CHAPTER V

PROBLEMS ASSOCIATED WITH LAND, PEOPLE AND ENVIRONMENT

INTRODUCTION

The area and population of an urban centre increases with urbanisation of the region. India and many other developing countries are suffering from the problems of urbanisation and often they have population densities much higher than many western cities. Due to population pressure on the one hand and marginally improving living standards on the other, the demand for urban services is steadily increasing. The gap between available urban infrastructure and their demand among the public has been increasing continuously due to resource constraints. There is inequitable distribution of available services among the poorer sections. The poor comprise nearly half of the total urban population and hardly participate in the benefits of the available urban services. Thus, each and every town is facing the problem of deficit and uneven distribution of urban amenities. The town under study has many such problems, of which some are very acute and need attention for identification. This chapter deals with some problems, which were identified at the time of field study.

5.1 PRESSURE OF POPULATION

The study of population problem through various perspectives at a national level is of paramount importance. It has evoked interest among different scientists and academicians (Singh, 1985). But growth of population plays a conflicting role in the development process as it can act both as a stimulus and an impediment to growth and development. The common view of today, as far as the developing countries are concerned, is that rapid population growth presents an obstacle to the growth of living standards (Thirlwall, 1987).

Recently, the study of population growth has drawn much attention of social scientists not only in India but also abroad. Such studies are more important for areas, which are densely populated and seem to have reached saturation level in the context of the prevailing technological and economic conditions. In the densely populated regions, even low rate of population growth has aggravated the problem of increasing pressure on resources, which evolve different responses of people in the areas (Thirlwall, 1987).

The analysis of population growth, therefore, holds significance for a hill town like Kurseong where the growth was rapid in the last decade. In 1991, the density of population was

very high in ward VII (415 persons/ha) and was followed by wards VI (310 persons/ha) and IV (179 persons/ha). Kurseong town has one centre of population and thus the density of population is the highest in these wards. The high density of population in these wards has resulted in vertical growth at the town's centre. Single storied buildings are slowly giving way to multi-storied buildings (Pic. 14) with scant regard to building rules. This has not only resulted in congestion of houses but also is creating a pressure on existing physical infrastructures of the town.

Pic 14 : Congestion of houses in the CBD.

The growth of density of population in Kurseong town during 1971-91 was 62.95 percent. Six wards have experienced a growth rate above the town's average. These wards have experienced an increase in density of population due to the availability of vacant land where construction of houses was possible. The vacant lands either belonged to the individuals or tea gardens or to the government. About 43 percent of the land in Kurseong town belonged to the Maharaja of Barddhaman, which after the Independence of India got fragmented among his tenants. The land ceiling act vested a large part of the land of the Maharaja to the government. Large-scale encroachment took place on these private and vest lands, which has resulted in the coming up of housing areas with sub-standard housing. As very less vacant land is left behind, the future growth of the town lies either in horizontal growth outside the municipal boundary or vertical growth within the town, which is not good for the health of the town.

Even though the Kurseong Municipality does not classify any particular area in the town as a slum, there are areas like Abraham Busty, Upper Dumaram Busty, Sherpa Busty, Subedar Busty, Gandhi Tar, Gandhigram, Sudhapa Tol, Ranikoop and Bhanu Tol, where the houses are sub-standard and sanitary conditions poor. The main reason behind Kurseong Municipality having such a policy is that unlike in the plains the slum areas in Kurseong town are not contiguous areas and have a mixed character of both good and sub-standard houses. Instead of declaring a particular area as a slum, the municipality identifies families, which are living below poverty line in different part of the town, and on the basis of the findings it submits proposals to the government for funds for slum improvement programmes. As per the municipality's figures about 32 percent of the families in the town are living below poverty line.

5.1.1 Slums dwellers and their living conditions

Definition of slums has its root mainly in deteriorating and sub-standard housing and overcrowding, sanitation, poverty and the character of the very site/area occupied by the slum, and its location in the ecological setting within the sprawling city (Prakasarao, 1983). No city can be considered healthy which tolerates within itself the existence of a highly congested area with only minimum amenities of life, where some of the poorest elements of the population are huddled together in almost sub-human conditions, observed the First Five Year Plan. The Plan recognised slums as a national problem and a disgrace to the country. Successive five year plans laid down strategies to clear and improve slums.

It was the Sixth Five Year Plan, which suggested that attempts at massive relocation of slums in urban areas be given up altogether as it not only entailed hardship to the occupants but also resulted in unnecessary destruction of existing housing capital. The accent was on investment to provide basic minimum amenities. The Eight Five Year Plan observed that the positive role of urbanisation is often overshadowed by the evident deterioration in the physical environment and quality of life in the urban areas caused by widening gap between demand and supply of essential services and infrastructure. The findings of the 49th National Sample Survey Organisation, authored by B. Bhushan, economic advisor to the ministry of urban development (The Statesman, 29 May 1999), reveals that:

(i) nearly half of the declared and undeclared slums (48 percent of the total of 1.17 lakh) are in urban areas;

(ii) housing conditions of 69 percent of the urban slum dwellers are very poor;

(iii) thirty-two percent of the urban slums have no drainage facilities; and

(iv) underground sewerage system exists in only 17 percent of urban slums.

The study also says that slums are formed for no fault of their occupants but due to the failure of the growth model to accommodate these vulnerable groups in the mainstream of socio-economic development of urban India. Expressing concern at the extent to which vulnerable sections have been deprived of facilities, including safe drinking water and sanitation, the study has recommended sweeping changes, including the establishment of specialised agencies.

A survey of the poorer families in the town reveals that 25 percent of the families have less than four members in their family; where as about 41 percent of the families have more than 6 members in their families (Fig.5.1a). In Abraham Busty, Dow Hill Lines, Upper Dumaram Busty, Sherpa Busty, Dhobi Khola and Shitalu Basty the percentage of families with more than 6 members is more than the town's average (Appendix).

