have asset value of more than 4.5 lakh whereas only 4% of households has high asset holding. This clearly indicates higher percentage of households in rural has less asset value and in urban assets are distributed more or less evenly among the classes. It also indicates inequality in asset holding in rural Assam than urban.

In rural India the percentage distribution of household is generally positively skewed in the states where the overall AVA is low like Orissa, Andhra Pradesh, Chhattisgarh, West Bengal, and is negatively skewed in the states where the overall AVA is high like Punjab, Kerala, Jammu & Kashmir, etc. In urban India the distributions of households for states reporting low AVA values are generally positively skewed and are negatively skewed for the states with high AVA values.

3.1.3 Average value of assets by occupation and MPCE

A cultivator in the country has 248% of more asset than non cultivator. In urban areas a self-employed on an average, owned assets of 64% more than other category of households. Thus differences of asset holding in rural among the categories are much higher. Both the cultivator and self employed in the country has 50% more asset than Assam.

In rural Assam the differences in asset holding among the categories are less as compared to the national average. In urban areas the difference of asset value between the two categories are insignificant (Rs. 1160 only). Thus in urban Assam almost equal amount of asset is owned by the two major categories but in rural area the cultivators own two and half time more amount of assets as compared to non cultivator. It is to be noted that in both cases the difference of assets among the household types are less as compared to the other states. Both in the country and state the difference of asset holding among the household types are higher in rural and less in urban (Table 5.3).

*Assets value by MPCE class*

The pattern of change in assets with MPCE is negatively skewed in both areas of the state and in the country. Richest households of the country, in rural, have asset value of
358% more than poorest category. Between the MPCE classes, in the country the steepest rise is noted from the upper middle class to the rich in both areas. In urban India the gap between the richest and poorest class is almost 200% more than rural India.

In Assam the MPCE of richest household in rural area has asset value of about 2.29 lakhs which is nearly 225% higher than poorest household. The asset difference among the richest and poorest class is significantly higher (770%) in urban Assam. The rise is steepest among the poorest class in urban to the middle class (425-665). In urban Assam the difference of asset holding is higher among the poor (Table 5.3.1). In the comparison of the asset value of poor class between rural and urban it is found that the poor class of rural have higher asset value than urban. The gap between the two extreme classes is significantly high in urban Assam.

3.1.4 Composition of asset items

Physical assets include land, building, livestock, agricultural implements & machinery, non-farm business equipment, transport equipment and household durables while shares, deposits, cash & kind dues receivable and cash in hand were considered under financial assets. At the All India level, land & building taken together constituted for 87% share in the total value of assets. In rural, land accounted for 63 percentages and buildings 24 percentages. Similar trends were observed in the urban areas as well. In the state also land is the dominant item of asset in both rural and urban areas but percentage share of land in rural is much higher (52.4%) than urban (39.8%). In urban not a single asset item dominated the basket but building and others contributed much higher as compared to rural (Table 5.4). The share of other (all physical assets excluding land and building) is higher in urban and it is found that the percentage share in urban of other and building is almost same (30%). Among the other items the durables are the most significant item as in all India average and in urban Assam (Table 1.4.5 and 1.4.6). The survey made by B.K Sharma and N.T Krishna, revealed that the proportion of durable goods in the basket of average value of the household assets for urban is quiet significant as it occupies third position after land and buildings in all States/UTs except Jharkhand. The probable reason for sizable share of durable goods in the AVA of household as stated by them is market liberalization which results in the availability of
wide variety and price range. Taking the household type separately in rural Assam the cultivators share of land and non cultivators share of building and other is higher. On the other hand the self employed and others have almost equal percentage of share on land and in other items. The percentage share of asset items in basket has marginal difference among the categories in urban areas (Table 5.4.1).

3.1.5 Debt - Asset ratio

In urban Assam the debt asset ratio is more by 0.33% as compared to rural Assam. In all India average it is found to be higher in rural areas by 0.02% (Table5.5). A contrary picture is evident here. In India the debt asset ratio of rural is higher but in Assam the urban people has higher debt asset ratio. Among all the states, rural Assam has significantly low average loan. In previous chapter while discussing the change in indebtedness and average amount of loan the vulnerability of rural is found to be higher. Thus though at the point of time the ratio is low but changes over time period shows an increasing trend.

Present status of financial capital in Assam and gap with the national average:

- People in rural Assam are poorer in asset holding as compared to the average of other state.
- Higher percentage of households in rural has less asset value among the asset holding classes and in urban assets are distributed more or less evenly in Assam.
- Both in the country and state the difference of asset holding among the household types are higher in rural and less in urban. The percentage share in urban of other items and building is almost same in state. Among the other times durable had a sizeable share both in the state and in the nation. As compared to the country the gap of asset between the richest and poorest (on the basis of MPCE) is significantly high in urban Assam.
- The debt asset ratio in urban Assam is significantly higher than all India average.
3.2 Physical capital

At household level dwelling unit, water supply, sanitation, hygiene and energy is taken into account to know about the present status of physical capital supporting livelihood in rural and urban areas. An all India survey on condition of drinking water along with sanitation and hygiene prevailing during the Jan- June 98 was carried out as part of 54th round of NSS to make an enquiry on certain characteristics of availability and use of drinking water and on some condition of sanitation and hygiene. The report is taken into account for detail study. In addition to it ‘Morbidity, Health Care and the Condition of the Aged, of NSS 60th round gives a recent record of basic amenities like drinking water, dwelling unit use of energy etc.

3.2.1 Drinking water

There is no doubt that water and sustainable livelihood is inextricably linked. In modern period water defines human, social, and economic development. It is a fact that without adequate supplies and management of water resources, socio-economic development simply cannot take place. Studies indicate that in the present scenario, people are moving towards crisis of water supply.

