

COMPONENT - 1

Kurseong Municipality

DDP Main Book

2008-2009 to 2012-2013

Overall Introduction to Component 1

In preparation of Draft Development Planning, there are three components with 13 subcomponents in total. The component I among the three concentrate mainly on infrastructural planning. Component 1 has been subdivided into five subcomponents namely, Slum Infrastructure Improvement Plan, Intra-Municipal Infrastructure Improvement Plan, Trans-Municipal Linkages, Land Use and Development plan and Environment Management Plan. Documents like UDPFI guidelines, Urban West Bengal (2000-2002), Census 2001 and all relevant studies and reports were studied for the Situation Assessment.

2.1 Infrastructure, Land Use and Environment Management (Component-1)

Description of different areas and themes of planning

The process of preparation of plans for individual sub-components can broadly be divided into 2 phases. These are the Situation Assessment Phase and the Planning Phase. For Situation Assessment, Technical Analysis though Participatory Poverty Assessment, Infrastructure Assessment in Slums, etc was done in order to assess the current status of services, municipal assets and institutional capacity. Also review of relevant studies and reports were done for Situation Assessment. Besides, Citizens' Feedback through Ward Level Consultations, focused group discussions with specific stakeholders, and Workshops on Technical Analysis and Citizens' Feedback were held. Through these workshops options for addressing deficiencies and issues were identified, based upon which the Project Proposals were prepared. Once the Project Proposals were prepared for each Sub-Component, those were prioritised through a workshop by the respective DTG members.

Sl. No.	Component 1	Net Project Cost	Funding
1.1	Slum Infrastructure Improvement Plan	1234.44	IHSDP,MF, Sewerage scheme
1.2	Intra Municipal Infrastructure Improvement Plan	7057.75	UIDSSMT, 12th 5th Year Plan(Water), SFC, 12 th FC, EGS,KUSP, MF, ILCS
1.3	Trans Municipal Infrastructure Improvement Plan	0.00	WATER DEPT(GOVT OF INDIA), DEPT OF TOURISM, DISASTER MNGMNT CELL, WBPDC
1.4	Land use Development Plan	101.10	IDSMT, NCRF, 12 th FC, MF,
1.5	Environment Management Plan	23.36	NCRF, MF
Total for Component 1		8416.65	

Slum Infrastructure Improvement Plan
(Sub-component 1.1)

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Chapter 1: Development Objectives for Slum Infrastructure Improvement Plan

The twenty first century is expected to witness not only sustained population growth but also more of urbanization. Economic vibrancy of large urban centers is offering diverse employment opportunities and means of livelihood is the chief cause of migration to these areas. In India, migration has played an important role in accelerated urban growth. However, it concomitantly results in transfer of rural poverty to urban areas. Rural migrants are attracted to the urban areas for economic reasons regardless of the fact that physical infrastructure in terms of housing, drinking water supply; drainage etc. is not so adequate in the cities. Cities have been the hubs of economic growth. But planned urbanization has been marred to an extent by the excessive demand for basic amenities resulting in deterioration in the physical environment. The quality of life has thus suffered due to continuing influx of migrants and consequent widening of the gap between demand and supply of the essential services and other infrastructure in these areas. Unchecked migration, particularly aggravate housing problem resulting in increase in the land price. These force the poor to settle for informal solutions resulting in **mushrooming of slums and squatter settlements**. The problem of urban slums has been faced at some point of time by almost all the major cities throughout the developing world. Indian cities have not been an exception.

Need for Comprehensive Information & Slum Development Policy:

Sociologists, economists, environmentalists and town planners have perceived slums and problems of slum dwellers from their own point of view. But there is no denying the fact that the slums have become an integral part of the phenomenon of urbanization and are, in a way, manifestation of overall socio-economic policies and planning in the States and in the Country. But this should not discount the fact that the slum dwellers have been contributing significantly to the economy of the city by being a source of affordable labour supply both in the formal and informal sectors of the economy. Comprehensive information on the slums is essential for formulation of an effective and coordinated policy for their improvement/ rehabilitation as they have not received due attention in urban planning and have remained as an area of neglect. Piecemeal efforts in the past have brought about some improvement in the lives of the slum dwellers, but this is not enough. A lot more is required to be done to improve the quality of life in slums.

Slums: As defined in the Act:

Under section-3 of the Slum Area Improvement and Clearance Act, 1956, slums have been defined as mainly those residential areas where dwellings are in any respect unfit for human habitation by reasons of dilapidation, overcrowding, faulty arrangements and designs of such buildings, narrowness and faulty arrangement of streets, lack of ventilation, light or sanitation facilities or any combination of these factors which are detrimental to safety, health and morals. Thus, conceptually slums are compact overcrowded residential areas (and not isolated or scattered dwellings) unfit for habitation due to lack of one or more of

the basic infrastructure like drinking water, sanitation, electricity, sewerage, streets etc.

Steps taken for Comprehensive Planning for Slum Development:

It is in this background that in the 2001 Census, an innovative attempt was made to collect detailed demographic data about slum areas across the country, particularly, in cities and towns having population of 50,000 or above in 1991. Formation and identification of slum enumeration blocks prior to the conduct of 2001 Census has made it possible to compile and prepare special tables for slums. It is for the first time in the history of the country that the slum demography is being presented on the basis of the actual count. The systematic delineation of slums for collection of primary data on their population characteristics during population enumeration itself may perhaps be the first of its type in the world. What is significant is that this did not bring large additional burden on the financial resources or the manpower resources. The information on different characteristics of the slum dwellers has been collected through the same Census questionnaire of 'Household Schedule', which was canvassed for the population enumeration in the country at the 2001 Census.

The analysis of the data in this report provided an overview of the population characteristics of slums and squatter settlements and is expected to serve as a benchmark for pragmatic and realistic town planning while dealing with the issue of slums and slum dwellers.

Genesis of the Programme:

It is with these information in hand that the National Urban Renewal Mission (NURM), a centrally sponsored programme has been launched in the 10th Plan Period with the objective of up-gradation and development of 'Physical Urban Infrastructure' along with improvement of Basic Services for the urban poor as well as boosting the growth of the towns of the state in a uniform and harmonic manner. **Integrated Housing and Slum Development Programme (IHSDP)** forms an important part of this Programme.

It is anticipated that the introduction of the programme will go a long way to upgrade and improve the basic urban infrastructure. The ULB will be capable of utilizing the success of the programme for further Municipal developmental works and up gradation of the quality of civic life. It will also help the ULB to become self-reliant and ultimately the town will be a potential generator of economic momentum and activities in the desired direction.

Basic Aim of the IHSDP scheme:

The scheme aims at up-gradation and development of Physical Infrastructure along with improvement of Basic Services for the urban poor as well as improvement of the socio-economic infrastructure of the urban slums in close co-ordination and harmony with the development of the town as a whole.

Basic Slum Parameters in West Bengal:

Urban slum areas in West Bengal have been characterized by the following civic parameters –

- ❑ Excessive population density.
- ❑ Inadequate physical infrastructure like roads, drainage, sanitation, water supply, streetlights etc.
- ❑ Major portion of population living below poverty line.
- ❑ High rate of unemployment.
- ❑ Low literacy rate.
- ❑ Inadequate health care facility associated with high rate of morbidity and mortality.
- ❑ Absence of recreation and social facilities.
- ❑ Poor quality of shelter / dwellings.
- ❑ High rate of crime incidence.
- ❑ High rate of social disorder and degraded quality of life.

Development objectives set for the ULB for basic municipal services at ULB-wide scale

Goal: To make slums vibrant in terms of socio-economic indicators, raising the living standards of slum dwellers through education and employment, providing them basic civic amenities and helping them to help themselves and ensuring total awareness to maintain environmental sanctity ecological balance.

Situation Assessment	Development objectives
➤ Inadequate water supply in the slums	➤ Each slum household to have access to drinking water
➤ Poor condition of connecting/access road stretches	➤ Awareness and empowerment of the slum dwellers to protect the assets created within the slums
➤ Inadequate coverage of drainage	➤ To ensure Clean and Healthy Slum Environment with adequate access to educational facility

➤ Water logging during the major part of monsoon	
➤ Unhealthy sanitary conditions in some cases	
➤ Poor condition of the dwelling shelters	➤ Improved standardized basic civic amenities for the slum dwellers at par with all
➤ Inadequate coverage under solid waste collection mechanism	
➤ Poor socio economic condition of the slum dwellers	➤ Employment generation activities to be initiative

Chapter 2: Situation Assessment of Slum Infrastructure Condition

Details of on-going schemes and projects: Details of ongoing projects which are in the process of design, tendering and/or construction is in progress, are explained below.

Table SIP-1: Status of Ongoing Projects/Initiatives

Sr. No.	Project name, Approx. Project cost and Location	Implementing Scheme Name	Status and issues if any	Targeted time for completion	Source of fund
1.	Comprehensive development of Sanatorium Busty, Ward No. 01, and Project cost is 95.40462 Lakhs.	IHSDP	On going	2009-2010	IHSDP
2.	Comprehensive development of Upper Tekbir busty, Ward No. 02 and project cost is 84.89039 Lakhs.	IHSDP	On going	2010-2011	IHSDP
3.	Comprehensive development of Lower Tekbir Busty, ward no. 03 and project cost is Rs. 70.277075 Lakhs	IHSDP	On going	2011-2012	IHSDP
4.	Comprehensive development of Upper Dumaram Busty, ward No. 04 and project cost is 88.548795 Lakhs	IHSDP	On going	2009-2010	IHSDP
5	Comprehensive development Lower Dumaram Busty, ward No. 05 and Project cost is Rs. 74.103235 Lakhs	IHSDP	On going	2010-2011	IHSDP
6	Comprehensive development of Upper Sherpa Busty, Ward No. 06 and project cost is Rs. 83.498425 Lakhs	IHSDP	On going	2009-2010	IHSDP

Sr. No.	Project name, Approx. Project cost and Location	Implementing Scheme Name	Status and issues if any	Targeted time for completion	Source of fund
7	Comprehensive development of Lower Sherpa Busty, ward No. 07 and project cost is Rs. 140.91996 Lakhs	IHSDP	Situation Assessment of Slum Infrastructure	2010-2011	IHSDP
8	Comprehensive development of Subedar Busty, Ward No.07 and Project cost is Rs. 71.773985 Lakhs	IHSDP	On going	2011-2012	IHSDP
9	Comprehensive development of Sudhapatole Busty, ward no. 09 and project cost is Rs. 71.39838 Lakhs	IHSDP	On going	2009-2010	IHSDP
10	Comprehensive development of Buddha Gram/Gandhi Gram, ward No. 10 and cost is Rs. 59.997355 Lakhs	IHSDP	On going	2010-2011	IHSDP
11	Comprehensive development of Park Location Busty, ward no. 13 and cost is Rs. 60.52812 Lakhs	IHSDP	On going	2009-2010	IHSDP
12	Comprehensive development of Manbeer Busty, ward No. 14 and cost is Rs. 60.00256 Lakhs	IHSDP	On going	2010-2011	IHSDP
13	Comprehensive development of Lower Subedar Busty, ward no. 16 and cost is Rs. 56.144385 Lakhs	IHSDP	On going	2011-2012	IHSDP
14	Comprehensive development of Rajbari Ranikoop Busty, ward No.17 and cost Rs. 60.252685 Lakhs	IHSDP	On going	2009-2010	IHSDP
15	Comprehensive development of Ujery busty, Ward No. 19 and Project cost is Rs. 65.959945 Lakhs	IHSDP	On going	2010-2011	IHSDP
16	Comprehensive development of Naya Busty, Ward No. 20 and Project cost is Rs. 54.18635 Lakhs	IHSDP	On going	2009-2010	IHSDP

Situation Assessment of Slum Infrastructure

The State of West Bengal witnessed significantly a high level of urbanization during the decades: 70's to 80's. The urban population in West Bengal was estimated as 27.30% of the total population in the 2001 census report as against 28.03% in the entire country. The over all density of urban population in the west Bengal in 2000-01 was estimated as 6,798 per Sq.Km against the national average of 4,098/sq.km.

Slum areas are nothing new to the urban towns of West Bengal. It has been very much in existence from long time back for providing accommodation to the Economically Weaker Section as well as the backward section of the community. Rapid increase in the growth of slums in and around the town takes place due to increasing industrialization. The slum area proliferation took place in massive and speedy manner after partition of Bengal in the urban areas of the State where the uprooted refugees from the other side of the border took their shelter and colonies came up by and large all over the State, mostly in the urban areas where the displaced persons looked for their earnings and carrying out livelihood. Exodus of refugees from erstwhile East Pakistan occurred again during the liberation war of Bangladesh. Again with the rapid increase of activities in the urban towns in West Bengal further slum areas proliferation took place simultaneously with their growth. Urban slum vis-à-vis the decline in the rural population living below the poverty line indicates continuous migration of respective group of people to the urban areas in search of employment, economic and livelihood needs.

As the density of urban population of West Bengal was 50% more than the national average, the slum population in the State is also much more than the average national slum population, which accounts for 35% to 40% of the urban population.

Details of slum lists available (approved by the Board of Council) with analysis table on the basis of Household Survey / Socio economic Survey / Focus Slum Survey

There are 16 slums in the Municipality.

SI No.	Name of slum	Ward No.
1	Sanatorioum Busty	1
2	Upper Tekbir Busty	2
3	Lower Tekbir Busty	3
4	Upper Dumaram Busty	4
5	Lower Dumaram Busty	5
6	Upper Sherpa Busty	6
7	Lower Sherpa Busty	7
8	Subedar Busty	7

SI No.	Name of slum	Ward No.
9	Sudhapatole Busty	9
10	Buddha Gram / Gandhi Gram	10
11	Park Location Busty	13
12	Manbeer Busty	14
13	Lower Subedar Busty	16
14	Rajbari Ranikoop Busty	17
15	Ujery Busty	19
16	Naya Busty	20

A Slum survey was conducted by the ULB as per the guideline, the overall findings of the same are provided below.