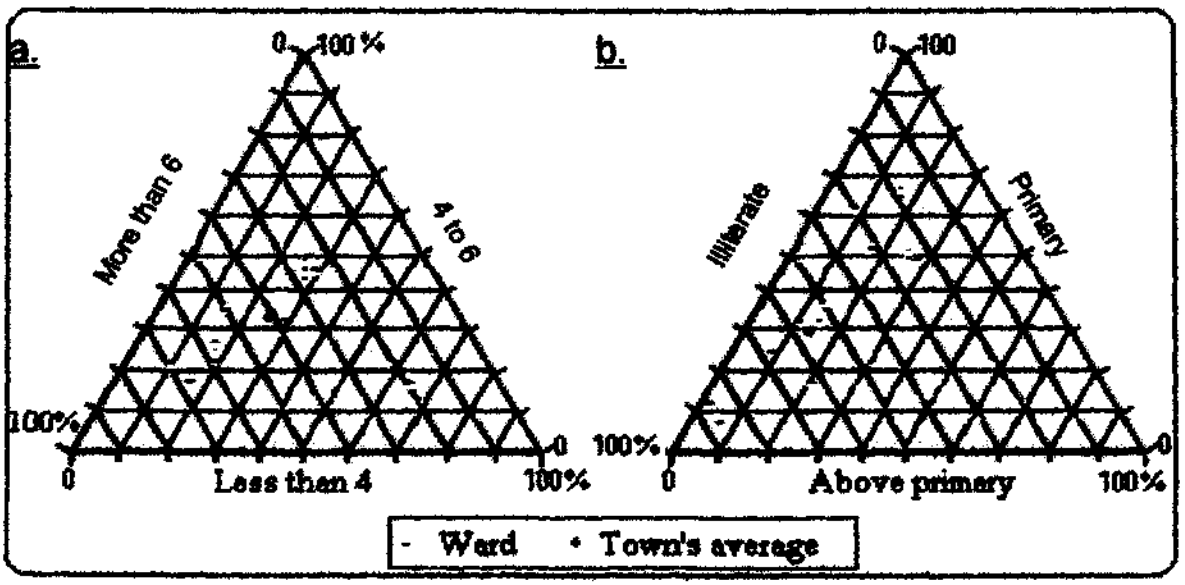


Fig. 5.1: (a) Size of families and (b) status of literacy among the poorer families in Kurseong town.

The status of literacy among the head of the families shows that about 58 percent of them are illiterate, 29 percent having primary education and about 13 percent having education till class VIII and above (Appendix). In Sherpa Busty, Dhobi Khola, Sudhapa Tol, Buddhagram and Butcher Busty the number of illiterate are more than the other areas in the town (Fig.5.1b). One interesting find of this survey was that there is awareness among the illiterate parents to send their children to school. About 65 percent of the children of school going age are attending schools.

The condition of houses of the poorer families shows that about 11 percent of houses have earthen floor, about 70 percent of houses have floors made of locally extracted stones and 18 percent have brick or cemented floors (Fig. 5.2 a). As stones, which are either extracted from jhora beds or by excavating slopes for construction of houses, are easily available the number of houses with stone floors is more than any other materials (Appendix).

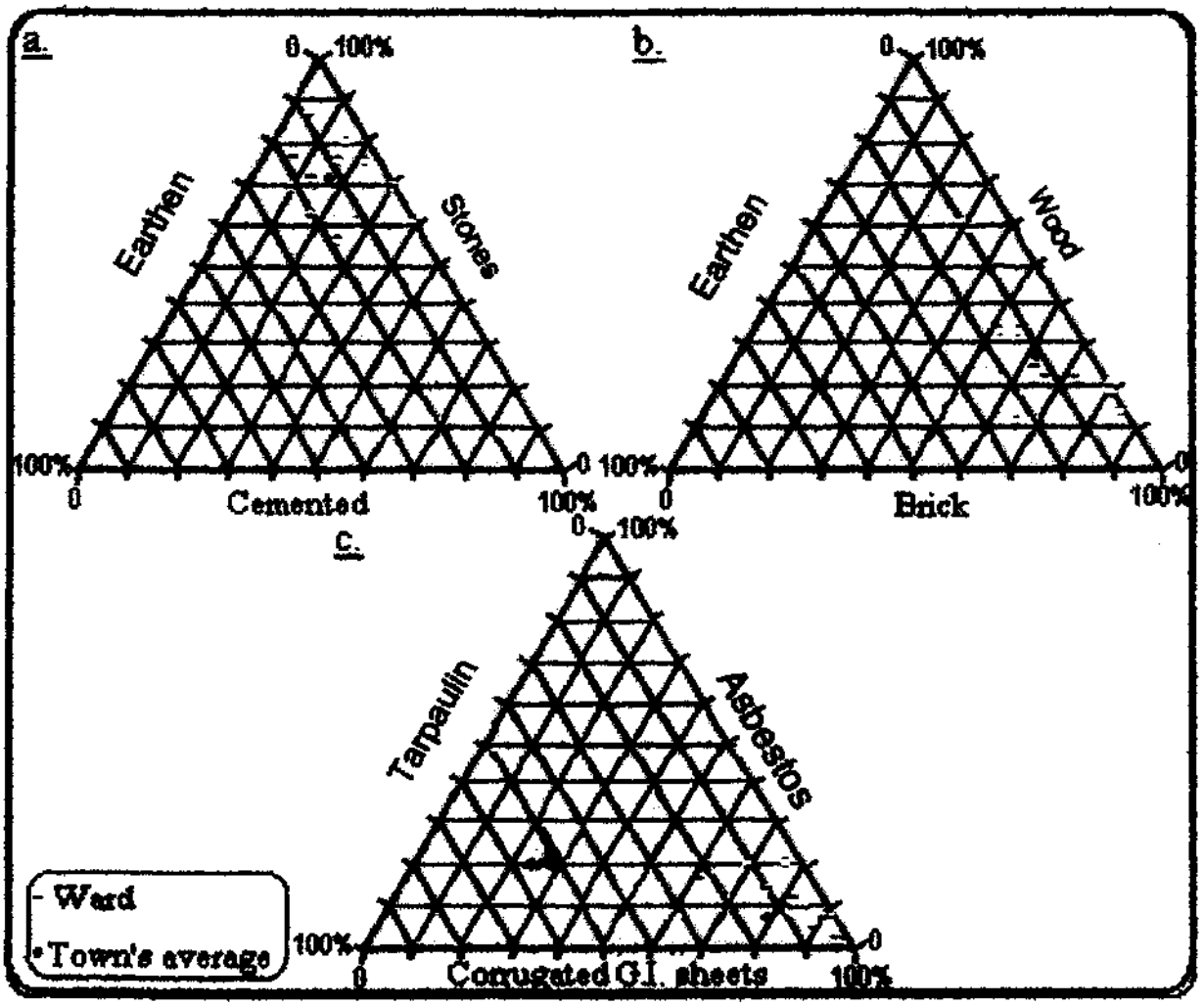
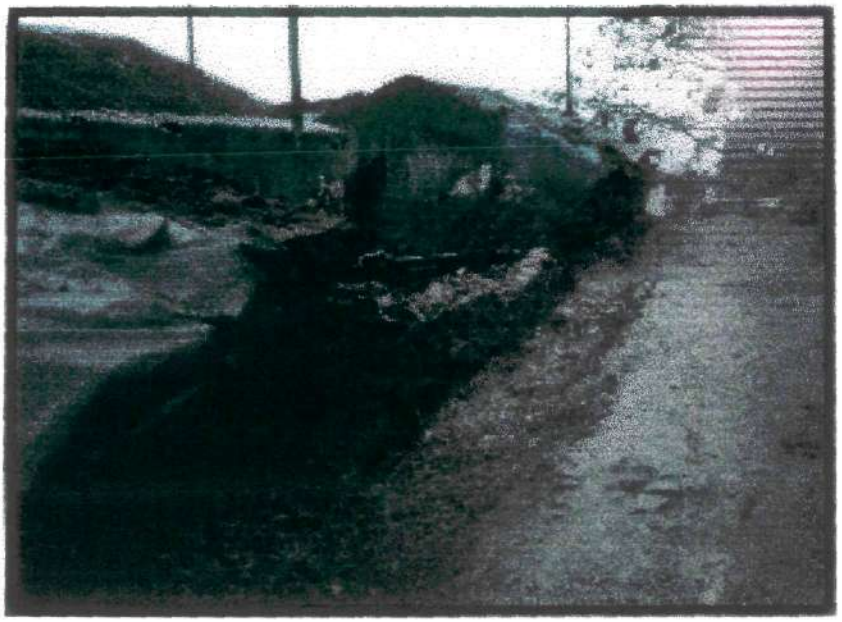


Fig. 5.2: Building materials used for making (a) floor, (b) walls and (c) roof.