The present status of drinking water is studied on the basis of

a. Sources and sufficiency of drinking water
b. Quality of water
c. Personal hygiene in relation to water.

3.2.1.1 Sources and sufficiency of drinking water

In India the major source of drinking water is tubewells and handpumps. More than half of the households in rural India drinks water from tubewells and handpumps. Tap is used by 25% of households, pucca wells for 14% and all other sources taken together account for only 5% of households. In urban India tap is a dominant (68%) source of drinking water. Rest of the households mainly depend on tubewell/ handpump and pucca well.
In rural and urban Assam tubewell/handpump and pucca well is a major source of drinking water. In rural and urban area 81% and 66% of the population is dependent on the stated sources respectively. In urban tap is additional source supporting 31% of population (Table 6.1).

In the country only about 31% of rural and 66% of urban households reported their principal source of drinking water to be within their premises (Table 6.2). Further, about 60% and 32% households in rural and urban areas respectively were within 0.2 km from their principal source of drinking water. 47 percentages of people in rural Assam brings water within 0.2 km distance and very insignificant percentage of households has water within premises. But in urban area 57% get water from outside dwelling but within premises. In rural area 71% of people dependent on tap have to travel less than 0.2km but in urban the position is better as almost 80% of person dependent on tap have water within dwelling or within premises. Households of urban Assam mostly have water within premises and travel less distance for water. Taking the distance of the source, the position of drinking water in Assam is much below the national average both in rural and urban areas.

In rural Assam insufficiency of drinking water is felt for two to five months. Taking the sources individually in rural area almost 6% of household dependent on tap and 76% on spring do not get sufficient water (Table 6.3). Similarly the source tank, pond does not give sufficient water to 11% for five months. In urban areas the condition is much better as very insignificant proportion of people dependent on tap get insufficient water for two to four months. In the country an estimated 13% of rural and 15% of urban households and in Assam 26% in rural and 5% in urban did not get sufficient drinking water from their principal sources.

During the period of insufficiency of water both in rural and urban areas household depend on neighbour or take up other measures. In India other measures are more dependent source used during insufficiency of water (Table 6.4). In Assam 44% of rural household and in urban India 17% do not take any measure. Rest obtain water from neighbour (32) and take up other measures. In urban Assam 68% depend on other measure and rest take support from neighbour during insufficiency. Less than 1% gets water in rural from charitable bodies during crisis in rural areas. Role of local
authorities are nil both in rural and urban. People also do not purchase water in this period both in rural and urban.

3.2.1.2 Quality of drinking water

The shortage of water in the country is slowly affecting the lives of people as well as the environment around them which in turn is affecting the quality of water. World Bank (1995) has pointed out some issues on quality of drinking water which need urgent attention:

- As a result of excessive extraction of ground water to meet agriculture, industrial and domestic demands, drinking water is not available during the critical summer months in many parts of the country.
- About 10 per cent of the rural and urban population does not have access to regular safe drinking water and many more are threatened. Most of them depend on unsafe water sources to meet their daily needs. Moreover, water shortages in cities and villages have led to large volumes of water being collected and transported over great distances by tankers and pipelines.
- Chemical contaminants namely fluoride, arsenic and selenium pose a very serious health hazard in the country. It is estimated that about 70 million people in 20 states are at risk due to excess fluoride and around 10 million people are at risk due to excess arsenic in ground water. Apart from this, increase in the concentration of chloride, TDS, nitrate, iron in ground water is of great concern for a sustainable drinking water programme. All these need to be tackled holistically. With over extraction of groundwater the concentration of chemicals is increasing regularly.
- Ingress of seawater into coastal aquifers as a result of over-extraction of ground water has made water supplies more saline, unsuitable for drinking and irrigation.
- Pollution of ground and surface waters from agrochemicals (fertilizers and pesticides) and from industry poses a major environmental health hazard, with potentially significant costs to the country.
The World Bank has estimated that the total cost of environmental damage in India amounts to US$9.7 billion annually, or 4.5 per cent of the gross domestic product. Of this, 59 per cent results from the health impacts of water pollution (WHO).

In urban India higher percentage (91%) of households as compared to Assam (60%) reported drinking water served by their principal sources to be of satisfactory quality. But in Assam marginally higher percentage (62) of rural people are satisfied with the quality of water. It is clear that relatively the position of all India average is much better than Assam.

Highest percentages of rural household get satisfactory water from tap and tank-pond whereas in urban tap and well give satisfactory water. Water of tube well/hand pump and well in urban is more of poor quality for the presence of iron and other mineral in water than rural areas. 3% of urban and 2% of rural household knows the water they are drinking is polluted. 7% in urban and 3% in rural consume water which taste bad for unknown reason. Equal percentage of rural and urban household (5%) consumes cloudy water for unknown causes. Equal percentage (20) of rural and urban household drink clean water but it contains excess of iron or other mineral (Table 6.5).

3.2.1.3 Personal hygiene in relation to water

Based on 54th round three aspects are considered to indicate the attitude of the members towards personal hygiene in relation to their drinking water - treatment of drinking water, material of main container for storage of drinking water and mode of taking out water from container. As far as treatment of water in Assam, half of the population in urban and 27% of rural population treats water before drinking. In the country comparatively less percentage of households in both rural (20) and urban (38) treats water (Table 6.6).

The water collected by a household for drinking water is sometime made potable after some prior cleaning or treatment. Prior cleaning or treatments of water before drinking are good indicator of health awareness. It would be therefore of interest to examine the proportion of households resorting to cleaning of collected water. In rural India, about 18% of households reported to have filtered their drinking water but very few households reported to have chemically treated, or boiled, water before drinking. In urban India, the position is better where the percentages of households reporting boiling and filtering of
drinking water before consumption are 11% and 35%, respectively. In rural Assam 30% of household filter water by cloth and other process whereas in urban 44% use other processes to filter and less than 1% use plain cloth. In urban boiling is done by higher (28) percentage than rural (22). Chemically treatment of drinking water is done by some proportion of households in rural and urban areas of Assam (Table 6.7).