Figure 01, Ward Wise Slum Population (*As per IHSDP, 2007*)

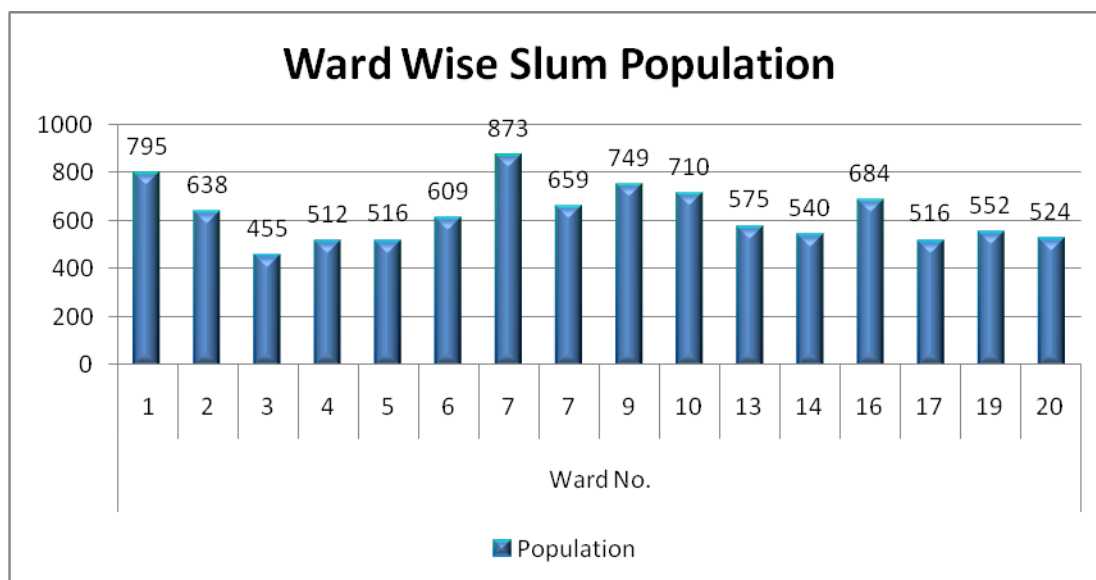


Figure 02, Slum Population Vs. Total population of Kurseong (As per IHSDP, 2007)

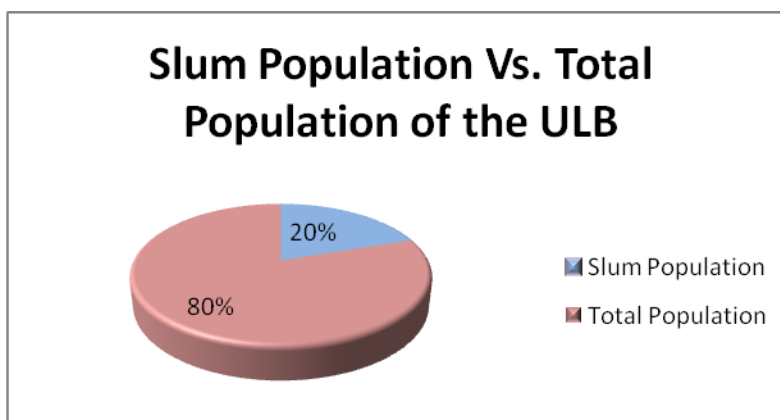


Table SIP-2: Broad Present Infrastructure & socio-economic condition of Slums

Slum name	Ward	Area	Population	BPL	Illiterate Population	No of Drop out children in slum	No. of non earning Population in slum	No of families having woman earning member in slum	No of slum population remote access to Drinking water source	Slum population having access road to house as Kutcha road	Slum population identifying water logging > 1 day	Slum population identifying use of toilet as others	Slum population identifying their houses as Kutcha & Other
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1	2	3	4	5	6	7	8	9	10	11	12	13	14
Sanatorium Busty	01	.01	795	636	596	358	159	676	620	652	0	517	700
Upper Tekbir Busty	02	.03	638	510	479	287	128	542	498	523	0	415	561
Lower Tekbir Busty	03	.015	455	364	341	205	91	387	355	373	0	296	400
Upper Dumaram Busty	04	.025	512	410	384	230	102	435	399	420	0	333	451
Lower Dumaram Busty	05	.02	516	413	387	232	103	439	402	423	0	335	454
Upper Sherpa Busty	06	.06	609	487	457	274	122	518	475	499	0	396	536
Lower Sherpa Busty	07	.024	873	698	655	393	175	742	681	716	0	567	768
Subedar Busty	07	.018	659	527	494	297	132	560	514	540	0	428	580
Sudhapatole Busty	09	.032	749	599	562	337	150	637	584	614	0	487	659
Buddha Grm/Gandhi grm	10	.036	710	568	533	320	142	604	554	582	0	462	625
Park Location busty	13	.019	575	460	431	259	115	489	449	472	0	374	506
Manbeer Busty	14	.022	540	432	405	243	108	459	421	443	0	351	475
Lower Subedar Busty	16	.021	684	547	513	308	137	581	534	561	0	445	602
Rajbari Ranikooop Busty	17	.034	516	413	387	232	103	439	402	423	0	335	454
Ujeri Busty	19	.031	552	442	414	248	110	469	431	453	0	359	486
Naya Busty	20	.033	524	419	393	236	105	445	409	430	0	341	461

Demand Analysis (Technical and Citizen Feed back) & Quick Estimate

Identification of priority sectors / service area for all slums

Slum infrastructure component mainly covered all aspects of basic services in the slums which included:

- a) Water supply
- b) sewerage , sanitation and local drainage
- c) solid waste management
- d) Internal passages and pavements
- e) street lighting
- f) housing and shelter

Besides this, the implementation plan for the IHSDP was also integrated with this section to avoid any overlap of initiatives in the slum areas. Accordingly, this section has been

prepared as supplementary plan to the IHSDP as the planning process of the said project has been completed and the implementation has just commenced.

Feedback report regarding demands of slum infrastructure improvement works, compared with technical demand analysis of the slum dwellers through their representatives / RCVs for each slums – has been given as per following table. Tools & Techniques used to capture feedback to be described in plan document are also detailed below (Refer *Annexure 7*).

Inputs from the community members were collected for design and configuration of a project that will meet the real needs of people. Inputs about community priorities were sought and understood through:

- Discussions with potential beneficiaries during field visit
- Inputs from Community Organisers
- Inputs from members of the CDS-NHC-NHG structure

Description of Workshop-1

The DPG was invited the members of Ward committees and CDS for this Workshop-1. Agenda for Workshop 1 was prepared in standard format provided and circulated to all invitees, one week prior to the scheduled date of meeting. The projects for improvement of slum infrastructure were taken up considering the IHSDP.

Community feedback on various issues were taken during the project identification stage, in terms of preferred location of common community asset; willingness to pay, operate and maintain; constraints faced in accessing common facilities; needs of specific user categories (children, women, adolescent girls, aged, etc.); seasonality of problems faced; and a number of other qualitative issues. Community meeting with participants as women from the community were held in many slum cluster. The DTG1 used various other techniques and tools for receiving community feedback such as transect walks, social mapping, and resource mapping to understand the same.

Table SIP-3: Infrastructure Demand and their priority and quick estimate of Slums

Slum No./ Name	Ward No.	Population	Area of Slum (Sq.Km)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
1/Sanatorium busy	I	795	0.01	Dwelling Units	43	Each	112500	4837500
				Drainage	345	Per Meter	1282	442290
				Concrete Roads	915	Per Sq. M.	659	602985
				Bituminous Road	975	Per Sq. M.	693	675675
				Cinder Track	125	Per Sq. M.	313	39125
				Street Lights	9	Each	6898	62082
				Hedges	200	Per Meter	100.5	20100
				Guard Wall	256	Per Meter	3749	959744
				Water Supply	680	Per Meter	527	358360
				Digester		Each	3443966	0
				Livelihood Centre	1	Each	304874	304874
				Community Centre	1	Each	1237727	1237727
				Informal Market		Each	272856	0
				Animal Pen		Each	947969	0
Total								9540462

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Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
2/Upper Tekbir Busty	II	638	0.03	Dwelling Units	38	Each	112500	4275000
				Drainage	330	Per Meter	1282	423060
				Concrete Roads	1095	Per Sq. M.	659	721605
				Bituminous Road	1000	Per Sq. M.	693	693000
				Cinder Track	122	Per Sq. M.	313	38186
				Street Lights	7	Each	6898	48286
				Hedges	312	Per Meter	100.5	31356
				Guard Wall	176	Per Meter	3749	659824
				Water Supply	685	Per Meter	527	360995
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre	1	Each	1237727	1237727
				Informal Market		Each	272856	0
				Animal Pen		Each	947969	0
Total								8489039
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
3/Lower Tekbir Busty	III	455	0.015	Dwelling Units	34	Each	112500	3825000
				Drainage	365	Per Meter	1282	467930
				Concrete Roads	1002	Per Sq. M.	659	660318
				Bituminous Road	820	Per Sq. M.	693	568260
				Cinder Track	120	Per Sq. M.	313	37560
				Street Lights	8	Each	6898	55184
				Hedges	325	Per Meter	100.5	32662.5
				Guard Wall	216	Per Meter	3749	809784
				Water Supply	505	Per Meter	527	266135
				Digester		Each	3443966	0
				Livelihood Centre	1	Each	304874	304874
				Community Centre		Each	1237727	0
				Informal Market		Each	272856	0
				Animal Pen		Each	947969	0
Total								7027707.5
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
4/Upper Dumaram Busty	IV	512	0.025	Dwelling Units	40	Each	112500	4500000
				Drainage	320	Per Meter	1282	410240
				Concrete Roads	1265	Per Sq. M.	659	833635
				Bituminous Road	865	Per Sq. M.	693	599445
				Cinder Track	120	Per Sq. M.	313	37560
				Street Lights	7	Each	6898	48286
				Hedges	375	Per Meter	100.5	37687.5
Guard Wall	226	Per Meter	3749	847274				

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				Water Supply	575	Per Meter	527	303025
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre	1	Each	1237727	1237727
				Informal Market		Each	272856	0
				Animal Pen		Each	947969	0
Total								8854879.5
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
5/Lower Dumaram Busty	V	516	0.02	Dwelling Units	42	Each	112500	4725000
				Drainage	345	Per Meter	1282	442290
				Concrete Roads	1110	Per Sq. M.	659	731490
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track	125	Per Sq. M.	313	39125
				Street Lights	6	Each	6898	41388
				Hedges	395	Per Meter	100.5	39697.5
				Guard Wall	216	Per Meter	3749	809784
				Water Supply	525	Per Meter	527	276675
				Digester		Each	3443966	0
				Livelihood Centre	1	Each	304874	304874
				Community Centre		Each	1237727	0
				Informal Market		Each	272856	0
				Animal Pen		Each	947969	0
Total								7410323.5
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
6/Upper Sherpa Busty	VI	609	0.026	Dwelling Units	40	Each	112500	4500000
				Drainage	430	Per Meter	1282	551260
				Concrete Roads	1070	Per Sq. M.	659	705130
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track	125	Per Sq. M.	313	39125
				Street Lights	7	Each	6898	48286
				Hedges	415	Per Meter	100.5	41707.5
				Guard Wall	233	Per Meter	3749	873517
				Water Supply	670	Per Meter	527	353090
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre	1	Each	1237727	1237727
				Informal Market		Each	272856	0
				Animal Pen		Each	947969	0
Total								8349842.5

Draft Development Plan: 2008-09 to 2012-13, Kurseong Municipality

Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
7/Lower Sherpa Busty	VII	873	0.024	Dwelling Units	52	Each	112500	5850000
				Drainage	445	Per Meter	1282	570490
				Concrete Roads	1595	Per Sq. M.	659	1051105
				Bituminous Road	890	Per Sq. M.	693	616770
				Cinder Track	122	Per Sq. M.	313	38186
				Street Lights	9	Each	6898	62082
				Hedges	350	Per Meter	100.5	35175
				Guard Wall	226	Per Meter	3749	847274
				Water Supply	615	Per Meter	527	324105
				Digester	1	Each	3443966	3443966
				Livelihood Centre	1	Each	304874	304874
				Community Centre		Each	1237727	0
				Informal Market		Each	272856	0
				Animal Pen	1	Each	947969	947969
Total								14091996
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
8/Suberdar Busty	VII	659	0.018	Dwelling Units	36	Each	112500	4050000
				Drainage	335	Per Meter	1282	429470
				Concrete Roads	915	Per Sq. M.	659	602985
				Bituminous Road	950	Per Sq. M.	693	658350
				Cinder Track		Per Sq. M.	313	0
				Street Lights	7	Each	6898	48286
				Hedges	475	Per Meter	100.5	47737.5
				Guard Wall	211	Per Meter	3749	791039
				Water Supply	525	Per Meter	527	276675
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre		Each	1237727	0
				Informal Market	1	Each	272856	272856
				Animal Pen		Each	947969	0
Total								7177398.5
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
9/Sudhapatole Busty	IX	749	0.032	Dwelling Units	41	Each	112500	4612500
				Drainage	345	Per Meter	1282	442290
				Concrete Roads	815	Per Sq. M.	659	537085
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track		Per Sq. M.	313	0
				Street Lights	6	Each	6898	41388
				Hedges	460	Per Meter	100.5	46230
				Guard Wall	231	Per Meter	3749	866019

Draft Development Plan: 2008-09 to 2012-13, Kurseong Municipality

				Water Supply	610	Per Meter	527	321470
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre		Each	1237727	0
				Informal Market	1	Each	272856	272856
				Animal Pen		Each	947969	0
Total								7139838
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
10/Buddha Grm/Ganhi Grm	X	710	0.036	Dwelling Units	30	Each	112500	3375000
				Drainage	330	Per Meter	1282	423060
				Concrete Roads	1020	Per Sq. M.	659	672180
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track		Per Sq. M.	313	0
				Street Lights	8	Each	6898	55184
				Hedges	315	Per Meter	100.5	31657.5
				Guard Wall	226	Per Meter	3749	847274
				Water Supply	612	Per Meter	527	322524
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre		Each	1237727	0
				Informal Market	1	Each	272856	272856
				Animal Pen		Each	947969	0
Total								5999735.5
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
11/Park Location Busty	XIII	575	0.019	Dwelling Units	31	Each	112500	3487500
				Drainage	340	Per Meter	1282	435880
				Concrete Roads	835	Per Sq. M.	659	550265
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track	120	Per Sq. M.	313	37560
				Street Lights	7	Each	6898	48286
				Hedges	310	Per Meter	100.5	31155
				Guard Wall	235	Per Meter	3749	881015
				Water Supply	585	Per Meter	527	308295
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre		Each	1237727	0
				Informal Market	1	Each	272856	272856
				Animal Pen		Each	947969	0
Total								6052812
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
12/Beaman	XIV	540	0.022	Dwelling Units	32	Each	112500	3600000