The status of walls of the houses shows that about 62 percent of houses (Appendix) have either brick or stone walls where as about 27 percent of the houses have wooden and about 11 percent have earthen walls (Fig. 5.2 b). The preference for making houses with stones and wood over other materials is due to the availability of stones and illegal timber locally.

About 4 percent of the houses are covered with plastic sheets (Pic. 15) where as 89 percent of the houses have corrugated G.I. sheets (Fig. 5.2 c). As Kurseong town's rainy season lasts for about 4 months, the general preference among the households is to have their houses covered with corrugated G.I. sheets or asbestos sheets and this is mostly done by taking credits from hardware shops. The general trend among the households in the town shows that the building materials used for making houses is normally the same in all the areas in the town (Appendix).



Pic. 15 : Condition of roofs in Sherpa Busty.

About 45 percent of the households get their daily need of water from jhoras and this supply of water from the jhoras decreases during the lean months. Only about 8 percent of the households get their supply of water from the municipality through individual connections. 47 percent of the houses use water from the public hydrants provided by the municipality (Appendix). Households in Dow Hill Lines, Abraham Busty, Sherpa Busty, Dhobi Khola, Sudhapa Tol, Gandhigram and Ujaregaon use more of jhora water than any other areas in the town (Fig. 5.3 a). The supply of drinking water to the households either through public hydrants or individual connections is still a dream for the municipality.

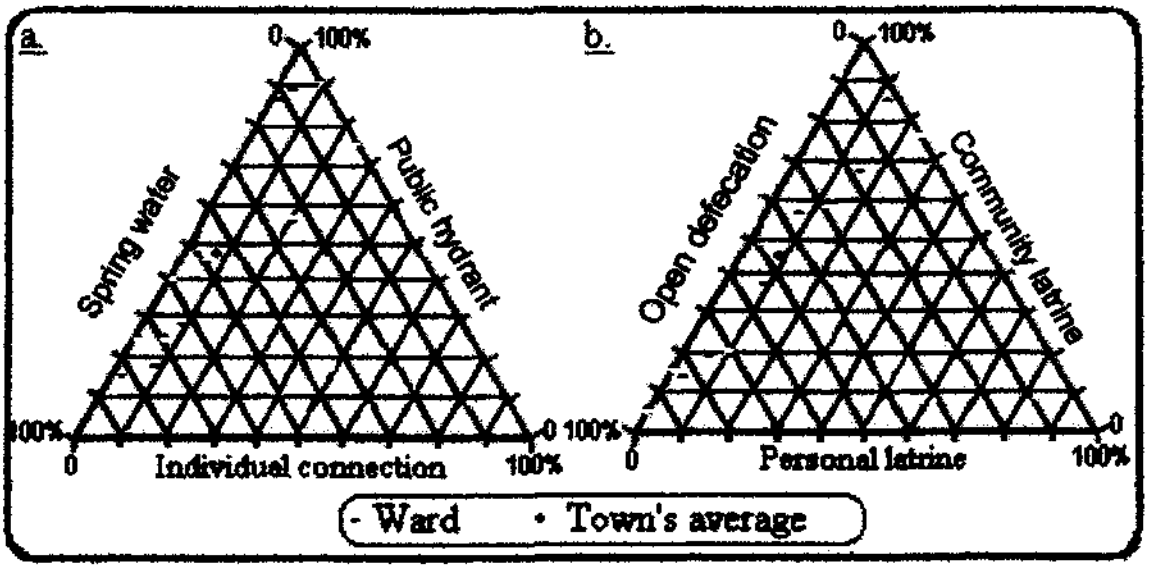


Fig. 5.3: Availability of (a) drinking water and (b) sanitary facilities among the poorer families.

The availability of sanitary facilities among the households is very poor. Only 9 percent of the households have latrines of their own, where as about 48 percent of the households defecates in the open (Fig. 5.3 b). This reflects a sad state of affair in the case of standard of sanitation in the town. About 43 percent of the households use the facility of community latrines, which are also in a bad condition (Appendix).

5.2 LAND USE PROBLEM

There are problems concerned with *viz.*, intensive use of land so as to achieve maximum possible profit, and changes in land use from non-urban to urban which involves the actual loss of land from a particular land use that should be permissible only after estimating the net loss in terms of its production and exploring the possibilities of its compensation. It is essential to examine the historical and inter censal growth of the towns and class of towns as influenced by sites and situations, pattern of change in urban land use with an estimate for the future, relationship existing between the morphology and land use and lastly land use planning (Ataullah, 1985).

An attempt has been made to study the various categories of land uses together with location and historical background. Various functions, which the town performs, have been studied in relation to urban population for the determination of problems created by human beings to meet their certain requirements. The residential areas cover majority of the urban land

in the town with Central Business District at the centre. Like most of the towns in the country, the town under study has similar land use characteristics and land use pattern.

Comparative figures for various uses also reflect the inconsistency of distribution of quantum of land under various uses. The hilly nature of land in Kurseong is a major controlling factor for transportation and urban growth. These inconsistencies need to be minimized in the future development of the town on the basis of development plan, which should spell out the proposals in this respect.

5.2.1 Inter-relationship of different uses

The land use pattern, which has presently emerged, is an outcome of successive decisions – conscious and unconscious, formal and informal taken during the past. The outcome is reflected through the existing land use pattern. Even a glance at the existing land use map gives an impression that land use pattern evolved till this date is not satisfactory. In the beginning of Kurseong development attempts were made by the local authorities to ensure an organised development of the town. Because of a serious pressure on land, it has not ever been possible to ensure a desirable relation among various uses in the area and the overall settlement pattern has ultimately assured a disorganised development of predominantly mixed uses. Like all other Indian cities, the city centre is the main hub of multifarious activities. Many activities have found their places in this hub even though they do not form compatible relationship with commercial or residential uses in the area. The National Highway along with the railway line between Siliguri and Darjiling pass through the hub of the town and the vehicles park along this road for loading and unloading.