In urban Assam, Plastic (27%), Galvanized iron (25%) and Stainless steel (22%) are the major sources used for storing water in urban. In rural area earthen pot (44%), plastic (13%) and Galvanized iron (19%) is used to store water. Few percentage of household takes up other metal & non metal, brass, copper etc. In India relatively higher percentage of households use steel, brass and other metal for storing water. 3% of rural and 1% of urban do not have water storage. Both in rural and urban almost equal percentage of household (9 and 7) take water by dipping in a vessel without a handle. In Assam highest percentage of households takes out water with handle. Contrary to it in India almost more than 50% of households take out water without handle in both areas. Pouring water out and using tap are next important ways used both in rural and urban Assam (Table 6.8 & 6.9).

Present status of drinking water in Assam and gap with the nation:

- Taking the distance of the source, the position of drinking water in Assam is much below the national average both in rural and urban areas. Households of urban Assam mostly have water within premises and travel less distance for water. Rural households of Assam have higher insufficiency of water. Household of urban Assam has higher sufficiency of water as compared to the national average. Thus quantitatively urban is in better position regarding drinking water.

- Risk of fluoride and arsenic is among 80 million people in India. In urban Assam the quality of water is found to be poorer than rural. In rural the sources of drinking water are diverse but comparably less of them are dissatisfied with quality. 71% of household is satisfied with quality of tap water in urban. Rest of them drinks it in spite of having bad taste, polluted, cloudy, iron and other defects. Tube well, hand pump and well are important source of water in urban but here also less percentage of household is satisfied by its quality as compared...
to rural. These sources give poor quality of water to 40% of household for excess of iron or other mineral in urban areas. Qualitatively urban households of Assam are more dissatisfied as compared to rural.

- Higher percentage of urban household in Assam treats water. Treatment is more done by better method in urban. Other points indicate that urban Assam has better personal hygiene in relation to water than rural Assam and also as compared to national average.

### 3.2.2 Dwelling unit

Dwelling unit is one of the key determinants of living status. Among the physical capital one of the factors indicating the condition of living is structure of dwelling. It can be seen that more than half of the households in the rural areas resided in semipucca or kutcha structures in the country. Pucca structure is much more common in the urban areas with 84 per cent of the households reporting it. In urban Assam the most dominating dwelling units are pucca and semi pucca as almost 90% dwell on such kind of structure. In rural areas on the other hand almost 80% have kutcha and semi pucca house. Only 10% of urban have kutcha house but in rural it is found that 43% of households survive in kutcha house (Table7.1). The condition of dwelling unit in the country is much better in both areas as compared to Assam as higher percentage of household is pucca and semi pucca in India.

### 3.2.3 Sanitation & hygiene

The status of sanitation and hygiene is studied on the basis of

- a. Percentage of latrines and bathroom and type of latrine
- b. Garbage and Drainage
- c. Problem of flies, mosquitoes and foul odour/ Change in the intensity of the problem.

#### 3.2.3.1 Percentage of latrines and bathroom and type of latrine

Percentage of households without latrine and bathroom is much higher (more than 80%) in the rural areas of the country. In the country a vast majority (more than 85%) of households reported their latrines to be located within their premises itself. The position
of Assam is reported much better as compared to the country. In Assam urban households has higher percentage of bathroom and latrine and latrines are mostly of septic tank type. The percentage of latrine within premises is also is marginally higher in Assam than India. In the state the position of sanitation is much better in urban then rural (Table 8.1 and 8.1.1). Taking the sharing of the principal source of drinking water, bathroom and latrine separately for rural and urban area in Assam it is found that comparably higher percentage of household in urban share latrine, bathroom and principal source of drinking water with restricted number of household (Table 8.1.2).

From the above figure though present status of sanitation in urban sounds better but D.S. Kapur, 2007 argued that sanitation coverage is almost same for both urban and rural India. He argued that given a large population of slum dwelling are unaccounted for urban populations and their exclusion of these from formal urban sanitation and sewerage systems makes difference in sanitation coverage. He estimated that less than 50% population in urban have access to effective sanitation. He finally stated that the situation is grim for both rural and urban India. Based on the NFHS data of 2005-06 the official coverage for rural sanitation is 26% and for urban it is 83.2%. The overall sanitation coverage as recently announced by the government is 48%. Urban sanitation is emerging as a major challenge for India for the sheer concentration of populations in towns, coupled with poor drainage and the impact of poor sewerage affecting safe drinking water.

3.2.3.2 Garbage and drainage

In Assam, Table 8.2 indicates only 22% of household in urban have municipal or private arrangement for disposal of garbage. Rest of the household disposes garbage by themselves. About half of the households only have dumping spot in urban. Without any proper arrangement it is quite obvious that urban hygiene is in the challenging state. Diarrhoea and other communicable diseases are thus common among the children of Assam (Assam HDR, 2003). The poor drainage system in urban Assam is evident as only 4% have covered pucca drain and very insignificant percentage have underground drain. In urban 35% of households does not have drainage in Assam (Table 8.3). Poor status of garbage disposal system and drainage is very clearly evident both in the state and in country.
3.2.3.3 Problem of flies, mosquitoes and foul odour and change in the intensity of the problem

In the country among these three problems, people reported their concern most frequently for mosquitoes (84% in rural and 90% in urban areas) followed by that for flies (69% in rural and 66% in urban areas). Half of the households in urban reported their concern about problems related to foul odour. In Assam higher percentage of urban is found to have expressed more concern on the problem of flies and foul odour as compared to rural. Equal percentage of household (84) expressed concern about the problem of mosquito in rural and urban. In last 5 years, rural has reported to have more increase in the problem of flies and mosquitoes as compared to urban. Foul odour is problems which have increased for urban areas more than rural (Table 8.4 and 8.4.1).