Draft Development Plan: 2008-09 to 2012-13, Kurseong Municipality

				Drainage	336	Per Meter	1282	430752
				Concrete Roads	920	Per Sq. M.	659	606280
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track	122	Per Sq. M.	313	38186
				Street Lights	6	Each	6898	41388
				Hedges	370	Per Meter	100.5	37185
				Guard Wall	206	Per Meter	3749	772294
				Water Supply	511	Per Meter	527	269297
				Digester		Each	3443966	0
				Livelihood Centre	1	Each	304874	304874
				Community Centre		Each	1237727	0
				Informal Market		Each	272856	0
				Animal Pen		Each	947969	0
Total								6100256
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
13/Loweer Subedar Busty	XVI	684	0.021	Dwelling Units	20	Each	112500	2250000
				Drainage	315	Per Meter	1282	403830
				Concrete Roads	895	Per Sq. M.	659	589805
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track	125	Per Sq. M.	313	39125
				Street Lights	5	Each	6898	34490
				Hedges	425	Per Meter	100.5	42712.5
				Guard Wall	196	Per Meter	3749	734804
				Water Supply	535	Per Meter	527	281945
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre	1	Each	1237727	1237727
				Informal Market		Each	272856	0
Animal Pen		Each	947969	0				
Total								5614438.5
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
14/Rajpuri Ranikoop Busty	XVII	516	0.034	Dwelling Units	31	Each	112500	3487500
				Drainage	360	Per Meter	1282	461520
				Concrete Roads	910	Per Sq. M.	659	599690
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track	120	Per Sq. M.	313	37560
				Street Lights	6	Each	6898	41388
				Hedges	395	Per Meter	100.5	39697.5
				Guard Wall	186	Per Meter	3749	697314
				Water Supply	675	Per Meter	527	355725
				Digester		Each	3443966	0
				Livelihood Centre	1	Each	304874	304874
				Community Centre		Each	1237727	0
				Informal Market		Each	272856	0

Draft Development Plan: 2008-09 to 2012-13, Kurseong Municipality

				Animal Pen		Each	947969	0
Total								6025268.5
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
15/Ujeri Busty	XIX	552	0.031	Dwelling Units	26	Each	112500	2925000
				Drainage	370	Per Meter	1282	474340
				Concrete Roads	1200	Per Sq. M.	659	790800
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track	125	Per Sq. M.	313	39125
				Street Lights	5	Each	6898	34490
				Hedges	385	Per Meter	100.5	38692.5
				Guard Wall	206	Per Meter	3749	772294
				Water Supply	538	Per Meter	527	283526
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre	1	Each	1237727	1237727
				Informal Market		Each	272856	0
				Animal Pen		Each	947969	0
Total								6595994.5
Slum No./ Name	Ward No.	Population	Area of Slum (Sq.m)	Development Sectors	Priority Position of Development Sectors	Unit	Rate Per Unit (Rs.)	Total Amount
16/Naya Busty	XX	524	0.033	Dwelling Units	29	Each	112500	3262500
				Drainage	305	Per Meter	1282	391010
				Concrete Roads	940	Per Sq. M.	659	619460
				Bituminous Road		Per Sq. M.	693	0
				Cinder Track	125	Per Sq. M.	313	39125
				Street Lights	5	Each	6898	34490
				Hedges	320	Per Meter	100.5	32160
				Guard Wall	204	Per Meter	3749	764796
				Water Supply	522	Per Meter	527	275094
				Digester		Each	3443966	0
				Livelihood Centre		Each	304874	0
				Community Centre		Each	1237727	0
				Informal Market		Each	272856	0
				Animal Pen		Each	947969	0
Total								5418635

Quick estimates final requirement of 'slum infrastructure improvement' on cost per unit basis, from earlier experience of Slum Improvement Schemes.

Considering the socio-economic survey and the available infrastructure of the slum, the following slum scorecard was prepared.

All reports of survey & studies and drawings, Annexure, tables and formats, review reports, sketches, photographs as necessary to illustrate and provide details on

infrastructure situation assessment, and Calculations for arriving Quick Estimate are attached in **Annexure Volume 3**.

Chapter 3: Slum Prioritisation for works with Govt Funds (Tied) and Self Funds (Untied)

Prioritisation of slums on the basis of SUDA House hold survey report / **Annexure 5** specified in DDP Guideline Book 3 / Slum priority already available from other government Report and Alternative Slum Prioritisation process approved by KUSP, CMU is detailed.

Table SIP-4: Slum Priority (Provisional Slum Priority) for Programme Funds

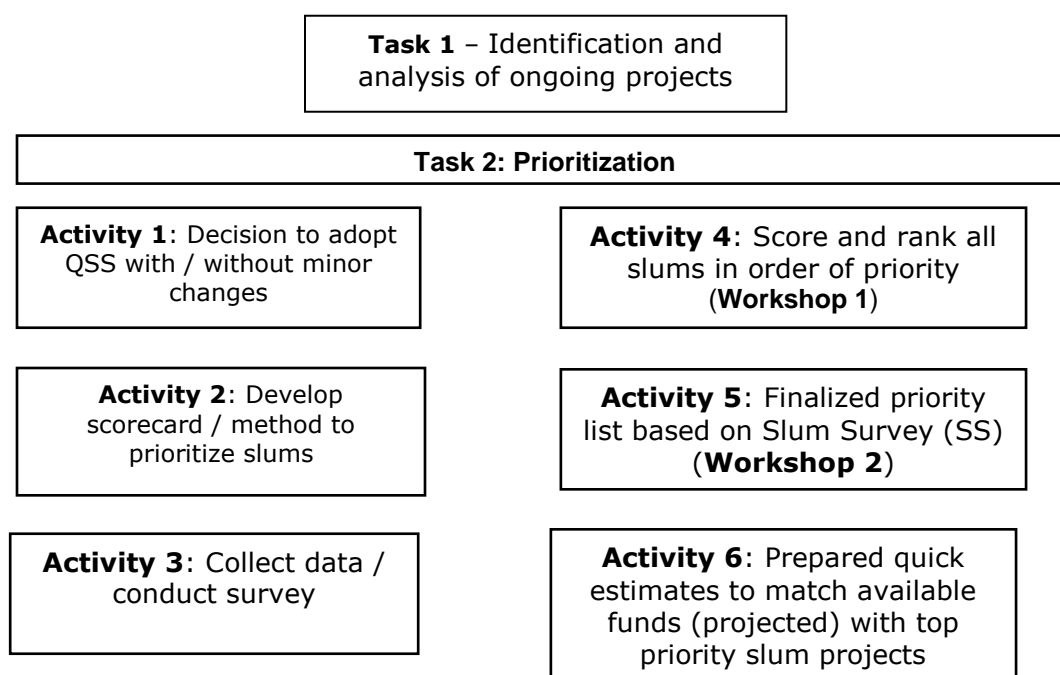
As per results of Household survey			As agreed at Workshop 1		Justification / rationale for change in priority number of the slum
Slum Score	Priority Number	Name of slum	Priority number	Name of slum	
	1.	Lower Tekbir Busty at Ward No. 3	1.	Lower Tekbir Busty at Ward No. 3	As per IHSDP Project
	2.	Upper Sherpa Busty at Ward No 6	2.	Upper Sherpa Busty at Ward No 6	
	3.	Lower Sherpa Busty at Ward No 7	3.	Lower Sherpa Busty at Ward No 7	
	4.	Subedar Busty at Ward No 7	4.	Subedar Busty at Ward No 7	
	5.	Buddha Grm / Gandhi Gram at Ward No 10	5.	Buddha Grm / Gandhi Gram at Ward No 10	
	6.	Rajbari Ranikoop Busty at Ward No 17	6.	Rajbari Ranikoop Busty at Ward No 17	
	7.	Ujery Busty at Ward No 19	7.	Ujery Busty at Ward No 19	
	8.	Naya Busty at Ward No 20	8.	Naya Busty at Ward No 20	
	9.	Sanatorium Busty at Ward No 1	9.	Sanatorium Busty at Ward No 1	
	10.	Upper Tekbir Busty at Ward No. 2	10.	Upper Tekbir Busty at Ward No. 2	
	11.	Upper Dumaram Busty at Ward No.4	11.	Upper Dumaram Busty at Ward No.4	
	12.	Lower Dumaram Busty at Ward No 5	12.	Lower Dumaram Busty at Ward No 5	

	13.	Sudhapatole Busty at Ward No 9	13.	Sudhapatole Busty at Ward No 9	
	14.	Park Location Busty at Ward No 13	14.	Park Location Busty at Ward No 13	
	15.	Manbeer Busty at Ward No 14	15.	Manbeer Busty at Ward No 14	
	16.	Lower Subedar Busty at Ward No 16	16.	Lower Subedar Busty at Ward No 16	

Description of Workshop-2

To facilitate this decision, DTG1 first compiled the findings of the survey. The DPG was also invited the members of Ward committees and CDS for this Workshop 2. Agenda for Workshop 2 was prepared in standard format provided and circulated to all invitees, one week prior to the scheduled date of meeting. The prioritisation was approved considering the above and the proposal submitted for IHSDP was kept in mind.

Figure 2, Process Flow for Prioritisation of Slums



DTG 1 also visited the sites and examined the issues on the field. Each of these inputs was examined to identify key constraints and potential areas for improvements. The above Slum Priority for Programme Funds was followed for Own Source funds to be finalised through 'Workshop 2'.

Table SIP-5: Slum Priority for Own Source Funds (Output of Workshop-3) As per results of Alternative survey / Analysis and As agreed at Workshop 3

Priority Number	Name of slum	Total Slum Score	Remarks / Suggestion
1.	Lower Tekbir Busty at Ward No. 3	As per IHSDP	Unchanged
2.	Upper Sherpa Busty at Ward No 6	As per IHSDP	Unchanged
3.	Lower Sherpa Busty at Ward No 7	As per IHSDP	Unchanged
4.	Subedar Busty at Ward No 7	As per IHSDP	Unchanged
5.	Buddha Grm / Gandhi Gram at Ward No 10	As per IHSDP	Unchanged
6.	Rajbari Ranikoop Busty at Ward No 17	As per IHSDP	Unchanged
7.	Ujery Busty at Ward No 19	As per IHSDP	Unchanged
8.	Naya Busty at Ward No 20	As per IHSDP	Unchanged
9.	Sanatorioum Busty at Ward No 1	As per IHSDP	Unchanged
10.	Upper Tekbir Busty at Ward No. 2	As per IHSDP	Unchanged
11.	Upper Dumaram Busty at Ward No.4	As per IHSDP	Unchanged
12.	Lower Dumaram Busty at Ward No 5	As per IHSDP	Unchanged
13.	Sudhapatole Busty at Ward No 9	As per IHSDP	Unchanged
14.	Park Location Busty at Ward No 13	As per IHSDP	Unchanged
15.	Manbeer Busty at Ward No 14	As per IHSDP	Unchanged
16.	Lower Subedar Busty at Ward No 16	As per IHSDP	Unchanged

Output of Citizens' Feedback in Prioritised Slums

Feedback from the community members is essential for planning of projects to address the actual need of the people. The community priorities have been sought and understood, through following:

- i. Discussions with potential beneficiaries during field visit.
- ii. Inputs from the members of the community structure (CDS, NHC, NHG) wherever possible and also from Ward Committees and Councilors.
- iii. Inputs from municipality engineers, wherever possible.
- iv. In depth discussions with stakeholders were held to arrive at the key issues as perceived

Sector/service areas in descending order of priority	Works required/ Projects	Suggestive Measures
1	Shelter	Providing pucca shelter at slums
2	Drainage	Providing nearest pucca drain
3	Water Supply	Providing nearest and increasing number of water connection in the slums taken up for infrastructure development to ensure regular water supply of good quality
		The areas where piped water supply is not feasible technically adequate hand tube wells will be installed as per standard norms
4	Road	Providing all weather access road or access from all houses to main road
5	Sewerage and Sanitation	Provision of adequate two pits pour flash latrine to ensure hygienic sanitation among the slum dwellers.
		As the slums are mostly situated in the low-lying areas and there is no sewerage system within the municipality the slums are facing great problem of water logging during the major portion of the year.
6	Solid Waste Management	To ensure door-to-door collection in the slum areas at a subsidized rate.
7	Street Light	Slum areas have inadequate illumination with poles being at a great distance in some cases leaving dark stretches in the night.
		In some cases there are no street phase and thus making it a non-electricity area.

Role of CDS

At this juncture it would be worth mentioning the role of different stakeholders at the community level. The Community Development Society, popularly known as CDS, would play a pivotal role right from planning to execution of slum level infrastructure work. Another committee formed at the Slum level recently, BWMC (Bustee Works Management Committee) will give handholding support to the CDS for effective and timely execution of the different projects. They would also participate at the planning level. The work/projects will be executed through the CDS who would carry out the work as a community contractor and BWMC would oversee their work at the execution level. The operation and maintenance of the existing and newly created assets would be the responsibility of the BWMC. Yet the network level maintenance will be maintained by the CDS. CDS would also act as the coordinating body and will keep liaison with the municipality on the progress of work and other execution aspects.

Chapter 4: Project proposals

Description of different **Themes** under which this was formulated are

Theme 1: Project proposals for improvement in operations and maintenance – Nil

Theme 2: Project proposals for significant capital investments – Sixteen comprehensive projects were identified in conjunction to supplement the proposals developed for the ongoing IHSDP. These projects to include infrastructure / asset creation in terms of Construction Dwelling Units, Drainage, Concrete Roads, Bituminous Road, Cinder Track, Street Lights, Hedges, Guard Wall, Water Supply, Digester, Livelihood Centre, Community Centre, Informal Market, Animal Pen.

Theme 3: Project proposals for community participation –

Community toilets construction with capital contribution from slum dwellers

Theme 4: Project proposal for service needs of informal settlements / clusters / squatters –

- Awareness campaigns in slums on environmental issues, Health issues with special emphasis on Drug addiction & HIV/AIDS by HHW/ NGOs
- Conducting non-formal education camps in slums by CDS/RCVs
- Training & Awareness on scientific garbage cleaning to Slum dwellers

Initiatives on cost recovery of infrastructure projects have been incorporated in these projects.

All the projects have a minimal component of recovery of cost for the assets and services being utilised by the slum dwellers.