5.2.2 Inefficient land use

Some of the Government offices, educational institutions and others are functioning at places, which are not suitable for these activities. Moreover, in some cases the land, which is at present utilised by them, can be utilised much more efficiently for other uses. Some land uses, which are considered as inefficient, are the godown of the Food Corporation of India near the municipal shopping complex in the C.B.D. (ward XI) and the Taxi Stand near Railway Station among commercial uses. The Sub-divisional Hospital and educational institutions along the main road are considered as incompatible public and semi-public uses. The Rifle Range ground or the Chandmari ground is owned by the Ministry of Defence, Govrnment of India and despite a

number of representations made by the local populace and authorities for transfer of title of the land to civil authorities nothing has been done. This has prevented essential improvement of the ground as a public playground.

5.2.3 Selection of norms and their application

The urban land use plan is indeed an expression of the human behaviour in a city. For allocating appropriate proportion of land to different uses, the selection of norms is based on Webster (1958) and William H. Ludlow (1966), supplemented by Indian standard. Although, standards have been followed, variations have been allowed keeping in view the need of the town and its neighbouring region.

The main problem of residential areas is the lack of space for residential and other uses and over congestion around the Central Business District. The permanent green belts of reserved forest and tea gardens and the steep slope of the area, resulting thereby a cramped and congested township, have restricted the expansion of the township. In developing countries, the cities are facing a problem of over crowding which is the result of high intensity of residential land uses. Overcrowding again is reflected in the densities of houses and households (Yadav, 1979). According to Webster, in an average city, about 40 percent of the developed area are in residential use. The Indian standard for this use is also the same. According to Ludlow, an average of 4.0 ha land per 1000 population under residential land use for the construction of dwellings is an ideal set up which accounts for about 33 percent of the total urban land in the town. In Kurseong it is 50.38 percent, far above the average. The higher percentage of land devoted to this land use is because of other uses, which are less prominent than they should be. The greatest problem or shortcoming in this use is the very high density in the central zone. As a result of uncontrolled sprawl and unplanned development, high density has come to exist at the cost of proper road widths and essential civic amenities. There are many pockets of blighted areas. The other shortcomings of this use are its mixture with commercial uses at the centre of the town and construction of houses on moderate to steep slopes and along the jhoras, with scant regard to building regulations.

In the commercial area, business establishments have encroached upon residential houses. This mixed use has several disadvantages *e.g.* unhealthy condition of living, paucity of sunlight in the residential houses due to vertical growth, air pollution and disposal of garbage. The problem next in importance arising out of this is and the presence of godowns and wholesaling,

that is leading to traffic congestion and unsanitary conditions. According to Webster, 2 to 5 percent of the developed land is in commercial use where as Ludlow suggests 3.3 percent of the land under commercial use. In the town commercial land use covers 3.9 percent of the urban land in the town. Two shortcomings of this use are – majority of the shops are located at the centre of the town and people living at Dow Hill, Dumaram, Naya Basti and Fatakdara far away from the centre have to travel a long distance to purchase even the articles of day-to-day use; and the privately owned educational institutions have come up in an unplanned and haphazard manner. The private English medium residential schools not only lack in playgrounds but also in spacious classrooms and dormitories.

By any standards the town lag behind others in respect of industrial land use. Only 0.23 percent is devoted to this land use whereas according to Webster's standard it should be of 10 to 15 percent and according to Ludlow the percentage should be 3.31 of the developed area. The low percentage is due to lack of resources and absence of raw materials except tea for setting up of medium and small-scale industries. Even cottage industries are non-existent.

On an average, about 28 percent of the developed area is devoted to transport and communication and the land used for such purpose (10.4 percent) is far below the norm in this town. The need of a parallel road to lessen the pressure on the Hill Cart Road and other roads is evident but the topography of the town is an obstacle to the construction of roads in the town. About 10 percent of the developed land is devoted to public and semi-public land use, which should be at least 16 to 22 percent according to Indian standards. The problems of ill distribution and shortage of space are also observed. The institutions are distributed unevenly and at misfit sites. The educational institutions like the Pushparani Roy Memorial High School and Scotts Mission Girls High School are situated at congested locality. These schools are facing problem of shortage of space at present and are likely to face greater problem in the near future. Government offices are scattered haphazardly and there is a need to develop a centralised office zone.

Urban land use expands at the cost of open space. It covers about 4 percent of developed land in the town and is unevenly distributed. In theory, an effort should be made to distribute these areas over the town in accordance with the population pattern, but in practice political and market considerations often cause spatial inequities, and thus major amount of open space is found in some pockets. The general planning standard for parks and playground space is given as a ratio of unit of land under parks and playground to population unit. According to Ludlow the ratio is 0.8 hectare of parks and playground to 1000 persons. This shows that for a population of

30,000 the area under parks and playground should be of 24 ha where as the actual area under this use in this town is only 10.485 ha. This problem of lack of parks and playgrounds is going to aggravate in the near future with the increase in population.

The expected future land use and population projection for 2001 and 2011 shows that the town that is already facing many land use problems, will rise in future. If the urban area is not extended and different land uses are not allocated properly, the land use pattern, which is unbalanced, will become very unbalanced and irregular in the future. The central area is already congested with commercial and residential uses and needs thinning out.

5.3 SOCIO-ECONOMIC PROBLEMS

The main problem associated with medical, educational, administrative facilities etc. is their uneven spatial distribution in the town. The hospital is situated near the bazaar, which makes other parts unattended and untouched by medical facilities. Likewise, the distribution of educational institutions too has very uneven distribution pattern. It is found that often the students have to come after kilometres of walk to a part of the town where these facilities are available. The main administrative function of the town is situated away from the centre of the town and cause great inconvenience to the people. Rests of the offices are situated in rented houses in the residential areas.

5.3.1 Medical Facilities

The Kurseong Sub-divisional Hospital, which was set up in the early part of 20th century, has undergone many changes. Extensions of buildings have been made in order to cater to the needs of the ever-growing population of the town as well as of the sub-division. New disciplines of medical facility have also been started but the hospital suffers from some inherent problems of which some are avoidable and some unavoidable. The problems, which the hospital faces, may be listed as follow:

(a) existing bed strength in the hospital is insufficient and needs to be enhanced to keep parity with the increasing population;

(b) as the hospital is situated at the centre of the town, the scope for further expansion is restricted. As such there is extreme paucity of space for the outdoor and indoor patients. The hospital wards are small in size and cannot accommodate patients during an emergency. There is

no separate nursery for children, no isolation ward for contagious diseases and no Intensive Coronary Care Unit.

(c) space for laboratory and radiology departments is insufficient. The new blood bank, which has been started, also lacks in space;

(d) there is no incinerator in the hospital and thus its refuse finds its way to the garbage dumping ground of the town without any treatment;

(e) the toilets for the indoor patients and the sewerage system are in poor shape;

(f) hospital buildings need repair;

(g) the hospital compound is not fenced and with many illegal entry points at times causes security problems;

(h) there is no conference hall in the hospital compound to provide health education programmes and conduct conferences or symposia on medical orientation;

(i) there is no separate space for the hospital kitchen and the hospital laundry has a makeshift arrangement;

(j) there is an extreme shortage of quarters for medical officers, nursing staff, superior category of G.D.A.'s, drivers and sweepers.