Thus it is observed that both in the country and in state more than half of the urban households have problems of mosquito, flies and foul odour. Increasing cases of malaria, dengue, diarrhoea, jaundice etc are responsible for these problems in urban livelihoods. As discussed above improper drainage, poor sanitation in slum, increase in chal/bustee and no arrangement of garbage disposal are common in urban areas. This finally induces for unsustainable livelihood in urban areas.

Present status of dwelling unit/sanitation and hygiene in Assam and gap with nation:

- In urban Assam the status of dwelling unit is much better. But as compared to the other state of India both in rural and urban Assam the status is poor.
- In urban Assam the status of sanitation is better than rural for higher number of bathroom and latrine. The latrines are also mostly septic in urban Assam. The position of India both in rural and urban reported poorer than Assam.
- Very insignificant difference is noted between the country and state in the position of drainage and garbage. In urban households very insignificant percentage has fixed arrangement of disposal of garbage. A very poor drainage system is noted in urban Assam. This gets very clearly reflected in the problems of mosquito, flies and foul odour. Very high percentage of urban households in the country and state has the problem of mosquito (84-90). In rural Assam the
problem of flies and mosquitoes increased whereas in urban the problem of foul odour has increased.

3.2.4 Energy

The present status of energy is discussed on the basis of

a. Sources of energy used for cooking and lighting
b. Sources of energy by household type.

3.2.4.1 Sources of energy used for cooking and lighting

Firewood and chips is the most important source of energy used for cooking both in rural India (75%) and Assam (88%). More than half of the households in urban India use LPG (59%). In Assam higher percentage (72) of households uses LPG. Firewood and chips are still used by more than 15% of urban households in the country and state (Table 9.1).

In the country electricity is used as the main source for lighting by 56% of rural households and 93% of urban households. For lighting in rural Assam the dominant source is kerosene, as 67% of household are dependent on it. Electricity is only available to 32% of household in rural, which is a dominant source in urban as 91% are dependent on it and rest of the household are dependent on kerosene (Table 9.1). Higher percentage of people in India has electricity as compared to the Assam.

3.2.4.2 Sources of energy by household type

The percentage of households using firewood and chips are highest (99%) for agricultural labour households. In rural Assam from Table 9.1.1 it is found that LPG is used mainly by the household type categorized as ‘other’ for cooking. More than 90% of other labour and self employed in agriculture use firewood and chips. Self employed in non agriculture use both firewood chips and LPG. In the state 20 % of casual labour do not have fix arrangement for cooking. Rest of the categories in urban of 4 to 6% does not have arrangement. In rural such condition does not exist with any category.

From Table 9.1.1 it is observed that in Assam 83% of agricultural labor depends on kerosene for lighting. In rural India, the use of electricity for lighting is most common
among ‘other’ type of households followed by self employed in non-agriculture. The use of electricity and kerosene is more or less equally common among other types of rural households. ‘Other’ has highest dependency on electricity for lighting as compared to rest of the household type in rural areas. In India the percentage of households using electricity for lighting is highest for regular wage/salary earning households and lowest for casual labour.

In urban Assam more than half (55) of the wage/salary earner have kerosene as source for lighting. 80 to 96% of self employed, casual labours, other regular worker have electricity as primary source of lighting.

Present status of energy in Assam and gap with the nation:

- The present status of electricity on the country is much better than Assam.
- Firewood and chips is the most important source of energy used for cooking both in rural India (75%) and Assam (92%). Relatively higher percentage of household in urban Assam as compared to the country uses LPG (57%). Firewood and chips are still used by more than 20% of urban households in the country and state.
- Casual labour mostly does not have cooking arrangement and they do not have electricity too in urban Assam. Regular worker are in better state both in the country and state as they mostly use LPG for cooking and have electricity.
- Highest percentage of agricultural labour use firewood and chips for cooking and kerosene for lighting. In rural ‘other’ uses highest percentage of LPG in cooking and has electricity. Other labour and self employed in agriculture are though highly dependent in firewood and chips for cooking but for lighting their source is not only highly concentrated in kerosene but 28 to 30 percentage of them use electricity for lighting.
- In urban areas wage/salary earner uses mostly firewood chips for cooking and they are also the highest in using kerosene for lighting.

3.3 Human Capital

"Human capital represents the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their
livelihood objectives" (DFID, 2000). At the household level it varies according to household size, skill levels, leadership potential, health status, etc. and appears to be a decisive factor as it makes use of any other type of assets. In the study health and nutrition are the two of the major element selected for indicating about the quality of human capital of the area.

3.3.1 Health

*The present status of health is studied on the basis of*

a. Morbidity, Infant Mortality Rate & immunization of children
b. Treatment of ailments
c. Medical and other related expenditure.

3.3.1.1 Morbidity, Infant Mortality Rate & immunization of children

The prevalence of morbidity for the purpose of the survey is termed as proportion of ailing persons (PAP). There is a well-established direct association between morbidity reporting and level of health consciousness. Morbidity and mortality reflects the health attainment. Morbidity and loss of life are important for evaluating livelihood outcomes or for understanding livelihoods. In Indian context the pattern of both runs counter to each other. For example Kerala has lowest mortality but highest incidence of morbidity in the country for acute as well as chronic ailments (HDR, 2001). Table 10.1 clearly shows that morbidity is higher in urban India but commencement of ailment has marginal difference. On the other hand in the state the commencement of ailment is higher but there is no difference in morbidity between rural and urban.

In India the morbidity (PAP during last 15 days) differed between the male and female population by 1 percentage point in rural and 2 percentage points in urban. The PAPs are found to be higher for children and much higher for the higher age groups – the lowest being the PAPs for the youth (age 15-29 years). The rural–urban differentials are also significant among the aged.