Table SIP-6: List of Projects for Slum Infrastructure Improvement

Priority No.	Project Title	Theme	Start Date	End Date	TCR	ARE	ISF	Fund Name
1	Comprehensive infrastructure development of Lower Tekbir Busty at Ward No. 3	Theme 2	Sep-08	Sep-09	70.00	0.00	0.00	IHSDP
2	Comprehensive infrastructure development of Upper Sherpa Busty at Ward No 6	Theme 2	Sep-08	Sep-09	83.49	0.00	0.00	IHSDP
3	Comprehensive infrastructure development of Lower Sherpa Busty at Ward No 7	Theme 2	Sep-08	Sep-09	140.91	0.00	0.00	IHSDP
4	Comprehensive infrastructure development of Subedar Busty at Ward No 7	Theme 2	Sep-08	Sep-09	95.06	0.00	0.00	IHSDP
5	Comprehensive infrastructure development of Buddha Grm / Gandhi Gram at Ward No 10	Theme 2	Sep-08	Sep-09	59.99	0.00	0.00	IHSDP
6	Comprehensive infrastructure development of Rajbari Ranikoop Busty at Ward No 17	Theme 2	Sep-08	Sep-09	60.25	0.00	0.00	IHSDP
7	Comprehensive infrastructure development of Ujery Busty at Ward No 19	Theme 2	Sep-08	Sep-09	65.95	0.00	0.00	IHSDP
8	Comprehensive infrastructure development of Naya Busty at Ward No 20	Theme 2	Sep-08	Sep-09	58.01	0.00	0.00	IHSDP
9	Comprehensive infrastructure development of Sanatorium Busty at Ward No	Theme 2	Oct-09	Oct-10	95.40	0.00	0.00	IHSDP

Priority No.	Project Title	Theme	Start Date	End Date	TCR	ARE	ISF	Fund Name
	1							
10	Comprehensive infrastructure development of Upper Tekbir Busty at Ward No. 2	Theme 2	Oct-09	Oct-10	84.89	0.00	0.00	IHSDP
11	Comprehensive infrastructure development of Upper Dumaram Busty at Ward No.4	Theme 2	Oct-09	Oct-10	88.54	0.00	0.00	IHSDP
12	Comprehensive infrastructure development of Lower Dumaram Busty at Ward No 5	Theme 2	Oct-09	Oct-10	74.10	0.00	0.00	IHSDP
13	Comprehensive infrastructure development of Sudhapatole Busty at Ward No 9	Theme 2	Oct-09	Oct-10	71.39	0.00	0.00	IHSDP
14	Comprehensive infrastructure development of Park Location Busty at Ward No 13	Theme 2	Oct-09	Oct-10	60.52	0.00	0.00	IHSDP
15	Comprehensive infrastructure development of Manbeer Busty at Ward No 14	Theme 2	Oct-09	Oct-10	61.00	0.00	0.00	IHSDP
16	Comprehensive infrastructure development of Lower Subedar Busty at Ward No 16	Theme 2	Oct-09	Oct-10	56.14	0.00	0.00	IHSDP
17	Awareness campaigns in slums on environmental issues, Health issues with special emphasis	Theme 4	Apr-08	Mar-10	0.00	0.00	0.80	MF

Priority No.	Project Title	Theme	Start Date	End Date	TCR	ARE	ISF	Fund Name
18	on Drug addiction & HIV/AIDS by HHW/ NGOs Conducting non-formal education camps in slums by CDS/RCVs	Theme 4	Dec-09	Dec-13	0.00	0.00	1.00	MF
19	Community toilets construction with capital contribution from slum dwellers	Theme 3	Apr-09	Mar-11	5.00	0.00	0.00	UIDSSMT
20	Training & Awareness on scientific garbage cleaning to Slum dwellers and Preparation & Printing of IEC materials.	Theme 4	Apr-09	Mar-11	2.00	0.00	0.00	UIDSSMT
Sub Component Total					1232.64	0.00	1.80	

Intra-Municipal Infrastructure
Improvement Plan
(Sub-component 1.2)

Kurseong Municipality
DDP Main Book

2008 - 2009 to 2012 - 2013

Chapter 1: Development Objectives for Intra Municipal Infrastructure Improvement Plan

Kurseong Municipality covering 7.5 sq. km area with population of 40,019 (Census 2001) is distributed in 20 wards. However, this vast area coverage is not conducive for detailed planning, as it is required for the preparation of a comprehensive Development Plan. The Policy Group realized this and had suggested DTG 1 to undertake a regional planning. This would enable the technical group members to concentrate on a specific area and design detailed intensive planning for the same.

Kurseong Municipality had executed the infrastructure work in two ways. Firstly, there has been a Central Planning of different development works for primary networking system of Road, Drain and some other infrastructure. Secondly, a specific amount of fund is allotted at the ward level for execution of different ward based development work of road; drain, water supply confined mainly to the ward. The operation and maintenance are also being done at the ward level.

The DDP attempted a planning for creation of infrastructure projects and services at the ULB level in the Intra-municipal infrastructure sub-component. Most of the projects or services are either wholly located within a ward or cut-across more than one ward, but are entirely located within the ULB boundaries. Intra-municipal projects are aimed at benefiting a large number of citizens within the ULB.

Considering the condition of the infrastructure of the ULB, the following were found to aim for planning of this section.

Development objectives set for the ULB for basic municipal services at ULB-wide scale

Goal: To provide improved, hygienic, modernised infrastructural services required for hi-tech global school town on a regular basis and ensuring proper maintenance of the same through public-private partnership.

DRAINAGE	
Situation Assessment	Development objectives
➤ Most of the main drainage outfalls are either choked by house holds waste or natural wastes. This results in irregular maintenance & improper functioning of the channels thus disturbing the drainage system and making vulnerable for land slides & natural calamities	➤ To cover maximum municipal area under drainage network with special reference to areas near by schools
➤ Due to un authorized human settlement drainage from house holds directly flows to soil thus resulted in loosing of soil texture and making them prone to man-made hazards.	➤ Checking unauthorized human settlement
➤ Encroachment on hill side is a problem leading to water logging during rains	➤ To identify the waterlogged areas near the schools in the Municipality & to take necessary actions accordingly to maintain cleanliness

➤ There are some areas where water logging is a common problem. This problem has occurred gradually as there has been topographical change due to rapid urbanization.	
➤ The natural drains are highly choked up & are suffering from being inhabited squatter settlements.	
➤ The linkage between drains within wards to municipal main drains is inadequate.	➤ To ensure proper maintenance of the for quick draining of storm water
➤ Surface Drains are being choked by waste deposition.	

WATER SUPPLY

Situation Assessment	Development objectives
➤ Insufficient and irregular water supply in schools	➤ To ensure quality drinking water supply to all
➤ Clean drinking water is a problem	➤ Continuous monitoring on water quality
➤ There is no regular testing system of the quality of water of and pipes for water supply	➤ 80% of the people to have access to water from municipal sources.
➤ Leakage of water pipes and illegal tapping results in wastage of water.	
➤ Manpower is less than monitoring the water supply Network.	➤ Introduction of Water tax charges to meet the maintenance cost.
➤ Lack of awareness to save water among people.	➤ IEC materials and awareness campaign from time to time.
➤ Continuous increase in water demand due to drastic increase in population	➤ Water tankers to function in emergencies
➤ Severe water crisis during dry season of March-may	➤ Introduction of Rain Water harvesting
➤ Deteriorating water quality	➤ Service charges to be introduced for usage of Supplied Water.

SEWERAGE & SANITATION

Situation Assessment	Development objectives
➤ No sewerage system in the municipality	➤ To provide scientifically designed & pollution free modernized sewerage system adjacent to all educational places.
➤ There are existences of in sanitary latrines still in good number.	➤ To provide scientifically designed pollution free sanitary arrangements
➤ There are no soak-pits in most of the houses and the existent soak-pits are non-functional.	➤ To ensure treated waste water discharge
➤ There is no Sewerage Treatment Plant in the Municipal Area.	

➤ In-sanitary latrines are there in the public places	➤ Modernized public toilets at important public places in pay & use model through involving private parties.
➤ No sewerage treatment plant in multi-storied buildings	
STREETS, STREET LIGHTS AND TRAFFIC MANAGEMENT	
Situation Assessment	Development objectives
➤ Roads are encroached with unauthorized construction	➤ Broadening the main motor stand or construction of new accessible motor junction
➤ Due to unplanned growth, & hilly terrain proper space for construction of new roads is difficult.	➤ Taxi stand with over ground parking plaza.
➤ Absence of necessary flank or unclear flanks roads cannot get drained out naturally and thus causes water logging.	➤ To ensure proper traffic flow and facilitate transportation
➤ Due to improper level in roads, water logging on roads is very common	➤ Water logging problem to be addressed systematically
➤ Roads are excavated for various infrastructural services in an unplanned manner.	➤ Co-ordination of activities of the various line departments
➤ The Carriageways become narrower as there is no proper parking space, thus creating Traffic congestions	➤ Better maintained municipal road network
➤ The Current Standard of Road is Unable to Take the Pressure of Heavy Vehicle and Highly intensive traffic movement.	➤ Improvement and strengthening of existing pavements
➤ Heavily damaged road stretch due to natural calamities like cloud burst and land slides	➤ Regular maintenance and restoration work.
➤ Poor lighting condition of roads, which hinders smooth movement of pedestrian as well as vehicles	➤ To ensure proper lighting in all roads & near important Municipal properties
➤ Inadequacy of pedestrian way i.e. footpath is also one of the causes of congestion on road.	➤ Sign posts , road indicators, caution signs to be installed through public private venture
➤ Illumination of the existing system is not up to the required satisfaction and maintenance rate is high.	➤ Introduction of energy saving measure, all approachable roads heading to schools to be illuminated. Private parties to invest or to adopt road stretches
➤ Due to non-existence of pole and street phase service cannot be provided in different areas specially slum areas need more attention.	

➤ Lack of Street lights at important places	➤ More street lights needed in important places.
SOLID WASTE COLLECTION	
Situation Assessment	Development objectives
➤ No fixed dumping ground for waste disposal	➤ Scientific Dumping grounds to be created
	➤ To ensure scientific solid waste disposal system and making land available for the same
➤ Some illegal markets and the non-covered areas are still dependent on Vat system, thus creating nuisance to the health and environment.	➤ Door to door garbage collection daily ➤ Team of solid waste management to be formed ➤ New disposal site to be earmarked to meet up the future requirement
➤ Unhygienic Disposal system as there is no Leached Treatment unit	➤ Existing land fill site needs proper maintenance & pollution is to be controlled
➤ No recycling and treatment plan.	➤ Solid waste recycling plant to be created ➤ Safe disposal of medical wastes
OTHER MUNICIPAL INFRASTRUCTURE	
Situation Assessment	Development objectives
➤ Inadequate attention towards crematorium and Burning Ghat maintenance	➤ Modernization of existing crematorium & burial ground
➤ No infrastructure for recreation and entertainment	➤ To set up a hi-tech entertainment hub for tourist attraction involving Private players
➤ No provision for sporting activities	➤ Setting up of a sports committee with experts to promote sports
➤ Inadequate infrastructure with regard to community hall, auditorium, sports culture, amusement park etc.	➤ Development of socio-Economic, recreational, commercial, administrative, sports & cultural Infrastructure at par with the requirement of a hill town (UDPFI Guideline)
➤ Hi-tech global school town	➤ To set up Internet kiosks and modern Libraries through out the municipal areas in support of global hi- tech school town. ➤ Through public –private partner ship
➤ No sports complex	➤ A state of art sporting complex cum stadium is to be constructed to support the global school town infrastructure.
➤ Inadequate socio cultural infrastructure in the municipal area	➤ Adequate Maintenance of Existing and Proposed Infrastructural Assets

➤ No amusement park for tourist attraction	➤ Setting up of an amusement park to promote tourism involving adventure sports. ➤ Maintenance of Different Markets ➤ Constructing new markets
➤ Inadequate number of ward offices and sub-centers. In some cases, there exists none	➤ All ward to have offices ➤ Construction of Health Sub Centers
➤ With regard to municipal markets and other properties there is problem of management	
➤ Modernizing Municipal Function	➤ Up gradation of municipal function by making it computerized.

Chapter 2 : Intra-municipal infrastructure – Situation assessment

Infrastructure over view:

1. Water supply

The drinking water supply to the Town is getting adversely affected on account of drying up of Catchment sources situated more than 12 K.M. away from Kurseong due to deforestation. It is our belief that with the aforestation of Catchment sources the daily demand of the people can be fulfilled and the old decaying & leaking pipes of different sizes laid during British Regime have to be replaced with new ones and further modernize the distribution system. The daily demand of the potable water is about 8,40,000 gallons (20 gallons per head per day) but in the lean driest period from March to June the people are getting only 2,89,700 gallons per day, a horrifying shortage of about 5,50,250 gallons and the water is supplied in alternative days only. Hence, we need immediate restoration of Catchment sources with Forest areas, replacement of decaying supply pipes with new ones, laying new water supply lines with modern technology, construction of new water reservoirs at different places & implementation of water harvesting system for providing proper civic amenities to the people of Kurseong & adjoining areas. Kurseong has the unique system of management of water supply. The storage and augmentation of water is the responsibility of the P.H.E. Department which is under the control of D.G.H.C., the entire distribution system is managed by the Municipality. Due to the age old reservoirs and faulty distribution system the Municipality is facing acute problems in supply of water to the tax payers. During the dry seasons, at times, distribution of water has to be made to the public through tankers and trucks. It is necessary to re-vamp the existing water reservoirs and water distribution systems in order to provide efficient service to the public.

Objectives:

The main objectives of this paper are

- i. To highlight the problems in providing potable drinking water to the residents of Kurseong town and neighboring rural areas.
- ii. To work out and suggest measures to ameliorate such problems to the possible extent with approximate cost appreciation to implanting such measures.

The present position of providing potable water to the residents of Kurseong town:

Kurseong town has quite a number of perennial and semi perennial sources of water in the form of hilly streams and Nullahs. Out of such sources of water from the following streams which are also known as Nullahs and kholas are impounded with small setting tanks and reservoirs for storage of water for supply to Kurseong town. Such impounded water are conveyed to the main storage tanks located at convenient places for equitable distribution to the residents of various wards under this Municipality with network of 2" approximate diameters of connection pipes.