In 1936, when the S.B. Dey TB Sanatorium was set up it was thought to be an ideal asylum for the tuberculosis stricken patients. With the passage of time more lands were acquired and new buildings were constructed to accommodate an increasing number of patients. Many individuals donated money and constructed houses for the welfare of the needy patients. Till the seventies trustees of the Calcutta Medical Aid and Research Society were running the hospital smoothly, but later on due to mismanagement the Government of West Bengal had to intervene and took over the management of the hospital from the society. As the number of staff working at the hospital was less, the Government increased the number of staff to 180 and raised the salary of the staff as per government rules. But other than increasing the number of staff and raising their salary the Government did nothing to improve the infrastructure and condition of the State Hospital. The major ills faced by this hospital are:

(a) due to the change in the pattern of treating patients suffering from tuberculosis and growth of Primary Health Centres at the block level in the different districts of the state the number of patients reporting to this hospital has deceased tremendously. At present the average number of

patients staying at this hospital remains at 150 and thus even though the hospital can accommodate more than 300 patients at a time, it remains under utilised.

(b) as the number of patients coming to this hospital has decreased, the hospital remains over-staffed with more staff dealing with less number of patients.

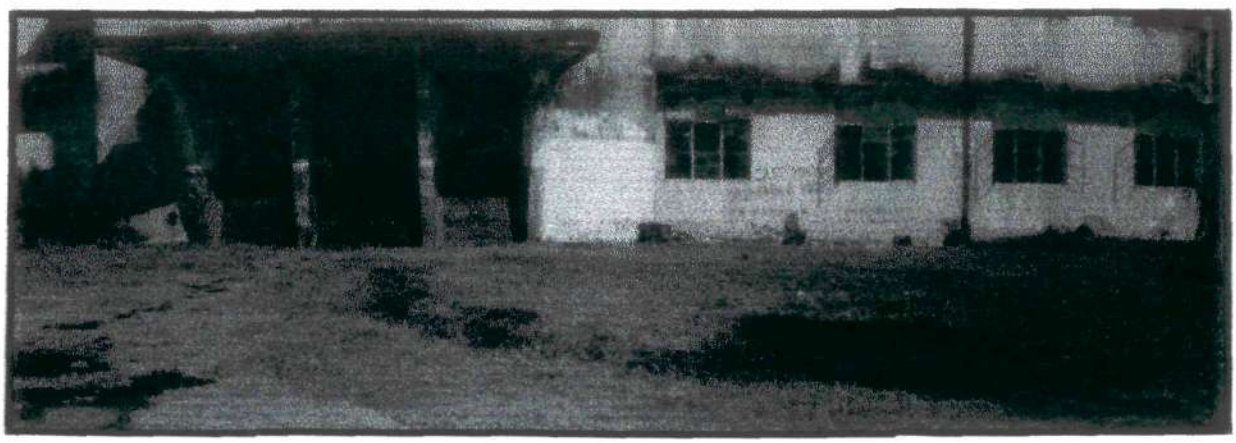
(c) there is a general apathy among the staff in the maintenance of the hospital and condition of the wards is dismal.

(d) the hospital is without an incinerator since August 1995 and thus all its refuse which are contagious in nature finds its way either into open drains and jhoras or are dumped in pits without proper protection.

(e) the washing tank which was constructed for cleaning of hospital and patients clothes is now used by the washermen of the hospital and their relatives to clean clothes of children studying in different residential schools along with the clothes of the hospital patients. This practice is highly objectionable as it may lead to spread of an epidemic.

(f) there is a lack of initiative on the part of the Government to run the hospital and to utilise the infrastructure available in the hospital efficiently. The building constructed by the Railways is lying unoccupied (Pic. 16),

(g) the hospital's campus is about 8.094 ha and even though plans were made by the Public Works Department during '89-'90 to fence it, the whole scheme remains on paper and no action has been taken.

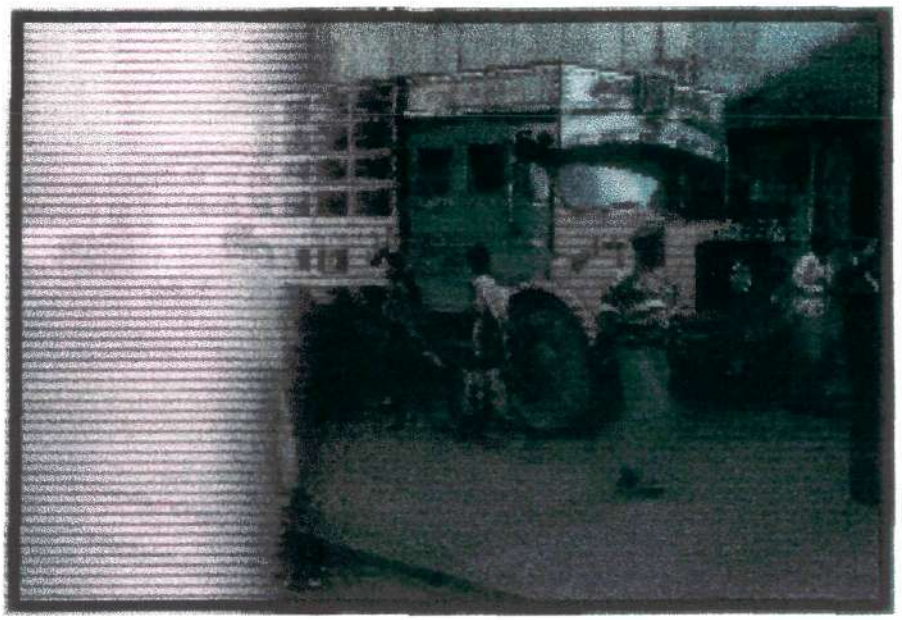


Pic. 16 : The unutilised Railway Annexe.

5.3.2 Trades and Commerce

The National Highway and the railway line of the D.H.R. passes through the centre of the town and majority of the shops are located on both the sides of the road. These two factors attract

heavy traffic movement throughout the day. Lack of parking space forces the trucks, buses, jeeps and cars to use the national highway for loading and unloading of goods. Further, numerous vegetables and other shops have come up in front of the existing shops and as there is no footpath along the road pedestrians' walk on the streets, which leads to congestion. The location of the LPG shop in the heart of the town (Pic. 17) not only creates problem of congestion by the trucks carrying the LPG cylinders but also is a threat to fire safety. In 1986, the town had experienced one of the worst fires and a repetition of that nature will be devastating for the town's economy.