Insignificant difference of morbidity (PAP day before the survey) is between rural and urban Assam. As in the country children has higher proportion of ailment. In rural Assam almost equal percentage of male and female children are found sick. But in
urban male child is found more ill by 1%. An aged woman has higher morbidity than men. Rural aged women in the state are found more ill as compared to urban. It is noted that dependent population has higher sickness in rural and working population has higher sickness in urban. The proportion of female working population suffering from ailment is higher than male by 19%.

IMR is a widely accepted indicator of general health of a population and health care services available. Moreover the better the health care services, the higher is the level of health consciousness expected to be. Thus IMR has been taken as broad indicator of health conscious. In rural Assam the IMR is much higher than all India rural average but in urban the mortality is marginally less. It clearly indicates the health awareness in rural Assam is much low as compared to the nation.

The Universal Immunisation Programme initiated in 1985 sought to cover 85 percent of all infants against the six vaccine preventable diseases by 1990. The six diseases are polio, tetanus, whooping cough, diphtheria, childhood TB and measles. Children of urban areas are better immunised both in the country and state. Gender discrimination is almost absent in the state and in the country.

3.3.1.2 Treatment of ailments

Spell of ailment is a continuous period of sickness owing to a specific ailment. The percentage of spells treated ailments in urban Assam is not only higher (94) than rural but also higher than all India average. In rural Assam the spells treated is lower as compared to all India average (Table 10.2). Source of treatment is Government in rural and private in urban both in the state and in the country. Both in rural and urban Assam the reliance on Government hospital are higher than all India average for hospitalised treatment. The difference of reliance on public sector and private sector is significant in rural as 74% and 26% are dependent on respective sectors. Whereas in urban the reliance is 55% and 45% respectively on the sectors. The degree of reliance on private sector hospital in urban is though higher than rural but public sector also plays an important role for hospitalized treatment in urban area and thus there is insignificant difference on reliance between the sectors in urban.
To understand the difference, parity between the share of beds in government hospital and proportion of hospitalized cases treated in Government hospital is observed and they must be more or less equal. The deviation on the other hand is expected to indicate the differences in the performance of the institution. It is to be noted that in Assam the proportion of bed in Government hospital is higher than all India average but the proportion of hospitalized cases treated in public institution is less in rural and urban Assam (Table 10.2) than the proportion of beds in public institution (84%). The gap between the hospitalized treatment and proportion of bed is more prominent in urban than rural. The population per hospital bed in Assam is higher than India and the proportion of population depending on public hospital is much higher in Assam than India. Thus the performance of public sector is not as expected which keeps less hospitalized cases than percentage of beds and it is much below the expectation in urban areas than rural areas.

(The information relating to availability of beds for hospitalized treatment is taken from Directorate General of Health Services, Ministry of Health and Family Welfare, of the Government of India to know more clearly about the health care services available in the state. The data of 1991 is used in the report of NSSO: Morbidity, Health Care and the Condition of the Aged, Jan.-June, 2004 in this context. Population per hospital bed is a crude measure that does not distinguish between rural and urban location nor take account of the nature and perceived quality of hospitalization services that indirectly get reflected in the survey-based estimates being compared).

Proportion of persons hospitalized

Medical treatment of an ailing person as an inpatient in any medical institution having provision for treating the sick as an inpatient is considered as hospitalized treatment. Very insignificant difference between rural and urban Assam is noted in hospitalized treatment (Table 10.3). It is seen that in India the estimated proportion of hospitalized persons differed substantially between the rural and the urban area. In India about 3.1 per cent of the urban population is hospitalized which is higher than rural areas (2.3%)

In the state and on the country both in rural and urban area the highest percentage of persons hospitalized is in the age group of more than 60 years. In urban Assam higher percentage of persons hospitalized within the age group of 0-14 years and in 30-44 years as compared to rural areas.
3.3.1.3 Medical and other related expenditure

Medical expenditure included expenditure on items like medicines, bandages, plaster etc., fees paid for medical and para-medical services, charges for diagnostic tests, charges for operation and therapies, charges for ambulance, costs of oxygen and blood, etc. It is seen that the average total expenditure per treated ailment is Rs.285 and Rs.326 in rural and urban areas respectively at the all India level. In rural Assam the average medical expenditure on treatment is Rs.226 and in urban it is Rs.351 which makes the difference of Rs.125. We find thus the average expenditure in rural Assam is less than all India expenditure but on the other hand in urban Assam the medical expance is higher than India (Table 10.4.1).

Often ailment of a working member of the household causes loss of household income. Ailment of a non-working member too causes disruption of usual activity of the working member of the household, which in turn results in loss of household income. While for persons getting pay, either as regular salaried employee or casual labour, the amount of loss in income during the period of treatment is derived on the basis of pay that he/she was drawing before the hospitalisation/ailment; for the self-employed persons, it was imputed based on the proportionate average income (lost) during those days. For non-ailing members of the household who could not carry out their 'work' (economic activity) in order to attend to the ailing member, the loss of income for them, if any, is derived in the same manner and was also included in the loss of income of the household. Amount of such a loss incurred by the household during the reference period was collected in the survey.

Estimates of loss of household income shows the total burden on the household due to treatment of ailment. The all-India estimate of Rs. 135 is the loss of household income as depicted in the Table 10.4.2. It is seen that, on an average, in India a much higher amount is spent for treatment per hospitalised case by people in the urban (Rs. 8,851) than in the rural (Rs. 5,695). In urban Assam we observe that the loss of household income per treated person is much higher as compared to rural area. The loss in rural is Rs.69 whereas in urban it is Rs.116. Taking the expenditure on hospitalization separately it is found that loss of household income due to hospitalization in urban area is 67.21% more than rural areas.
Expenditure per childbirth

Table 10.4.3 gives the expenditure incurred per childbirth separately for the rural and urban areas. There was a perceptible difference in the expenditure incurred for childbirth between the rural and urban areas. In India for childbirth, this amount is Rs. 1,169 and Rs. 2,806 in the rural and urban, respectively. In the country the average expenditure per childbirth is higher in the rural govt. hospital (Rs. 1,165) than their urban counterpart (Rs. 994).