Sources of water for feeding Central Water Reservoir

Sl. No.	Sources of Perennial Khora and Jhoras	Location	Feeding Reservoirs
1	DareyKhola	Near Bagora	Central Water Reservoir at Durpin (Dowhill Forest Area)
2	Baluwakhani Khola (8th Mile)	Near Sonada	Eagles Craig Central Reservoir
3	Aringalay Khola	Near Dilaram	St. Helens Central Reservoir
4	Sepoydhura Khola	Near Sepoydhura	St. Helens Central Reservoir
5	Whistle Khola	Near St. Mary Hills	Circular Reservoir near Church(St. Helen Area)
6	Babu Khola	Near Gundrukay Busty	C.W.R. at Durpin(Dow Hill Forest area)
7	Pahwa Khola	Near Deorali Busty	C.W.R. at Victoria
8	Chittray Khola	Near Chittray Busty	C.W.R. at Victoria (Dowhill Forest)
9	Amaa Khola	Near Khundrukey Busty	C.W.R. at Durpin
10	Thotay Khola	Near Tung	Eagles Craig Central Reservoir

Storage Facilities and Capabilities of the Storage Tanks

The following are the Primary Storage Tanks for the potable water from where distribution is made to the Secondary Storage Tanks located at cardinal spots for distribution to the consumers:-

Storage Facilities and capacities of the Storage Tanks

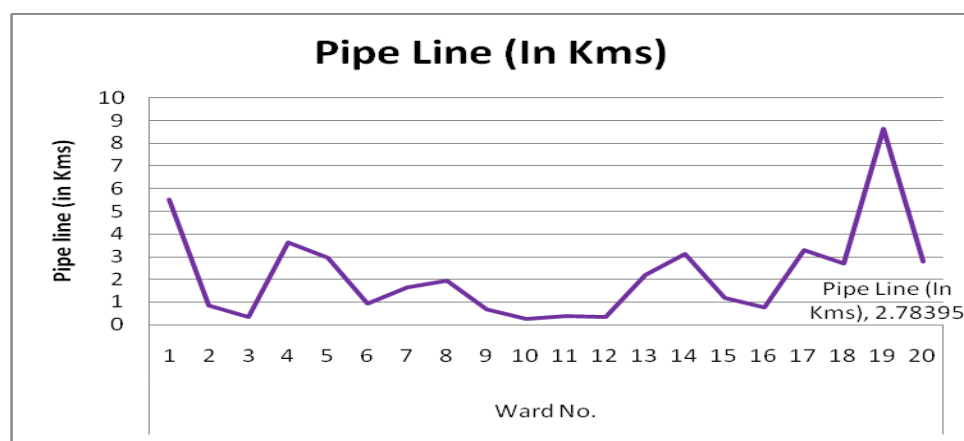
The following are the Primary Storage Tanks for the potable water from where distributions is made to the secondary storage tanks located at cardinal spots for distribution to the consumer:-

Sl. No.	Location	Capacity	Type
(i)	R.C. Storage Tank at Dow Hill Forest Area (Durpin) This is always kept in reserve for maintaining supply during emergencies.	45,00,000 Gallon	Rectangular
(ii)	Central Water Reservoir near Victoria School (with Filter and Chlorination Devices).	R.C.C. Tank 45,000 Gallon 20,000 Gallon	Circular Rectangular (RCC)
(iii)	Central Water Reservoir (with Filter and Chlorination Devices) Near St. Helen's Convent.	R.C.C. Tank 88,000 Gallon 20,000 Gallon	Rectangular Circular (RCC)
(iv)	Central Water Reservoir (with Filter and Chlorination Devices) At Eagles Craig.	R.C.C. Circular 45,000 Gallon 50,000 Gallon	Circular Circular (RCC)
(v)	Central Reservoir near Municipality Office for tapping unfiltered water, water from various springs Raw Water for use in washing, lavindering Toilets and fire hydrants.	R.C.C. Tank 20,000 Gallon 20,000 Gallon 20,000 Gallon	Rectangular Rectangular Rectangular (RCC)
(vi)	Central Water Reservoir at Dowhill near Post Office (without filter and Chlorination devices).	R.C.C. Tank 10,000 Gallon	Rectangular (RCC).

Availability and distribution of Water:

As Kurseong has the natural sloped areas the gravity flow system has been adopted for channeling and distribution of water to different places. Kurseong Municipality has no tube wells nor any pumping stations and all the water is directed to the primary reservoirs through different sizes of G.I. Pipe Lines from their respective natural springs sources located in the dense forest areas for distances from 2 to 20 K.M. from Kurseong after preliminary sedimentation of filtration. The day to day requirement of potable water per day/per head is about 20 gallons to be comfortable. This can be made available to the public during the rainy, autumn and winter seasons. But the water scarcity is strongly felt during the three summer months as detailed below:-

a.	Total storage facility during the summer months	3,05,000 Gal./Per Day
	Less 5% due to water (loss)	(-) 15,250 Gal. /Per Day
	Net available	2,89,750 Gal./Per Day
b.	Present Population of Kurseong Town	40,172 Nos
	Add Floating Population Per Day	(+) 2,000 Nos.
	Total	42,172 Nos.
c.	Average Water supply per day	2,89,750 Gal.
	Population served	42,000
	For one unit of population	6.90 Gallons per day per head
d.	Present demand per day	8,40,000 Gallons (42,000 population @20Gal./per head/ per day)
e.	Actual supply available Per day during the dry Season.	2,89,750 Gallons
f.	Shortfall during dry Period	5,50,250 Gallons



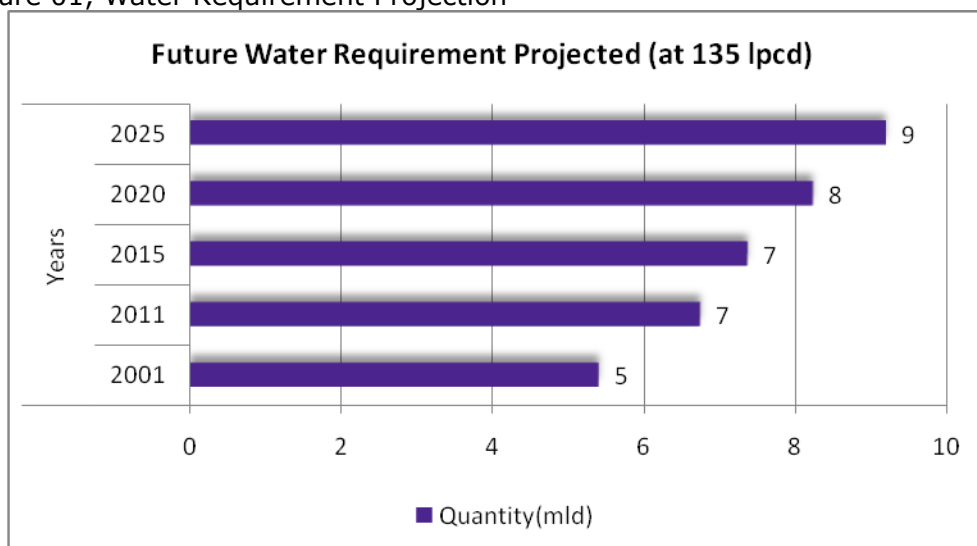
Water requirement projection

The water supply requirement for 2025 of Kurseong Municipality has also been estimated assuming the quantity of water required as 135 liters per capita per day, as per UDPFI Guideline and considering the increasing demand for water in the Municipal area.

Aspect	Size of town		
	Small (<50,000)	Medium (>50,000)	Large & Metro (>10 Lakh)
Domestic Absolute Min.	70 lpcd	70-100 lpcd	135 lpcd, it can be reduced up to 70 lpcd
Domestic Desirable	100 lpcd	135-150 lpcd	150-200 lpcd

(Source: UDPFI Guideline)

Figure 01, Water Requirement Projection



The existing capacities of all the above reservoirs are inadequate to cater to the present demand due to increase in population in the command areas and the supply is done in alternative days in most of the areas, especially during the dry season. In view of this scarcity, water is brought from the jhoras in trucks, jeeps, water tankers for supplies to

house holds, hotels, restaurants, commercial establishments and other during water scarcity months. Some of the new commercial complexes & Dormitory and Housing complexes are under construction in the area of Kurseong Municipality, which will also require adequate supply of potable water. It is therefore imperative and necessary to augment the numbers of water reservoirs where required remodeling and realigning the water supply pipe lines in the Town area & also those pipe lines from catchment areas to central water reservoir which were constructed during pre-independence days and replace the old and ineffective ones with new ones if adequate supply of water is to be maintained. The Kurseong Town has no provisions of specified water reservoirs for fire fighting or any fire fighting devices in order to remain prepared against similar situations which devastated the Kurseong Town during the fire havoc in the year 1986.

Water Supply Projects:

The water supply project in Kurseong Municipality needs urgent improvement. The age-old distribution system of water supply needs to be revamped. In addition improvement of the catchment areas, existing water reservoirs and addition of water reservoirs in some places are urgently required in order to maintain the water supply to Kurseong town. For this a master project was prepared by the Municipality and submitted to the Hon'ble Minister in Charge, Municipal Affairs Department and related Deptt. several times. But no fund has been sanctioned for this purpose till date. The Supply of water from the sources situated within the forest areas up to the Central Reservoirs located within the Kurseong Town is being maintained by the P.H.E. Deptt. and from these Central Reservoirs Water is being distributed to the public by Kurseong Municipality. The main feeder conduit pipes from the source to the Reservoir are in dilapidated conditions, which were laid nearly 30 years ago. But due to financial crunch the P.H.E. Deptt. has not been able to maintain these main conduits, which is causing profuse leakage of water in the way, resulting in inadequate supply of water to the reservoirs. Moreover the condition of the distribution system within the town area is not good which need replacement and renovation.

FUTURE PLAN

The future plans have to be taken up immediately to cope with the situation and to eliminate the crisis of water supply to fulfill the individual demand, we have prepared few schemes to augment supply of potable water required for the people of Kurseong Municipality area from the present supply of 6.90 Gallons per head per day to 20 Gallons per head per day even during the months of dry seasons taking into consideration the likely anticipated population of Kurseong by 2011 A.D. At present the rain water conservation technique are being followed in hilly terrain adopting by different methods during rainy season:

- Water harvesting method on roof top.
- Ground Trench preservation method.

Table IMF-1: Asset inventory and condition assessment of key municipal services

Asset category	Quantity / Capacity	Year of construction / commissioning	Physical condition / state of repairs
WATER SUPPLY			
Service reservoir	Capacity	Year of Construction	Structural condition
R.C. Storage Tank at Dow Hill Forest Area (Durpin)	45,00,000 Gallon		
Central Water Reservoir (with Filter and Chlorination Devices).	5 Nos. with total storage facility during the summer months 3,05,000 Gal./Per Day		
No. of spot sources (Natural Catchment source)	27 Nos.		
Pumping capacity	No of Pumps:- Nos.		
	Stand by if any:- No		
	Condition: actual vs. rated capacity		
	Out of Order last ten yrs.		
Distribution network	Length according diameter and material	Year of laying	Present condition: encrustation if an
			Condition of joints and leakage
Stand posts	Nil	Year of commissioning	Condition
Hand pumps	Nil	Year of commissioning	Condition
a) Shallow tube well b) Deep tube well			Good

Asset category	Quantity / Capacity	Year of construction / commissioning	Physical condition / state of repairs
STORM AND SULLAGE WATER DRAINS			
Collection network	Length according to size and type of drains.	Year of construction	Conditions: built, covered/uncovered

2. Sanitation and Sewerage

A partial Sewerage System has been developed for Kurseong town in 1918 for servicing 10 public community latrines and a few houses in Bazaar area more than 736 Nos. of low cost sanitary latrines were constructed to eliminate the removal of night soil by head load an old and obnoxious practice. A central septic tank has been constructed with the technical assistance of Municipal Engineering Directorate at a cost of Rs. 12 crores. The Central Septic Tank has been commissioned at present but only a few wards of Kurseong town has covered this central septic tank besides that the night soil from almost all the houses are going into the open Jhoras which is causing health hazards. The present board of Councillors has prepared a detailed plan and estimate for construction of three more central septic tanks and covering the entire Kurseong town with sewerage line. The plans and estimates have already been submitted to Govt. of India through State Govt. Further keeping with the policy of State Govt. for inclusion of sewerage system the survey work of Kurseong Municipality has been completed and the scheme has been submitted to Municipal Affairs Deptt. through Municipal Engineering Directorate. It is hoped that the fund will be sanctioned in 2007-08 so that the whole town will be covered by the scientific method of Liquid Waste Management.

Present Status of Household latrine

	Household	Type	Percentage covered
	3200 Nos	Septic Latrine (Pucca)	40%
	4800	Night Soil type (Kutchha)	60%
Total	8000		100%

(Source: As per ILCS Survey)

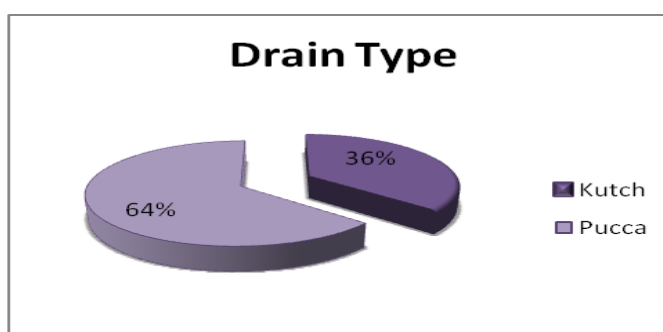
Asset category	Quantity / Capacity	Year of construction / commissioning	Physical condition / state of repairs
SEWERAGE NETWORK (IF AVAILABLE)			
Collection network	Length according to diameter and material	Year of laying	Present condition
Nil			
Pumping stations	No. & capacity	When constructed	Present condition of structure and pumps
Nil			
Treatment Plant	Rated vs. actual capacity	Year of construction	Type of treatment
Nil			Structural and other conditions
Collection network	Collection equipment for septic tanks, drains	71.78 kms	Natural: trained / untrained
Hydraulic truck 407 D &	2 Nos.	Year of Commissioning	Conditions: Capacity vs. Requirement. Condition :

Asset category	Quantity / Capacity	Year of construction / commissioning	Physical condition / state of repairs
207 D		20.03.2007	

3. Drainage

The open drains catering the Municipality are 57.28 km in total length and are mainly of two types- Kutcha (20.77 km) and Pucca (36.50 km). Most of the Pucca drains were constructed in last 10 years. These drains, being uncovered, need to be cleaned at regular intervals by trained labourers. Loading and carriage of these wastes are done manually / by vehicular support.

Figure 02, Drainage System in ULB (As per Socio Economic Survey 2007)



Asset category	Quantity / Capacity	Year of construction / commissioning	Physical condition / state of repairs
STORM AND SULLAGE WATER DRAINS			
Collection network	Length according to size and type of drains.	Year of construction	Conditions: built, covered/uncovered
Pucca	36.50576		
Kutcha	20.77605		

4. Solid Waste Management

The Municipalities within the region are facing huge problems regarding their various Infrastructural services. In the last century up to 70's the amount of solid wastes

generated in this Municipal area were simply thrown in the nearby places. The type of these wastes are mainly Organic i.e. easily degradable.

However, gradually with the increase in population, the quantity of generated wastes increased at an alarming rate. With it came the non- biodegradable materials like plastics since 1980. To keep the environment clean, vats at different locations, dustbins, handcarts etc. came into existence. People objected this system of vats as those created environmental nuisance in case of irregular clearance. Municipality is planning to collect waste from doorsteps and directly dumped in the landfill site. There is huge need for a proper dumping ground.

Asset Category	Quantity/ Capacity			Year of Construction/ Commissioning	Physical Condition/ State of Repairs
Solid Waste Management					
Collection vehicles, bins/ containers	Type	Capacity	No.	Year of Commissioning	State of Repairs
Conservancy Tractor with Trailor	Ford	1 MT	2	1960	One Working One in Poor Condition
Conservancy Truck	Tata	2 MT	1	1990	Good Condition
Jeep Trailer	Tata	0.5 MT	1	2004	Good Condition
Dustbins	Cement	8 Tons	74	-	Good Condition
Central Septic Tank	Cement ed		1	-	Good Condition
Public Latrines	Septic	200 Seats	18	-	Good Condition
Community latrines	Septic		32	-	Good Condition
Composting plant, if any	Rated vs. actual capacity			Year of Commissioning	State of Repairs
Land fill site	Location	Size		No. of years in use	
Dumping ground	Near Polytechnic College	1 No.		24 years	Leased

Solid Waste Generation

The type of waste generated within the municipal areas can be largely classified as

(i) MSW (Municipal Solid Wastes):- These include Organic & Inorganic Wastes, to be handled by the Municipality.