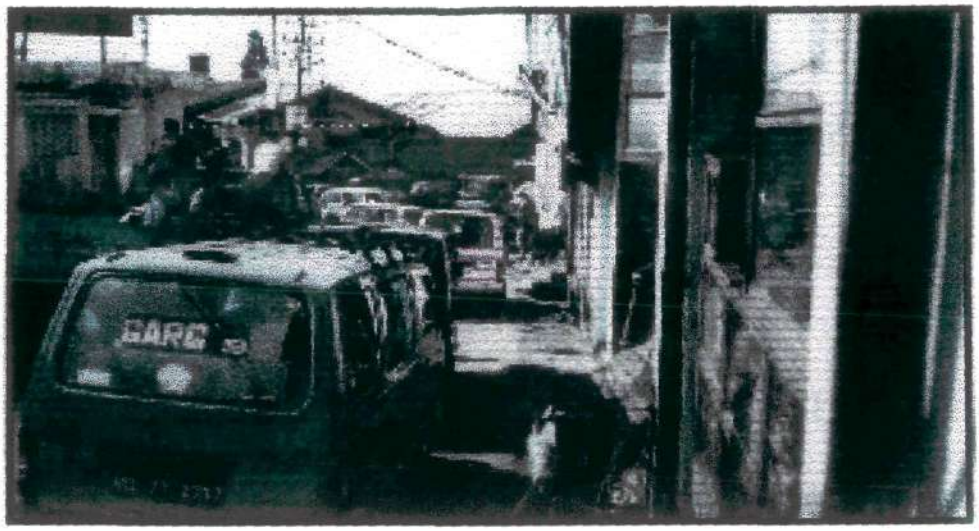
Pic. 17 : Trucks standing in front of the L.P.G. shop.

5.3.3 Transport and Communication

Transportation always plays a dominant role in directing the urban form and the structure of the town. The growth of any town, its trade and commerce, is intimately dependent on its transport network. The most aggravating traffic and transport problems of this town are highlighted as follows:

(i) the railway track crosses the national highway near the bazaar and this creates traffic congestion whenever the Toy Train enters the railway station; (Pic. 18)

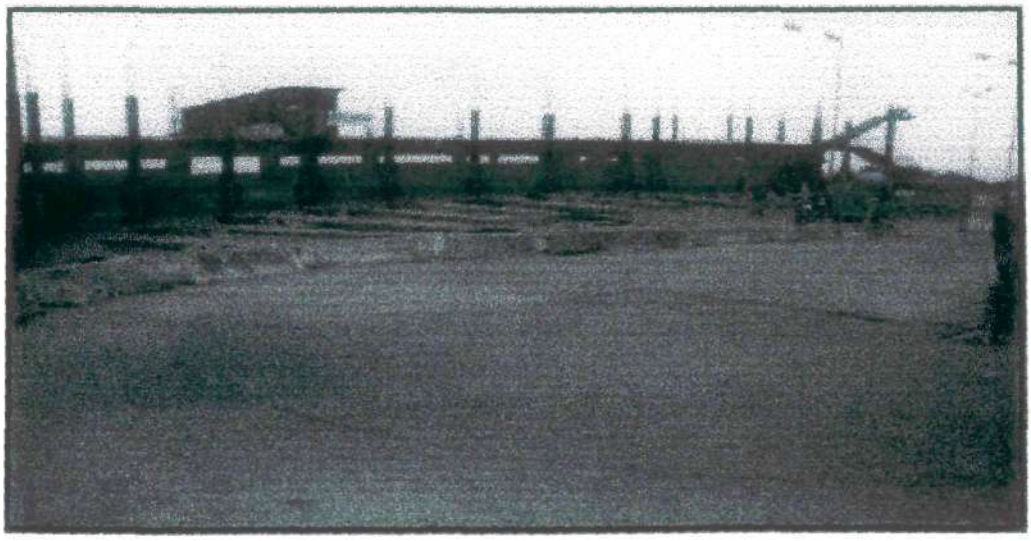
(ii) the Acharya Bhanu Path crosses the National Highway near the railway station and heavy traffic of light vehicles on the Acharya Bhanu Path creates congestion near the crossing point;



Pic. 18 : Traffic congestion near the Railway Station.

(iii) parking of vehicles along the road in the commercial area makes movement of traffic slower;
(iv) the Acharya Bhanu Path, Burdwan Road and the parking area near the railway station acts as terminal points for vehicles plying within the town as well as connecting neighbouring tea gardens and villages and Siliguri and Darjiling.

The INA Bus Terminus, which has incurred an expenditure of about Rs. 3,00,00,000/-, is yet to be completed and remains under utilised (Pic. 19). At present the vehicles do not use it as a terminal point as it is far away from the town's centre and there is no proper transport



Pic. 19 : The INA Bus Terminus.

network to carry the people from the terminus to the different parts of the town and vice versa. The taxis and buses are forced to enter the terminus in order to pay a toll at the rate of Rs. 5/- for small vehicles and Rs. 10/- for buses. Most vehicles avoid entering the terminus by paying the fee to the man at the entrance.

5.3.4 Telephones

The major problems the telephone exchange at Kurseong town faces are its old equipment and paucity of space. The equipment breaks down occasionally and creates problem to the telephone users. The paucity of space is also hindering its modernisation.

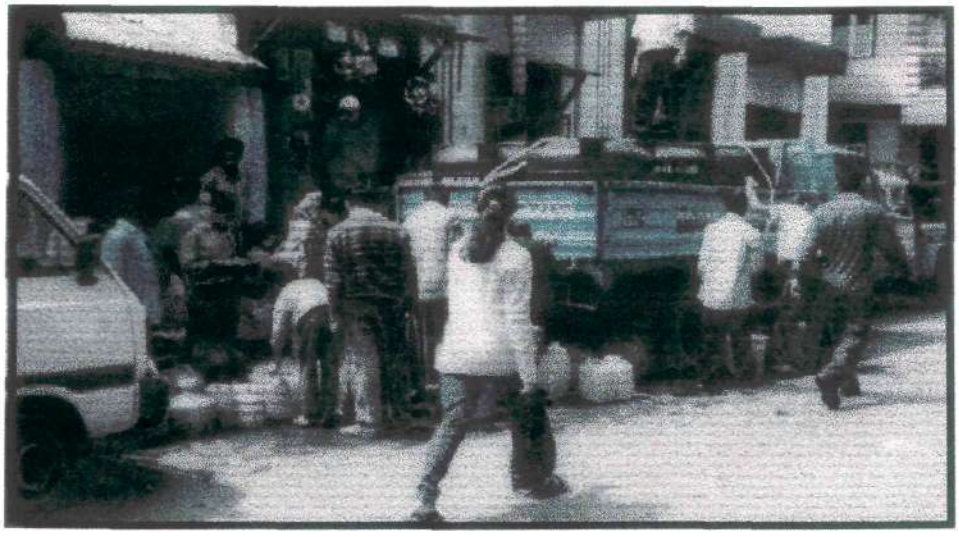
5.3.5 Drinking Water

There are some major shortcomings in the existing water supply system at Kurseong. The feeder mains to the Municipality service reservoir as well as the distribution network have been laid long time back. Due to poor maintenance this distribution system is in a worn out condition and because of leakage loss of water is high. Moreover, over time the population of Kurseong has increased significantly and the township has extended in newer directions. As a result the old distribution lines have not only been rendered highly under designed but also large scale tapping of water pipelines. The field survey shows that still a large portion of the population does not have individual water connection and some are users of untreated jhora water.