In average the expenditure in urban Assam per childbirth is 306% more than rural areas. Taking the sources separately for the state it is found that average expenditure in rural at Government hospital is higher than urban only by 25%. On the other hand the expenditure on private hospital in urban is 248% times a higher than rural. Thus a huge gap is observed in the expenditure between rural and urban areas.

Medical service and type of payment

Persons who are ailing do not always get their ailments medically treated and sometimes resort to self-medication, home remedies or no medical care. The percentage of ailing persons who got their ailments treated is found to be higher in the urban areas than in the rural areas.

The medical service can be categorized in four groups- surgery, medicine X-ray, ECG, EEG, scan and other diagnostic tests. Both in the country and state highest percentage of persons got medical service in medicine when they required. Rural ailing persons in much higher percentage as compared to urban did not receive all the medical services though they required. It is to be noted that in urban India higher percentage of ailing person as compared to urban Assam did not receive all the four services when they required. In surgery, ECG, X-ray, etc and in other diagnostic test more than 80% of rural ailing person in Assam did not receive medical services (Table 10.4.4). Among these only in medicine 17% of ailing person did not receive medical service but in rest 85 to 99 percentage did not get medical service both in rural and urban. In the country free services are taken more in medicine in both areas and in other services relatively higher percentage of people did not get service when required.
Ailing person in urban received more free and partly free services than rural. In urban free services for surgery is 3% whereas in rural it is ‘nil’. For medicine the percentage is 6 for urban and 3 for rural. For the rest two more than 1% of urban get free services whereas in rural it is less than 1%. In surgery rural ailing persons of 1% take the service and entirely take it by payment whereas in urban 3% take services for surgery and entirely take it free. In medicine service almost equal percentage 71 to 78 in rural and urban take service by payment. In last two services (X-ray, ECG, EEG, scan and other diagnostic tests) 10 and 20% of urban ailing person take it by payment whereas in rural the percentage is 6 and 12 respectively.

Present status of health in Assam and gap with the nation:

- In India percentage of morbidity is higher in both areas as compared to Assam. Urban India has higher percentage of sickness. In Assam no such significant difference is noted in morbidity. The sickness is found to be higher for children and for the higher age groups both in the state and in the country. In Assam dependent population has higher sickness in rural and working population has higher sickness in urban. There is marginal difference between the country and state in IMR. The IMR of rural Assam is much higher than urban.

- Spells treated ailments in urban Assam is not only higher (94) than rural but also higher than all India average. Dominant source of treatment is Government in rural and private in urban both in the state and in the country. Both in rural and urban Assam the reliance on Government hospital is higher than all India average. In Assam the proportion of bed in Government hospital is higher than all India average but the proportion of hospitalized cases treated in public institution is less in rural and urban Assam.

- The average medical expenditure in rural Assam is less than all India expenditure but in urban Assam the medical expanse is higher than India. In surgery, ECG, X-ray, etc and in other diagnostic test more than 80% of rural ailing person in Assam did not receive medical services Compared to rural and urban it is found that in urban ailing person received more free and partly free services than rural.
3.3.2. Nutrition

On the basis of NSS Report ‘Nutritional intake in India’, 2004-2005 the nutritional status is examined and by the NSS report ‘Perceived Adequacy of food consumption in Indian households’, 2004-2005 the present status on adequacy of food is understood.

The present status of nutrition/food adequacy is studied on the basis of

a. Per capita per diem intake of calorie, protein and fat
b. Intake of food items
c. Meals taken free and by payment
d. Food adequacy.

A wide range of nutrients are necessary to a person for performance of various bodily functions and also to lead a healthy life. The nutrients include protein, fat, carbohydrate, vitamins and minerals. Protein, fat and carbohydrate are some time referred to as proximate principles. They get oxidized in the body to yield energy which the body needs. Although proteins provide energy, their primary function is to provide amino acids for building body proteins. Fats, particularly the vegetable oils, besides being a concentrated source of energy, provide essential fatty acids which perform function akin to vitamins in the body. Protein, fat and carbohydrates are mainly the energy yielding components of a diet. Proteins normally supply 10-12% of energy in most diets; energy that carbohydrate and fat contribute may vary from diet to diet. Proteins are one of the most important nutrients required by the body and should be available in adequate amounts in the diet. (NSS report of 61st round).

3.3.2.1 Per capita per diem intake of calorie, protein and fat

In the country the average daily intake of calorie is higher in rural whereas fat intake is higher in urban. Average daily intake of protein by the Indian population is same in both areas. In rural Assam a very depressing picture of calorie, protein and fat intake is observed. The intake of all the three nutrients in rural is less as compared to urban. Very high gap (76kcal) between rural and urban is observed in the intake of calorie and least difference is in protein intake (Table 11). Low calorie intake is highly unfavourable for rural areas as there is given perception that rural population should take more calories
for the greater intensity of work. In earlier chapter while discussing the vulnerability, a declining trend in the intake of these nutrients in urban is noticed but present status indicates urban as better of than rural. It explains that rural Assam in the present state is though in unfavourable position but trend study shows that rural Assam is growing into favourable state. The approach of Sustainable livelihood, as discussed earlier stresses more in the progressive change. In urban India a sizeable increase is noted in the consumption of fat. This can increase the problem of obesity among the children and adult of urban. P.S Shetty (2002) in this context has added that change in lifestyle resulting in physical inactivity and sedentary behaviour is contributing to obesity in children. He has added that children now spend more time in physical passive behaviour such as TV watching, playing game on computer, talking on phone etc. which can increase the risk of obesity.