(ii) Biomedical Wastes- These are wastes from Nursing Homes etc. Agency authorized West Bengal Pollution Control Board, may be appointed to handle these wastes

(iii) Industrial Wastes - No significant industrial waste is generated.

(iv) Construction and Demolition Wastes - These have not created any problem till now and they are mainly used for filling up of low-lying areas.

Collection & Transportation system: Presently waste is disposed off in the community vats nearby. From there it was collected by cycle vans, then trailers and finally was taken to Dumping Ground by these Trailers.

In the Municipal Area, at present, the collection is generally done by 2 methods:-

- Waste collection from vats by the Municipality
- Collection from Drain sludge / jungle by Municipal own measures.

The collected wastes in both the cases are directly transported to the disposal ground.

But the door to door collection system and segregation of wastes at the source is yet to be established fully. The door-to-door system of waste collection exists partially.

Disposal System and Treatment: No treatment of waste is been attempted as yet. With the increase in generation of waste the area of the site is inadequate. The municipality is contemplating to buy land preferably outside the municipal area as there is no land available within its limits.

The main problem that has been faced by the people of Kurseong is the disposal of solid wastes. Municipality does not have proper disposal site with latest technology. The daily volume of solid wastes is about 6 M.T. but these wastages is directly disposed of into Jhoras (Big Nullaha) without any grading & treatment causing blockage of Jhoras during rainy season and damaging the tea bushes & houses of B.P.L. families due to heavy flow of water in the Jhora. At present the Municipality has about 65 nos. of Conservancy Staff who look after both the liquid waste system & manage to dispose of the solid waste and only two nos. of Tractors to lift this garbage by head load which is not feasible to manage to keep the town clean due to difficult topography of Kurseong. Hence, the problem can be solved if proper site for disposal of solid waste with latest technology are developed in near future.

The new Board of Councillors has awoken to the necessity of having solid waste management and identified fallow land at Spring side Tea Garden. The land is about 3 kilometers from the main town and far from the populated area. The Municipality has prepared a project for solid waste management in this land. The garbage collected from the houses will be transported in trucks to the above site and separated into bio degradable and non degradable items. After segregation the items will be treated so that compost prepared from the items could be used as fertilizer. The tea gardens of the neighboring areas have shown keen interest in purchasing the compost so prepared for use in the tea garden.

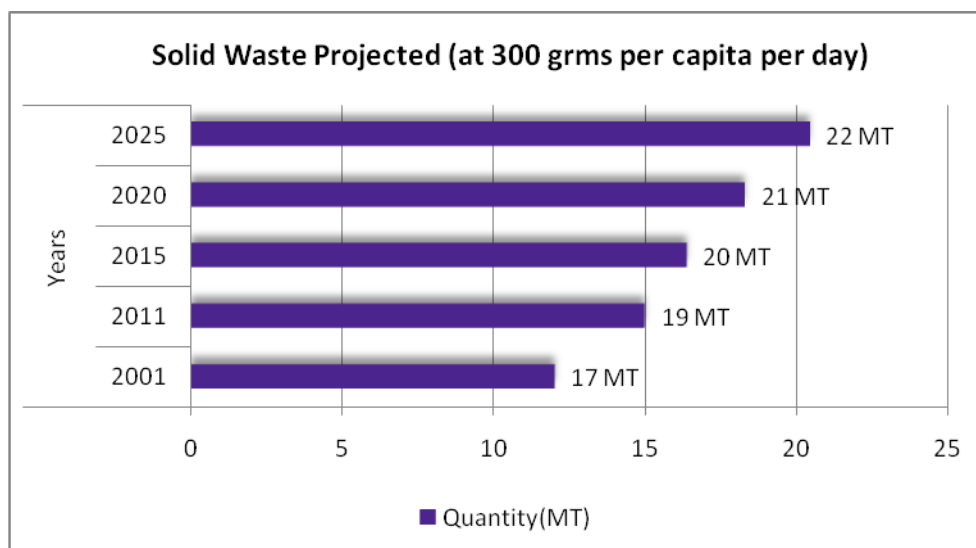
In Kurseong Municipality, the quantity of solid waste generated per capita per day was 75 grams. The quantity of solid waste generated per day was 6 Metric Tons.

As per UDPFI Guidelines, the generation of waste varies from about a quarter of kilogram in small towns to about half a kilogram per capita in large and metro cities.

Solid Waste Generation projection

The waste projection for 2025 of Kurseong Municipality has also been estimated assuming the quantity of generation as 300 gms per capita per day, as per UDPFI Guideline and considering the strong potential for growth of the Municipal area.

Figure 03, Solid Waste Generation Projection

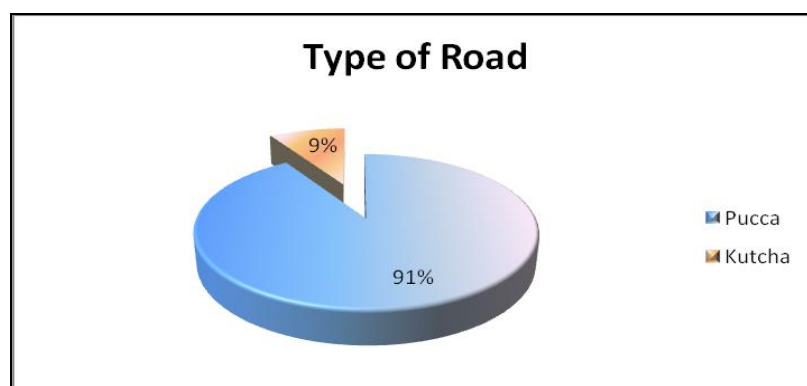


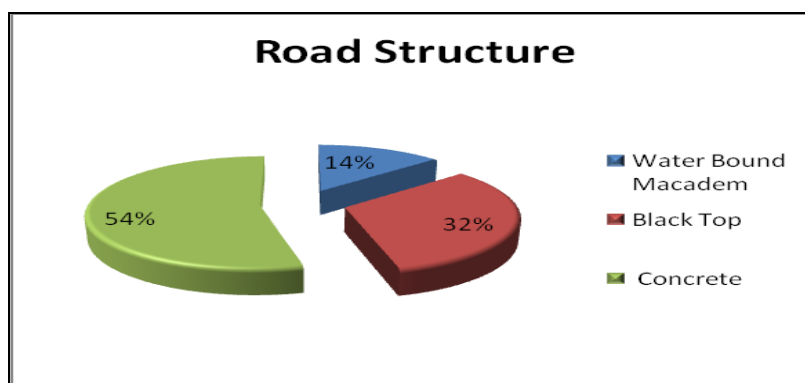
5. STREETS, STREET LIGHTS AND TRAFFIC MANAGEMENT

Streets:

The Kurseong Municipal Area has approximately 5% roads, which is much less than any Medium Sized Town. With the rapid growth of Urbanization of the city of Siliguri and Darjeeling, the population of the Municipal Area is increasing day-by-day. In coming future, the percentage of present roads will not be able to cope up with this population pressure.

Figure 04, Road Structure





Roads are important to connect one place with another and depend upon its conditions & capacity of carrying load for providing better civic amenities to the public. At present we have about 82 KM length of Pucca road, 12 KM Black Top, 20 KM Concrete, 5 KM Macadam & 8 KM length of Kutcha road situated within Kurseong Municipality. The conditions of these roads are not up to the mark and need to be widened for easy flow of vehicles & should be strengthened immediately. The roads within Kurseong town are maintained by different agencies that are not within the control of this Municipality. As such the Municipality is at the mercy of these agencies regarding the maintenance of the roads.

The major city level roads in Kurseong Municipal Area are:

Hill Cart Road	P.V. Road	Dow Hill Road
M.V. Road	Hospital Road	By-Pass Road

The types of Roads existing in the Municipal area, according to their construction, are of 4 types presently:-

- Concrete
- Black top
- Water Bound Macadam
- Kutcha

Most of the roads are narrow and have little scope of widening. Kurseong Municipality still has a lot of open space. Nevertheless, the expansion is unplanned, thus leaving very little scope for any planned development of the town. With this unplanned urbanization, traffic congestion on roads especially in the station road area is a very common scenario.

The travel needs in the city are catered through Railways and Roads by a variety of modes of transport in the form of trains, buses run by Private operators, trackers and private vehicles such as cars and 2-wheelers. Improving socio-economic status, easy availability of vehicles, increase in population and lack of good public transport is resulting in steep growth of vehicles in the Municipal Area.

Due to this easy accessibility, the traffic demand of this area is increasing at a fast rate. In order to face this heavy demand the capacities of the major arterials roads have to be increased to ensure easy flow of traffic.

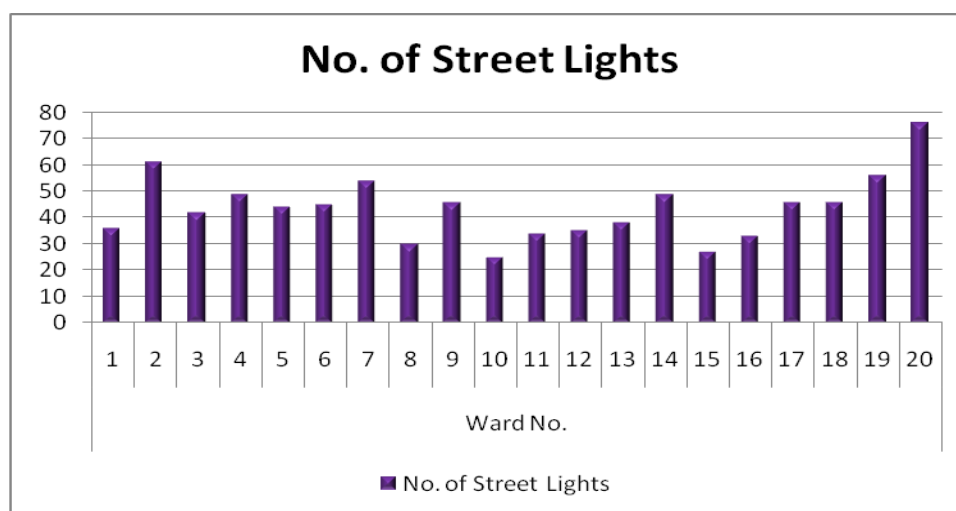
The commercialization led to an increase in parking demand along these roads, which in turn reduced the effective carriageway. Parking is a major and an emergent issue in Kurseong Municipal Area. The tendency in the Area is of commercialization along the main roads. Initially, the plots along these roads were residential in nature but with increasing land value and traffic on these roads, they were commercialized.

On-street Parking is a very common phenomenon and is highly responsible for the decrease in the width of the Carriageway. Private vehicles do not have their terminal parking area off the thoroughfare; as a result, those are parked on the roadside. In populated public places, such parking develops acute to congestions during rush hours.

Street Lights:

Municipality mainly looks after the operation and maintenance of street lighting within the municipal area. At present, 2/3 days time is taken to replace the streetlight. However, the quality of service and illumination is not up to the satisfaction of the people. Due to non-availability of street phase, this service cannot be provided to too many areas.

Figure 05, Street Lights



During the year under report the total No. of Street Lights as per schedule was 872 within Municipal Area. With an average 50% lights remaining un-burnt throughout the year and continuous non-burning of street lights particularly in slum areas, there is much leeway to be made up before a satisfactory level of maintenance of street lights can be achieved. Besides, the scheme for providing additional street lights which was conceived a couple of years ago has not so far been translated into reality, limited resources coupled with a perennial fund constraint just precludes the possibility of undertaking the schemes of additional street lights, though it is a long felt necessity. With an improved fund position it and when sanctioned by the Govt. in future, the Municipality has put this scheme on a priority list.

To identify the major issues relating to Streets, streetlights and traffic management system, a stock of existing asset inventories was taken and compiled as per the following:

Asset category	Quantity / Capacity	Year of construction / commissioning	Physical condition / state of repairs
STEETS, STREET LIGHTS AND TRAFFIC MANAGEMENT			
Street network	Length according to width and material of construction	Year of last complete resurface, repair	Extent of potholes and general riding quality
Pucca Road=82 KM Kutcha Road=8 KM	Black top=12 KM Concrete=20 KM Macadam=5 KM		Roads are not up to the mark and need to be widened for easy flow of vehicles
Street Lights	No. of poles 872		Percent of working lights
Pavements	Length	No pavements	Condition, encroachments
Traffic intersections	No. of main junctions		Traffic issues at the junction

6. Other Municipal Infrastructures

Office Infrastructure:

The Kurseong Municipality has in its jurisdiction one Head office for the execution of its Municipal duties and liabilities through a decentralized planning system. All these buildings need to be renovated, repaired and maintained. Municipality does not have its ward office.

Health Infrastructures:

The Physical asset of Health infrastructure of Kurseong Municipal Area includes 4 health sub centers running in rent. Construction of Health Sub Centers is needed. The other details regarding health are discussed in Component-2.

Greeneries:

In Other Municipal Services greeneries, i.e. Parks and playgrounds play a very significant role in enhancing the quality of urban environment. In Kurseong Municipal Area, the Municipality mainly maintains these. These greeneries need to be demarcated and maintained to keep the ecological balance and a healthy atmosphere. These are discussed in detail in the Land-Use Planning

Burning Ghats:

Municipality has two crematoria. There is no burial ground on municipal owned land. There are a couple of burial grounds on land owned and maintained by religious societies / trusts. Improvement of the existing burning ghats and burial ground is necessary to meet up the future demand.

Guest House

Kurseong Municipality has a Guest House which needs up gradation and renovation. Besides this, the Municipal area needs some local community centers. For any urban

area, socio cultural and sports activities are also needed for a healthy environment. There is also a need for a stadium and an Indoor stadium.

Markets:

There are two existing markets in Kurseong Municipal Area. All these existing markets are more than 20-25 years old and are ill maintained. With time, these markets need some additions / extensions also. These markets need to be relocated and rehabilitated.

Slaughter House:

There is one Slaughter house in the Kurseong Municipal Area.