There are two distinct water supply agencies in Kurseong – one maintained by the Municipality and the other maintained by the Directorate of Public Health Engineering (P.H.E.). There is a lack of co-ordination between the two agencies and differences of opinion persist regarding utilisation of water. Recently the municipality has constructed 16 fire hydrants for the Department of Fire Services without taking prior permission from the P.H.E. and a feasibility survey of the scheme. The fire hydrants are supposed to get water from the water pipelines coming from Thotey and 8th Mile Kholas to Eagle's Crag Service Reservoir. The permission to provide water to these fire hydrants from the P.H.E. are still awaited and thus the fire hydrants so constructed by the municipality remains dry even after completion.

During 1999, the scarcity of drinking water during March-May reached a crisis point. Old records shows that scarcity of drinking water during lean months is part and parcel of the hills but during March-May 1999 it was unprecedented and there was crisis in general in the three hill sub-divisions of the Darjiling District. The municipal authorities were forced to supply drinking water

by arranging a fleet of makeshift water tankers (Pic. 20). Every day during the crisis period the tankers used to collect water from far away perennial jhoras and distribute it in different parts of the town. This incurred a huge expenditure for the municipality and it had to make an appeal to the Government of West Bengal for providing the necessary funds. Apart from the service provided by the municipality, bulk consumers like the privately run residential schools, hotels, restaurants and businessmen arranged their individual supply by engaging small vehicles for carrying water in water tanks of 500-1000 litres. The cost of carrying water in those vehicles ranged between Rs. 100/- to Rs. 150/- per trip. The crisis led to illegal tapping of water on pipelines coming from the sources as well as from reservoirs. This crisis also led to the growth of an unhealthy practice among some of the pipe fitters to make quick money by manipulating the supply of water.



Pic. 20 : Supply of drinking water by the Municipality.

5.3.6 Electricity

The Kurseong unit of the WBSEB suffers from the problem of shortage of staff and particularly technical staff. The vacant posts are yet to be filled up. The problem becomes acute when breakdown of transformers are more especially during the rainy seasons. Now a day the WBSEB takes the help of contractors for repairing major works like replacing transformers during breakdowns. In Kurseong Town there is only one contractor and lack of expertise on the part of the contractor creates problems especially during major faults or when the number of faults is more.

Like any other offices of WBSEB in West Bengal, this office also faces problems of power thefts and meter tampering and thus recovery of tariffs per unit of consumption is less than the supply. This is a perennial problem and it seems that there is no remedy to over come these problems.

5.3.7 *Tourism*

Till the sixties Kurseong, due to its cosy and comfortable climate, was a favourite spot for seasonal retirement. But an ever-increasing volume of mercantile tourist who had little time for seasonal retirement had slowly replaced this class of tourist. The natural choice of this new class of tourists was Darjiling town, which offered more attractive site for their short duration holidays. With this change in tourist flow, the entire tourist facilities and input services had to be concentrated in Darjiling and its vicinity. Old tourist spots like Kurseong and Kalimpong, despite all their promises, receded to the background with little significance for the tourist flow to the Darjiling hill areas.

5.4 ENVIRONMENTAL PROBLEM

Maintenance of purity and safety of the environment in the face of increasing urbanisation and mechanisation of daily life is emerging as the most challenging problem facing mankind today. The grouping of people together in confined spaces has always produce discomfort, risks of disease, problems of food and water supply, and difficulties in arranging for the disposal of waste. As cities have grown, these environmental problems have become so severe that the liberation the cities provided appears to be reduced by the restrictions imposed by the urban environment. Although the urban dweller has benefited from the greater opportunities for cultural enrichment and social enjoyment, the quality of urban life appears to have deteriorated as the citizen feels more and more threatened by polluted air and water, crowding and noise (Cloval, 1974).

The adverse effect of improper and inadequate solid waste management operations are still only partially appreciated as it is still difficult to link the resultant health effects directly to the inadequacy in waste management.

The primary effects arise mainly from the improper dumping of solid waste both by individuals and by the authorities. On a smaller scale, the scattered waste at the residential neighbourhood act as the breeding ground for mosquitoes, rats, flies etc. that lead to a number of

communicable diseases. In addition to causing unpleasant environment, the scattered waste like blowing paper, polythene and dust along the roads and drains clog the drains resulting in stagnation of water leading to over flow of drains. The individual households also quite often burn the waste in the street corners and backyards leading to release of toxic chemical compounds in the neighbourhood.

At the public authority level, illegal and improper dumping of solid wastes by the official carriers at the periphery of the town with least concern to the location of water sources either surface or underground may lead to leacheate action resulting in the contamination of water sources.

Any of the systems of waste disposal, which leaves organic wastes temporarily exposed, creates disease risks through insects and microorganisms. Often there is insufficient land for proper waste disposal and material may be discharged directly into the nearest watercourse. Such a situation, conducive to the spread of diseases such as cholera, typhoid and dysentery, is particularly likely to occur in the squatter settlements of third world cities (Douglas, 1983).

Major reasons for poor solid waste management operation may be as follows:

(a) lack of proper logistic planning of operations – solid waste management operations even though appears to be simplistic in nature, require a well thought out logistic planning for effective performance. The number and location of bins, frequency of collection by waste collectors, location of transfer stations, frequency of trips by the vehicles etc. all form important components of the solid waste management operations;

(b) resource constraints – fund availability for maintenance activities has always been limited as often the grant available are mainly for creation of assets and maintenance is left to the local body after the initial few years. Also are difficulties in the revision of tax rates of various sources and service tariffs;

(c) poor maintenance – major maintenance that are required include structural maintenance of community vats, transfer stations etc., maintenance of drains and other installations and disposal sites and maintenance of mechanical plants and vehicles; and

(d) lack of effective control on solid waste management – normally supervision of solid waste removal operation is minimal and left fully to the discretion of the field staff to organize themselves.

Even though deforestation is not a major problem in the town, the forested areas lying outside the municipal boundary, especially at Dow Hill, Deorali etc. are facing encroachments for construction of houses and agriculture. A part of the Sanatorium's land, which was gifted by the Government, remains unutilised and deforested (Pic. 21). Landslip has occurred at the source of Kanti jhora here. Deforestation in the catchments areas of the jhoras has resulted in the drying up of the jhoras flowing through the town.

Pic. 21 : Deforested area.

5.4.1 Sewerage

A skeleton sewerage system is in existence in the town, which is supposed to carry human wastes from community latrines and some private latrines. With low rate of water supply during the lean months, self-cleansing velocity is not attained in the sewers connecting these latrines, which results in clogging of sewers. Other sanitary latrines having individual septic tanks owned by the municipality faces the same problem of water scarcity resulting in filthy atmosphere. Also, superstructures of these community latrines are not in good condition. The major problems faced by the town are –

(a) The effluents from sewer lines and septic tanks are directly discharged into nearby jhoras creating pollution hazards.