Food balance data from the Food and Agriculture Organization (FAO) show that the change in energy intake in Asian countries has been small, but there have been large changes in consumption of animal products, sugars and fats. The net effect has been a marked shift in the diet with energy from fat (both animal and vegetable) increasing each year. Data from India show that higher-income groups consumed a diet with 32% of the energy from fat while the lower-income groups consumed only 17% energy from fat. More recent dietary surveys in Delhi also confirm that the upper income groups in urban India currently consume higher levels of energy from fat as compared with the urban poor or rural populations.

3.3.2.2 Intake of food items

Non cereals contribute higher percentage of calorie in India as compared to the state. On the other hand cereals contribute higher calorie in Assam as compared to the country. Significantly higher percentage of protein as compared to India is consumed in Assam from meat, fish and egg. In India on the other hand high protein is consumed from milk and milk product. In the consumption of pulses and other foods there is marginal difference between the nation and state. Thus it is found that in Assam the consumption of meat, fish and egg is higher for protein and intake of milk and milk product is less in the state (Table 12.1).
Cereal is the major source of calorie in both rural and urban Assam. Higher percentage of calorie and protein in rural is obtained from cereal. Pulses, meat, egg, fish, milk and milk product and other food is relatively consumed more in urban for protein. There is significant difference in the intake of milk and milk product between rural and urban areas.

From earlier discussion it is seen that cereal substitute is important component of calorie in urban Assam and in country. It would be interesting to know the difference in the intake of food items of cereal substitutes. Rural Assam significantly consumes more vegetable, fruits, meat, egg and fish as compared to rural India. In addition to these rural Assam consumes roots and tubers, oil and fats and miscellaneous food and product marginally higher than rural India. Rural India takes sugar and honey, pulses, nuts and oilseeds marginally higher than state. The consumption of milk and milk product is significantly high in rural India as compared to Assam. In urban Assam almost a similar picture is found. Significantly high intake of urban Assam is meat, egg, fish. In rest of the items as in rural marginal higher intake is noted in urban Assam (Table 12.2). Significant low intake in urban Assam is also found in milk and milk product. India though makes a prominent share in the global market in food and vegetable it does not get reflected in consumption. Perhaps it totally gets exported as cash crops which may lead to loss of local people. In India the intakes of both vegetable and animal product is found limited. Economic development may lead to increase in intakes of these items and these changes will be beneficial. Shetty (2002) in his analysis on food and fibres examined that improved socio economic status are often associated with reduced intakes of coarse cereals and reliance on polished varieties increases. That may lead to reduced intakes of dietary fibre. Comparatively higher case of heart diseases and hypertension in urban India to some extent can be responsible to unfavourable food pattern in urban areas.

Rural Assam consumes more vegetable and fruits, roots and tubers, pulses, nuts and oilseeds, as compared to urban. Discussion on intake of food items makes it clear that the consumption pattern in urban Assam is unfavourable. High intake of oil and fats and reduction in the intake of vegetable and fruits, roots and tubers, pulses, nuts and oilseeds establish it clearly.
The percentage of expenditure made on cereals and food is higher in Assam as compared to the country (Table 12.3). It is obvious to find higher cereal expenditure in rural than urban as intake in rural is also higher. It is interesting to note that the difference of expenditure in cereal between urban Assam and India is insignificant. In rural this difference is high in food expenditure.

3.3.2.3 Meals taken free and by payment

One or more readily eatable (generally cooked) items of food with cereal as its usual major constituent, for the purpose of consumption of a person are termed as a MEAL. Energy and other nutrients for normal living and pursuing normal vocations are provided by the meals when consumed daily once or more by a human being.

There is insignificant difference of meals taken at home by sex in the country. Table 13 explains that comparatively in Assam higher percentages of meals are consumed at home than in the nation. Both in the country and Assam higher percentage of meals in rural are consumed at home. In the consumption of average meal at home has almost no difference between the male and female in rural but in urban India almost 2% more female members take food at home.

Food consumed away from home can be categorized into two groups - free and on payment. The ‘meals taken while away from home’ –free are those which are provided free by (i) employer(s) to him, (ii) schools/ balwadis as mid-day meal and (iii) other households during ceremonial or other occasions to the person as guest/visitor or otherwise. Meal taken while away from home - on payment is those in which the meals are obtained from hotels/restaurants, eating houses etc., or from office/factory canteens by payment or on credit or purchase at subsidized rate. Higher percentage of meals in India is consumed without payment (free) by both sexes as compared to Assam. Consumption by payment is higher in urban by male population. A very insignificant percentage of women are found to have consumed meals in hotels/ restaurants and other sources with payment.
3.3.2.4 Food adequacy

By number of months- Higher percentage of households both in rural and urban India is found to have enough food. In urban India very insignificant percentage (less than 1%) of households are without enough food. But in Assam the picture is not as bright as India. In rural Assam almost 4% of households and in urban 2% do not have enough food for 11-12 months (Table 14.1). Rural Assam reported the highest percentage of households ‘not getting enough food every day in all months of the year’ among all the states followed by Orissa and West Bengal (1.3%) as per perception of field officials of NSS. In the urban area also highest percentage is reported in Assam followed by Bihar (1.1%).

By household type- In rural India self employed in agriculture had highest percentage for adequate food availability throughout the year. Table 14.2 explains that in the country and in state agricultural labour households had the highest percentages (5%) of seasonal inadequacy of food, followed by ‘other (rural) labour’ households (2.1 & 4%). In rural Assam other households and self employed had higher percentage of adequate food availability.