To arrive at the issues related to this field first a stock of asset inventories available with the municipality is compiled as below:

Asset category	Quantity Capacity	Year construction commissioning	of /	Physical condition / state of repairs
OTHER MUNICIPAL SERVICES				
Crematoria	No. / capacity	Year construction major repair	of / last	Current conditions
Crematoria	2			
Fire station				
Slaughter House	1			
Other				

Details of On-going Schemes and Projects: Details of projects that are currently under construction, projects for which funds have been allocated

Table IMF-2: Listing of ongoing Intra-Municipal Infrastructure projects in the ULB

Sl. No.	Project Name Location	Appx. Project cost	Implementing Agency	Fund	Status
1.	Construction of Public path near and below public latrine Sittlu Busty wd. No 8	59980.00	ULB	(B.M.S)	
2.	Construction of damaged public path near Sunita's house at wd.no 7	34960.00	ULB	SJSRY (U.W.E.P)	
3.	Emergent repair of Road Bench in front of Dr. Kiran Sharma's house of Sudha-pa- Tol and construction of dustbin near Parvatin Bridge under Kurseong Municipality.	12,500.00	ULB	SJSRY (U.W.E.P)	
4.	Construction of Path & Railing near Ashoke Chettri's house and drain cover slab near Gyanukur School in Ward No.XVII.	35,000.00	ULB	SJSRY (U.W.E.P)	
5.	Construction of Path & Railing near N.K. Thapa & N.K. Nirula's house and drain near Rajen Thapa's house in Ward No.V	35,000.00	ULB	SJSRY (U.W.E.P)	
6.	Construction of Footpath at Hasssibul Dhara , Dustbin at Fatak Dara , Bathroom at Sim Dhara and protection Wall near the house of Rabgy Bhutia at Chandbari in Ward No. XX.	59,990.00	ULB	SJSRY (U.W.E.P)	
7.	Construction of Footpath drain & Railing at samir path near Acharya Club in Ward No. XVII.	59,990.00	ULB	SJSRY (U.W.E.P)	
8.	Improvement of link Road near Suren Poddar house and drain near Manik Pradhan's house at Ward No. XI under K/M.	35,000.00	ULB	SJSRY (U.W.E.P)	
9.	Improvement and renovation of link Road near Anit Restaurant and near Sabir Ahmed house at Ward No. XI under Kurseong Municipality.	60,000.00	ULB	SJSRY (U.W.E.P)	

Ongoing Projects - Drainage

Sl. No.	Project Name Location	Appx. Project cost	Implementing Agency	Fund	Status
1.	Improvement of public path and drain near Raj Rajeswari hall at wd.no.8	34980.00	ULB	SJSRY (U.W.E.P)	
2.	Emergent restoration of Jhora near Rajen Pradhan's house at wd.no 10	34975.00	ULB	SJSRY (U.W.E.P)	
3.	Construction of public path and drain below Gurukul J.N.P Rd.wd.no8	49985.00	ULB	(B.M.S)	
4.	Construction of footpath and drain near Asha Mukhia's house at Hasibul Dhara and at Havaladar Khoti area in Ward No. XX under Kurseong Municipality.	35,000.00	ULB	SJSRY (U.W.E.P)	
5.	Construction of Footpath & steps below the house of Wangdi Lama ujwary Busty Ward No. XIX under Kurseong Municipality	35,000.00	ULB	SJSRY (U.W.E.P)	

Ongoing Projects – Water Supply

Sl. No.	Project Name Location	Appx. Project cost	Implementing Agency	Fund	Status
1.	Providing and laying G.I pipe for public hydrant at Deokota Tol Wd.No 9	36440.00	ULB	SJSRY (U.W.E.P)	
2.	Providing and laying 20mm diameter G.I (U.W.E.P) pipe at Buddha gram wd.no 10	50000.00	ULB	SJSRY (U.W.E.P)	

Ongoing Projects - Other Infrastructure

Sl. No.	Project Name Location	Appx. Project cost	Implementing Agency	Fund	Status
1.	Construction of protection wall below Ram Majhi's house and public path and railing below S.D.M Bunglow at Wd.No.7	60180.00	ULB	(B.M.S)	
2.	Construction of community hall at	59985.00	ULB	(B.M.S)	

Sl. No.	Project Name Location	Appx. Project cost	Implementing Agency	Fund	Status
	Sudhapa Tol wd.no.9				
3.	Providing R.C.C slab over cross drain and repairing of pot. holes at Naya busty	20060.00	ULB	SJSRY (U.W.E.P)	
4.	Construction of foot path near the house of Shri Rakesh Gurung at Subedar Busty , Ward No. VII under Kurseong Municipality	45,00.00	ULB	SJSRY (U.W.E.P)	
5.	Construction of Roadside protection wall near the house of Plara Rai in Ward No.III under Kurseong Municipality	35,000.00	ULB	SJSRY (U.W.E.P)	
6.	Construction of Railing near Arun Rai's house Shova Thapa's house and wall near Rajen Thapa's house in Ward No.V.	59,980.00	ULB	SJSRY (U.W.E.P)	
7.	Construction of protection wall near the house of Kalu Sherpa , providing public Hydrants near the house of Shri. Kakul Rai, Shri Gopal Singh and N.B. Gurung and wooden works to Community Hall(Stage Decoration) Subedar Busty Ward No XVI.	60,000.00	ULB	SJSRY (U.W.E.P)	
8.	Construction & repairing of toilet block and construction of two shops in 1 st floor in the Commercial Complex at Park Location.	2,30,000.00	ULB	SJSRY (U.W.E.P)	
9.	Improvement & renovation Tax Daroga Room, Cashier Room, Tax Collection Room, Tax Counter in Ground Floor including Chairman's Toilet Room in First Floor of Kurseong Municipality.	67,983.00	ULB	SJSRY (U.W.E.P)	

Institutional assessment: Roles of various agencies engaged in urban sector related services whose jurisdiction includes the ULB

The ULB is primarily responsible for provision of all urban services, except the WBSEDCL for provision of electricity.

Table IMF-3: Roles and mandates of various related institutions operating in the ULB

Sl. No.	Sector	Function	Role played by Agency and Department within that agency	Role of ULB so far	Key observation / Issues
1.	Water Supply	Construction of pipe lines	PHE makes water available from catchments sources up to central reservoir.	From central reservoir to other reservoirs for supply to all wards.	Lack of networking between these two exists
		Distribution management	No role	Sole responsibility to distribute water to all wards	Lack of maintenance, illegal tapping.
		Construction of Deep Tube well	N.A	N.A	
		Maintenances of Tube well	N.A	N.A	
2.	Solid Waste Management	Collection of Waste	No role played by other agencies	Sanitation department of ULB collects garbages from vats	Door to door collection is absent scientific method is lacking
		Disposal of Waste	Temporary dumping ground provided by tea estates	Wastes are being disposed to dumpng ground by sanitation dept. staffs of ULB	Scientific segregation of wastes is not done, lack of dumping space.
3.	Roads P.W.D	Construction and maintenance is being done by private contractor's o. PWD, Govt. of West Bengal. There is national Highway / District Roads passing through the municipality, PWD, Govt. of West Bengal maintain those Roads.		Municipality does Supervision, tendering and billing. No function is played by the ULB In case of municipal roads ULB maintained by way of repairing as and when required. Maintenance is subjected to approval of funds.	
4.	Electricity	Installation of substation, transformers	Role played by WBSEB	Supporting role	Proper monitoring is required.

Sl. No.	Sector	Function	Role played by Agency and Department within that agency	Role of ULB so far	Key observation / Issues
5.	Drain	ULB	No other agencies are involved	Maintains and repair the drainage network, also regular sweeping of roads done. SAE of engineering department is responsible	Drains or Kholas are choked because of lack of sewerage network.
6.	Sewerage	nil	No role	New connection, maintainance by conservancy & sanitation dept.	Master plan on sewerage worth 12 crores sanctioned.
7.	Crematorium	Only one wood based crematorium to cremate dead bodies.	Controlled by Municipal office.	To maintain, planning and upgradation. Also supply wood.	Needs to be modernised and beautified to give the citizens an additional green space.

Summary of Public Consultation: Summary of citizens feedback, key priority issues, projects proposed, role of citizens who are willing to play in O & M, willingness to pay for services

Consultation with ward committees. Citizen participation is a key to the planning process. Citizen's views on quality of services were sought as an important feedback to the municipal management. Citizen's expectations and prioritisation of issues detailed below. Ward Committee is the primary instrument of citizen participation in this planning process. Therefore, it was ideal to capture views of the ward committee on status of services received by them.

Consultation with other citizen groups. On specific infrastructure issues, concerned citizen groups were consulted. Different types of municipal services require varying planning approaches on account of their technically unique nature.

Figure 06, Process flow for preparation of Intra-Municipal Infrastructure Plan

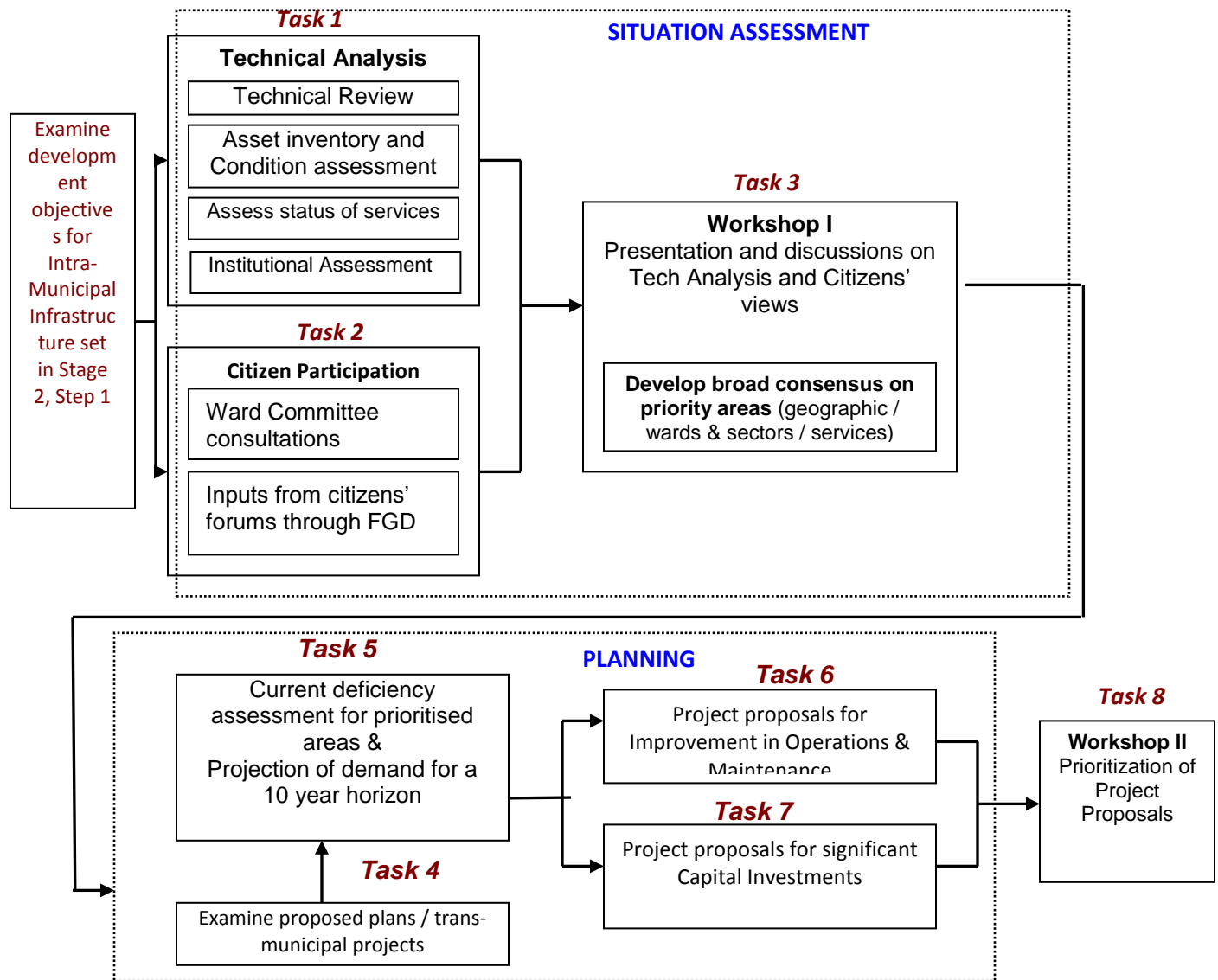


Table IMF-4: Status of services delivered – Overall Municipality wise–

Parameter / area of service delivery	Unit / Indicator	Quantification of services delivered / description	Narrative
WATER SUPPLY			
Source	Catchment Area		
Quantity Supplied	1.410 MLD		
Quality	According to source		
Coverage	Entire ULB		
SEWERAGE AND SANITATION			
Septic tanks	1		
Sewerage connections	496 sewer connections		
Location	18 public latrines having 200 seats		
DRAINS AND SULLAGE DISPOSAL			
Coverage			
	Quality of water in drains	Storm or rain water	
SOLID WASTE MANAGEMENT			
Solid waste generation	6 MT		
Collection efficiency			
Disposal		1 No.	
Compliance with MSW Rules			
STEETS, STREET LIGHTS AND TRAFFIC MANAGEMENT			
Street network	Length according to width		
Street lights		872 Nos.	
Compliance with norms of Indian Road Congress or other authority			
Signalized intersections	% of total intersections		
Parking	On-street		
	Off-Street		
OTHER MUNICIPAL SERVICES			
Markets	2		
Burning Ghat	1		
Crematorium	2		
Welfare Centres	Nil		
Slaughter house	1		
Maternity Home	Nil		
Health Sub Centre	4		

Parameter / area of service delivery	Unit / Indicator	Quantification of services delivered / Narrative description
Parks & Play grounds	2	
Ward Offices	Nil	
Libraries	2	
Fire station		
Any other service		

Attached Ward-wise summary statement of feedback and plans **Annexure 5 (in Annexure Volume-3)**

Table IMF-5: Key priority areas / Broad level consensus on Intra-municipal Infrastructure plans and priorities – Conclusions of Workshop 1

Sr. No	Priority issue	Location	Reasons for being prioritised	Remarks / suggestions to manage the issue
1.	WATER	All wards	From Ward Level feedback, Water supplied is below the standard norms & some areas are not covered by water supply system network. There is also acute problem of safe drinking water.	Integration with existing network system, augmentation of deep tube wells and hand pumps. Bib Cocks are to be provided at street taps to reduce wastage of water & new connection to be provided.
2.	ROAD	All wards	Existing condition is very poor in these areas, so renovation urgently needed. In some cases after lying of under ground sewerage system and water supply network. Renovation of that portion is also required.	All the roads need to be metalled work as per Indian Road Congress (IRC).
3.	DRAINAGE SYSTEM	All wards	From Ward Level feedback open/surface drain system are to be covered into underground sewerage system. Ward level feedback & site visits have reflected that choking/clogging of drains is acute.	Conversion of surface drain into underground sewerage system in phases. Regular cleaning of existing surface drain.
4.	STREET LIGHT	All wards	Some pockets of these Wards are not covered by street light network	W.B.S.E.D.C.L. to be informed to take necessary action.