(b) The new R.C.C sewer lines having length of about 2.25 km. that was laid between 1986 and 1994 without any design and at places they are not connected.

(c) In the market area, due to space constraints construction of pour flush latrines is not possible. No labour is available for regular inspection and maintenance of existing sewer lines and community septic tanks, which is an essential requirement for proper functioning of the total sewerage system.

(d) Tools and plants required for maintaining the sewerage system are also not available. The municipality does not have any cesspool emptier, night soil tanker or any other type of carrier for collection, transportation and disposal of night soil.

(e) Buildings having individual septic tanks are discharging septic effluent into open surface drains passing through residential areas.

(f) Indiscriminate dumping of sewage on the hill slopes and discharge of raw sewage from the sewer into the jhoras are inviting frequent complaints from the lower area settlements.

(g) Health awareness among the community toilet users is lacking.

(h) Indiscriminate dumping of solid wastes on the roads, into the drains and sewers are adding to the problems of safe disposal of liquid waste in the town.

(i) Unless immediate steps to prevent pollution and alleviate unhygienic conditions prevailing now particularly in the core area are taken, chances of health hazards or epidemic in the near future cannot be ruled out.

5.4.2 Solid Waste

Hazardous solid wastes generated from the hospitals mixes up with municipal wastes. Quite a substantial quantum of solid wastes is not removed regularly (Pic. 22) and these are being dumped locally in adjoining jhoras, ditches and low lying areas by the people themselves which is not at all desirable. A major portion of the garbage is dumped west of Bourdillion Road and burnt which not only creates bad smell but also add smoke, dust and harmful gases into the atmosphere (Pic. 23) portion of garbage finds its way into gully pits, which chokes the drainage system. An increase in the use of plastic bags for shopping and carrying goods has aggravated the situation. The congestion in the town centre and increased

Pic. 22 : A garbage vat.

volume of traffic has increased air pollution to a great extent. Deficiencies as regard to solid waste management are –

(a) less number of community vats;

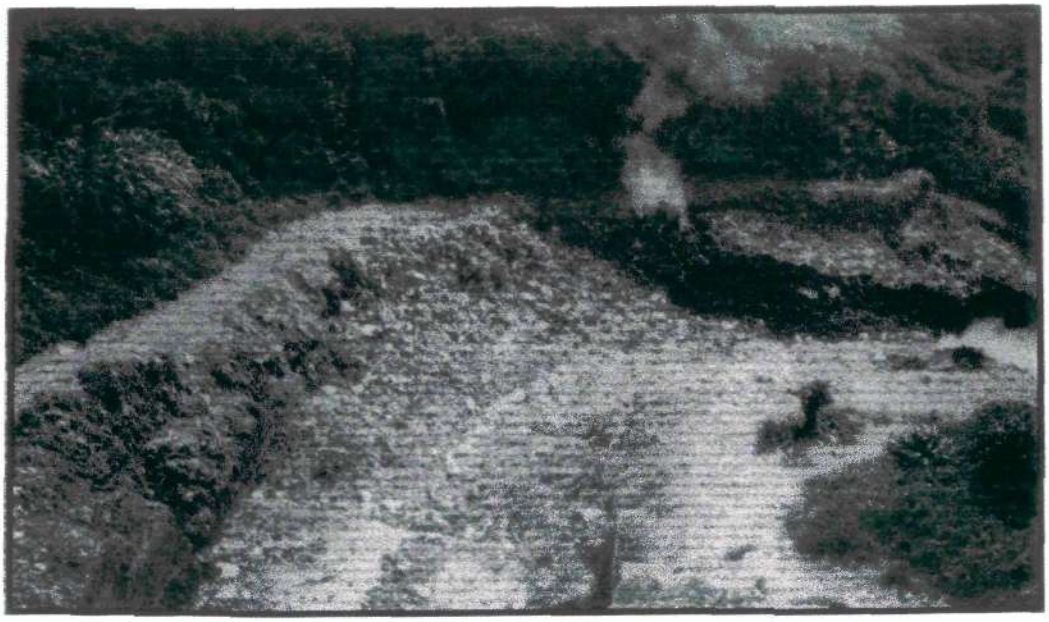
(b) improper distribution of community vats;

(c) low manpower to look after these vats;

(d) non-availability of suitable vehicles for collection and transportation of solid wastes;

(e) non-clearance of solid wastes regularly on routine basis;

(f) non-availability of proper tools and equipment;



Pic. 23 : The municipal dumping ground.

(g) no incinerator for burning hospital wastes and general municipal wastes

CONCLUSION

The increase in population in the town has resulted in congestion and pressure on existing infrastructures. Even though the municipality does not recognise any particular area as a slum there are areas where the living conditions of the people are poor and housing conditions sub-standard. About 41 percent of the poorer families have more than 6 members in their families. In about 58 percent cases in these areas the head of the family is illiterate but there is a growing consciousness among the families to send their children to schools. About 11 percent of the houses have earthen floors and walls and about 4 percent of the houses have roofs of plastic sheets. About 92 percent of the families depend either on public hydrants or on jhoras to get their daily need of water. Sanitary conditions are poor and about 48 percent of the families defecates in the open and about 43 percent of the families use the facility of community latrines.

In Kurseong town residential land use covers more area than the standard norm and increase in population has resulted in uncontrolled sprawl and unplanned development. Commercial land use has remained concentrated at the centre of the town where unhealthy living condition prevails. The private educational institutions in the town have come up in an unplanned manner. The topography of the town is an obstacle to the expansion of roads. The government offices and educational institutions are unevenly distributed and at misfit sites. The town lacks in parks and playgrounds and the ratio is far below the norm.

The Sub-divisional Hospital needs more beds to accommodate more patients, an expansion of space to start new disciplines and for better care of patients and an incinerator. Due to the change in the pattern of treatment of tuberculosis stricken patients, the TB Sanatorium's remains under utilised. The incinerator the hospital was destroyed in a fire and contagious refuse is thrown into open drains or dump pits.

Due to the location of shops on both the sides of the Hill Cart Road, lack of parking space and crossing of railway line near the meeting point of Acharya Bhanu Path with Hill Cart Road have resulted in congestion of the road. The Bus Terminus remains under utilised due to resistance from vehicle operators. Old water pipelines and their poor maintenance increase in population and illegal tapping of water pipelines are the important factors responsible for creating water crisis during the lean months. During March-May 1999,due to acute water crisis the municipality had to spend a big amount of money for supplying drinking water. Effluents from the sewer lines are discharged directly into the nearby jhoras. Lack of machinery is another

problem faced by the municipality for disposal of night soils. The solid waste of the town which also includes hospital wastes is dumped in an open ground and burnt which not only creates bad smell but also add harmful gases into the atmosphere. The rampant use of plastic shopping bags has aggravated the situation.

A thorough knowledge of different problems faced by the town will help in analysing the different developmental projects, which were undertaken in the past, projects undertaken at present and to be taken up in future. These developmental plans will reflect the direction of future growth of the town.