In urban India highest percentage of regular salary and wage earner had adequate food. In Assam other households and regular salary and wage earner had higher percentage of adequate food. For ‘casual labour’, percentage for inadequate availability of food everyday was relatively high in India compared to other types of households. In Assam too only 80% of casual labour had adequate food and seasonal inadequacy of food is also higher among them. Thus a very insignificant difference is noted in food adequacy level among the household types between the state and the country.

By ration card type- Among the different types of ration card holders the Antodaya Card holders had highest percentage of ‘not having enough food everyday in some months of the year’ followed by BPL cardholders in the rural India and Assam. In Assam 23% and in India 6% Antodaya card holder had seasonal inadequacy (Table 14.3). Both in the country and state BPL card holders reported higher percentage of seasonal inadequacy of food in urban area. There is no one in urban Assam reporting inadequacy with Antodaya Card holders in the whereas in India there are few of them.
In rural Assam higher percentage of other and BPL card holder got enough food and in urban all the Antodaya card holder got sufficient food.

Present status of nutrition and food adequacy in Assam and gap with the nation

- In the country the calorie intake is higher in rural whereas fat intake is higher in urban. Intake of protein is same in the country. In rural Assam intake of all the three nutrients is less as compared to urban.

- Non cereals food contributes higher percentage of calorie in India. Cereals contribute higher calorie in Assam. Higher percentage of protein is consumed in Assam from meat, fish and egg. In India on the other hand high protein is consumed from milk and milk product.

- Rural Assam consumes more vegetable, fruits, meat, egg, fish roots and tubers, oil and fats and miscellaneous food and product as compared to rural India. Rural Assam take sugar and honey, pulses, nuts and oilseeds marginally less. The consumption of milk and milk product is significantly high in rural India as compared to Assam. Expenditure made on cereals and food is higher in Assam as compared to the country.

- In Assam higher percentage of meals are consumed at home than in the nation. Higher percentage of meals in rural are consumed at home. Consumption by payment is higher in urban by male population.

- Food inadequacy is high in Assam. Self employed in agriculture and salary/wage earner has adequate food. Agricultural labour and casual labour has higher seasonal inadequacy of food. BPL card holders reported higher percentage of seasonal inadequacy of food in urban area. Antodaya Card holders had highest percentage of ‘not having enough food everyday in some months of the year’ followed by BPL cardholders in rural areas.

From the above discussion it is observed that the status of dwelling structure and provision of electricity in Assam is much lower as compared to the average of India. On the other hand the position of sanitation in Assam is found better than India. As compared to rural India the financial asset status of rural Assam is poor. Treatment in rural Assam is though done by more but the medical expenses in Government sources in rural Assam is less than India. Higher medical expenses in private sources for treatment
lead rural Assam to loss of high income. In the problem of drainage, garbage, mosquito, foul odour, flies and inadequacy of food very insignificant difference is found between India and Assam.

In earlier chapter on ranking the factors, rural Assam weighted as more vulnerable. Similar ranking method is used to understand the difference in the living status of the country and state.

Table 1.0 Ranking of the variables in the context of vulnerability in India and Assam.

<table>
<thead>
<tr>
<th>Variables</th>
<th>India</th>
<th>Assam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Financial Capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Average value of asset</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>ii) Debt Asset Ratio</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>iii) Asset holding by Marginal to medium sized landholder</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>2. Physical Capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Safe water</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>ii) Treating water</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>iii) Pucca house</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>iv) Sanitation</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>v) Electricity</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>3. Human Capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Morbidity</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>ii) Immunisation of children</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>iii) Treated in Govt hospital</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>iv) Loss of household income for hospitalisation</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>v) Intake of calorie</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>vi) Intake of protein and fats</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>vii) Expenditure on food and cereals</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>viii) Adequate food</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>ix) Food availability by ration card</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

The table itself is self explanatory which indicates that people in Assam are living in much higher vulnerable state as compared to the other states of India. Out of 16 factors of livelihood capitals Assam ranked low in 11 of them indicating in 68.75% of factors Assam has lower status as compared to other states of the country.

Discussion on status of capital shows both positive and negative feature simultaneously in rural and urban Assam. In physical capital to an extent urban Assam ranks higher for better drinking water facility, improved personal hygiene in relation to water, good
sanitation, better dwelling structure and use of better source for cooking and lighting. But in the context of quality of water and problem of improper drainage system and garbage make the physical capital of urban poor.

In urban Assam the debt asset ratio is high which signifies higher burden in urban areas. The disparity of asset holding among the richest and poorest class is also high in urban Assam. Rural Assam on the other hand though has less burden of debt but average value of asset is much low as compared to urban Assam and India. Thus in financial capital mix of both positive and negative features are indicated. Similar is the case with human capital. In the case of health there is insignificant difference in the case of percentage of morbidity, hospitalized treatment sickness of aged population between rural and urban Assam. Taking the area individually it is noted that rural Assam is in unfavourable state in the matter of infant mortality and immunisation of children. On the other hand in urban continuous period of sickness and expenditure incurred in treatment is higher than all India average. The loss of income in urban Assam is thus much higher as compared to the rural. In the case of nutrition and adequacy of food we observe that in rural the intakes of all the nutrients are less and there is higher inadequacy of food. In urban we find a high consumption of fat items and low intake of fruits, vegetables, roots tubers etc for calorie which indicates an unhealthy food pattern. This gets reflected in more sickness and treatment which induces higher expenditure and more loss of income.

Thus the livelihood capitals have both favourable and unfavourable features in rural and urban Assam. Each one 'pulls' and 'pushes' one another in the cycle of livelihood. Access of these capitals leads to different livelihood strategies. The strategies are highly complex in nature in which all these capitals are linked with each other to give a livelihood outcome. In the following chapter the strategies carried out in different areas will be discussed in depth mainly with the support of primary information.