5.	S.W.M.	All wards	There is no door to door collection system. Dustbins are not regularly cleaned.	Introduction of door-to-door collection system & properly management of the system. Procurement of essential equipments & materials for proper functioning of the SWM system.
6.	SOCIAL INFRASTRUCTURE/ OTHER MUNICIPAL SERVICES	Municipal Building, Guest house and other municipal physical assets	Condition of these structures is not good. It needs thorough repair & renovation.	<ul style="list-style-type: none"> • Repair/Renovation of Municipal Buildings and Assets. • Repair/Renovation/Extension of other social infrastructures

Chapter 3 : Project Proposals & Prioritisation

Analysis of current deficiency and projection of demand by each sector

- Water supply – Need more coverage under piped water supply immediately.
- Sanitation and sewerage – This covers very limited area and needs to be immediately planned in the ULB
- Drainage and Sullage disposal – Needs a thorough improvement
- Solid Waste Management – From transportation and dumping, a waste management system needs to be initiated. A land fill site to be identified and purchased.
- Street lighting, roads and streets - A street phase needs to be created for lighting. Efficient space management of the road needs to be initiated.
- Earmarked parking / stoppages needs to be constructed.
- Municipality does not have its ward office. This would help in reaching and interacting with the citizens
- Parks & Play grounds require regular maintenance
- Greeneries need to be demarcated and maintained to keep the ecological balance and a healthy atmosphere.
- Municipal area needs one indoor stadium and one open stadium.
- With the inclusion of new departments and services more space in all the municipal buildings are required. Special attention is to be given for training hall, conference room and so on
- A sports complex has to be planned to build.
- The markets need some additions / extensions. The unauthorized markets at needs to be relocated and rehabilitated. Reconstruction and renovation of these markets are basic requirement.

Technical review was started with the DTG 1 putting together all past technical studies, reports, past studies, surveys, GIS maps and reports related to intra-municipal infrastructure. The DTG 1 examined closely studied the UDPFI Guidelines.

Prioritisation framework for project proposals

The following prioritisation logic used for this section of the planning.

Table IMF-6: Prioritisation Matrix Template applied by the ULB

SI No.	Criteria	Score		
		3	2	1
1	Number of beneficiaries	Very large number (residents / consumers across more than half the wards in the ULB)	Large number (residents / consumers across more than one ward in the ULB)	Small number (residents / consumers within one ward of the ULB)
2	Priority for the sector / criticality of the project	Highest priority in case of basic services that makes direct impact on needs of daily life / improves health and hygiene standards (for eg. Water supply)	Medium priority to project that improve overall environment, living conditions and quality of life	Low priority to projects from non-core services
3	Conformity with other plans (environmental, land-use, master plan, trans-municipal infrastructure plans)	In complete conformity with environmental and land use plans, links into ongoing / planned trans-municipal infrastructure projects	In conformity with environmental and land use plans	Deviates from existing plans
4	Current levels of commitment to the project	Project initiated / approved both technically and administratively	Project technically approved	Technical work not commenced, not yet technically approved
5	Sustainable in terms of operational cost and capacity of agency to maintain	User charges can be levied; part of capital costs can be recovered. ULB has capacity to maintain	Cost recovery is partly possible. ULB to finance O & M from own sources. ULB has staff / can contract staff for O & M.	Project not sustainable financially on standalone basis. ULB does not have human resources to maintain.
6	Time required for project completion / commissioning	Short gestation – upto 6 months	Medium gestation – 6 months to one year	Long gestation – 1-2 years
7	Land availability and approvals	Land allocated for project, in possession free of all encumbrances. All approvals are routine. Have right of way.	Land identified, but not in possession / has some encumbrances. Approvals are routine.	Land not identified / do not have approval on right of way. Some approvals are permissions for exceptions to normal.
8	Per capita cost [total costs ÷ no. of beneficiaries], where total cost = capital cost + recurring cost over project life	Per capita cost is lowest amongst other intra-municipal projects	Per capita cost is at average levels amongst other intra-municipal projects	Per capita cost is highest amongst other intra-municipal projects
9	Rehabilitation / leveraging of existing assets and capacities	Largely rehabilitation of existing assets, links to existing capacities	Partly rehabilitation, involves partly existing capacities	Almost entirely Greenfield project

Priority No.	Project Title	No. of Beneficiaries	criticality of the project	Conformity with other plan	Current levels of commitment	Sustainability	Time required	Land available	Per capita cost	Rehabilitation	Total	Average	Final Round off
1	Preparation of a Master Plan for Sewerage.	1	2	1	1	2	1	1	1	2	12	1.33	1
2	Revamping of existing water distribution system to a state of art one with 24 hours emergency supply to schools including extension & changing of Old Pipelines in all wards covering 836333.33 metres	2	1	1	2	1	1	3	1	1	13	1.44	1
3	Engineering charges for Civil, mechanical and electrical works of different pumps and reservoirs which are in bad shape	2	2	1	1	1	1	2	1	1	12	1.33	1
4	Conversion of all unsanitary privies to sanitary privies in all 20 wards with 6no Of STP's	1	1	3	2	2	1	1	1	1	13	1.44	1
5	Construction of road covering 6666.67 metres in all 20 wards	1	2	1	1	2	3	3	2	1	16	1.78	2
6	Construction of New Guard Wall and all 20 wards covering 2012 metres.	2	2	1	1	2	2	3	2	1	16	1.78	2
7	Installation of timer for operation of street light	1	1	2	3	1	2	3	2	1	16	1.78	2
8	New street poles fitted with tube lights/ sodium vapour in all 20 wards	2	1	2	2	1	1	3	1	3	16	1.78	2
9	Setting up of Modern SWM system	2	3	2	1	1	3	2	1	1	16	1.78	2
10	Introduction of Door-To-Door waste collection system for Improvement of Social and	1	2	1	1	3	3	1	2	2	16	1.78	2

Priority No.	Project Title	No. of Beneficiaries	criticality of the project	Conformity with other plan	Current levels of commitment	Sustainability	Time required	Land available	Per capita cost	Rehabilitation	Total	Average	Final Round off
	Cultural environment Banning use of plastic carry bags.												
11	Renovation of Burning Ghat & Crematorium (Both Upper & Lower)	1	2	1	1	2	3	1	3	2	16	1.78	2
12	Provision of Ward Offices at each Ward	2	2	3	1	2	1	3	2	1	17	1.89	2
13	Maintenance of existing Market places at ward no 10	3	2	2	1	2	2	2	2	1	17	1.89	2
14	Renovation and extension of Municipal building(link with 3.1)	2	2	1	1	3	3	1	1	3	17	1.89	2
15	Construction of toilet & Privy in all wards	3	1	3	2	1	1	3	3	1	18	2.00	2
16	Improvement in operation - Removal of unauthorized temporary construction from footpath	2	2	2	2	2	2	2	3	1	18	2.00	2
17	Construction of Proposed Drain in all 20 wards	2	2	1	1	1	3	3	2	3	18	2.00	2
18	Maintenance of Existing Roads	2	2	1	2	3	3	2	1	3	19	2.11	2
19	Maintenance of Existing Drains	3	3	3	3	2	2	2	2	1	21	2.33	2
20	Maintenance of Municipal Building	3	3	2	2	3	2	3	2	2	22	2.44	2
21	Maintenance of assets under IHSDP	3	1	3	1	3	3	3	3	3	23	2.56	3
22	Renovation of Slaughter House	3	3	2	2	2	3	2	2	2	21	2.33	2

Over view of prioritized projects. An overview of all projects and how they link into one another and with the overall development objectives set by the ULB at the start of the planning process.

The following projects cuts across the various issues - Water Supply, Sewerage and sanitation, Solid Waste Management, Open Drainage system, Roads, Street lighting and other municipal functions

- Project proposals for Improvement in Operations - Attach project summary for all projects in this category as per **Annexure 7 (in Annexure Volume-3)**
- Project proposals for Improvement In Maintenance - Attach project summary for all projects in this category as per **Annexure 8— (in Annexure Volume-3)**
- Project proposals for significant capital investments - Attach project summary for all projects in this category as per **Annexure 9— (in Annexure Volume-3)**

Table IMF-7: List of Projects of Intra Municipal Infrastructure Improvement Plan

Pri orit y No.	Project Title	Theme	Star t Dat e	End Dat e	TCR	ARE	ISF	Fund Name
1	Preparation of a Master Plan for Sewerage.	Sewerage & Sanitation	Apr-09	Mar-11	1.00	0.00	0.00	UIDSSM T
2	Revamping of existing water distribution system to a state of art one with 24 hours emergency supply to schools including extension & changing of Old Pipelines in all wards covering 836333.33 metres	Water Supply	Aug-09	Mar-13	5015.00	0.00	0.00	12th 5th Year Plan (Water)
3	Engineering charges for Civil, mechanical and electrical works of different pumps and reservoirs which are in bad shape	Other Municipal Functions	Apr-09	Mar-12	3.00	0.00	0.00	12th 5th Year Plan (Water)
4	Conversion of all unsanitary privies to sanitary privies in all 20 wards with 6no Of STP's	Sewerage & Sanitation	May-09	May-11	1242.50	0.00	0.00	UIDSSM T
5	Construction of road covering 6666.67 metres in all 20 wards	Roads	Sep-08	Mar-13	50.00	0.00	0.00	SFC

Draft Development Plan: 2008-09 to 2012-13, Kurseong Municipality

Pri orit y No.	Project Title	Theme	Star t Dat e	End Dat e	TCR	ARE	ISF	Fund Name
6	Construction of New Guard Wall and all 20 wards covering 2012 metres.	Roads	Mar-08	Dec-13	65.18	0.00	0.00	SFC
7	Installation of timer for operation of street light	Street lightning	Apr-08	Mar-13	2.00	0.00	0.00	SFC
8	New street poles fitted with tube lights/ sodium vapour in all 20 wards	Street lightning	Apr-08	Mar-13	5.00	0.00	0.00	SFC
9	Setting up of Modern SWM system	Solid Waste Management	Apr-08	Mar-13	76.72	0.00	0.00	12th Finance Com
10	Introduction of Door-To-Door waste collection system for Improvement of Social and Cultural environment Banning use of plastic carry bags.	Solid Waste Management	Sep-09	Oct-10	6.00	0.00	0.00	12th Finance Com
11	Renovation of Burning Ghat & Crematorium (Both Upper & Lower)	Other Municipal Functions	Apr-09	Mar-10	8.20	0.00	0.00	EGS
12	Provision of Ward Offices at each Ward	Other Municipal Functions	Apr-09	Apr-10	10.00	0.00	0.00	KUSP
13	Maintenance of existing Market places at ward no 10	Other Municipal Functions	Mar-08	Mar-09	0.00	1.00	0.00	MF-MAINTAINANCE
14	Renovation and extension of Municipal building(link with 3.1)	Other Municipal Functions	Apr-08	Mar-13	0.00	0.00	14.48	MF
15	Construction of toilet & Privy in all wards	Other Municipal Functions	Sep-09	Mar-13	58.00	0.00	0.00	ILCS
16	Improvement in operation - Removal of unauthorized temporary construction from footpath	Other Municipal Functions	Apr-09	Mar-10	0.00	0.00	0.40	MF

Draft Development Plan: 2008-09 to 2012-13, Kurseong Municipality

Pri orit y No.	Project Title	Theme	Star t Dat e	End Dat e	TCR	ARE	ISF	Fund Name
17	Construction of Proposed Drain in all 20 wards	Open Drainage system	Nov-08	Mar-13	180.00	0.00	0.00	NCRF
18	Maintenance of Existing Roads	Roads	Nov-08	Mar-13	0.00	100.00	0.00	MF-MAINTAINANCE
19	Maintenance of Existing Drains	Open Drainage system	Nov-08	Mar-13	0.00	90.00	0.00	MF-MAINTAINANCE
20	Maintenance of Municipal Building	Other Municipal Functions	Nov-08	Mar-13	0.00	60.00	0.00	MF-MAINTAINANCE
21	Maintenance of assets under IHSDP	Other Municipal Functions	Nov-10	Mar-13	0.00	90.00	0.00	MF-MAINTAINANCE
22	Renovation of Slaughter House	Other Municipal Functions	Nov-10	Mar-13	7.00	0.00	0.00	EGS
Sub Component Total					6700.60	341.00	16.15	

LIST OF DROP PROJECTS

Sl. No.	Project Title	Project Cost	Reason for drop
1	Project plan for Construction of an Amusement Park	10.00	Fund insufficient
2	Construction of Parking for Taxi Stand cum Shopping Complex with / para transit system near Kurseong Railway Stn.	50.00	Fund insufficient
3	Construction of 4 health Sub Centres	40.00	Fund insufficient
4	Construction of Municipal Matri Sadan at ward no 14	50.00	Fund insufficient
5	Construction of Hostel for Women at ward no 14	30.00	Fund insufficient
6	Construction of pavements along with major roads-	80.00	Fund insufficient

Trans-municipal Infrastructure Linkages
(Sub-component 1.3)

Kurseong Municipality
DDP Main Book

2008-2009 to 2012-2013

Chapter 1 : Objectives for development of Trans-municipal infrastructure

Trans-municipal Infrastructure Linkages are a compilation of a set of infrastructure linkage proposals that was arrived at after discussions with multiple agencies responsible for delivering infrastructure services in the ULB or in the region. Trans-municipal infrastructure sub-component covered planning for basic services that includes:

- (a) Water supply – Surface source development, treatment works and distribution system
- (b) Sewerage – Treatment plants and network services and outfalls
- (c) Solid Waste Management – Waste disposal facilities, expensive mobile equipments
- (d) Arterial Road Network and flyovers
- (e) Any other infrastructure that can be provided as trans-municipal infrastructure for economies of scale or technical requirements

Development objectives set for the ULB for basic municipal services at ULB-wide scale

Goal: To develop improved, environment friendly, modernised, well planned trans-municipal infrastructure keeping pace with the requirement of a hi-tech global school town.

Situation Assessment	Development objectives
➤ Water Supply	➤ Improved Trans-Municipal Service Delivery at par with Vision 2025
➤ Non existence of sewerage system	
➤ Poor state of the drainage outfalls	
➤ Poor and inadequate drainage network and Water logging	
➤ Solid waste disposal	➤ Measures for having allied infrastructure for smooth traffic movement through major arterial roads of the municipality
➤ Irregular and inadequate maintenance of Road stretches	
➤ Non existence of Footpath or pedestrian bay	
➤ Unauthorized parking and terminals	
➤ Frequent land slides	➤ To set up land slide management cell with all hill ULB and other government
➤ Inadequate number of Power sub Station considering the population growth	
	➤ Better Coordination among other Govt. Departments and the ULB
➤ Inadequate trans municipal Health Infrastructure	
➤ Non existence of proper Bus terminals	
➤ There is no Treatment Plant.	

Chapter 2 : Trans-municipal infrastructure – Situation Assessment

Technical Analysis: Details of existing, on-going and proposed schemes and projects: Details of projects already commissioned, projects currently under construction, projects planned – **Attach Table 2.1 as follows: -**

Table TML-1: Existing, On-going & Proposed Trans Municipal Infrastructure Projects

SI	Project Name, type & description	Target Coverage area / Population	Name of the Agency / s	ULB' role	O & M Requirements	Target Completion Date:	Remarks
Existing							
	No existing projects						
On-going							
	No on-going projects						
Proposed							
	No proposed projects						

For each project as provided in above table, attached details of each project as per format given in **Annexure 1 in Annexure Volume-3**

Key Issues emerged and suggestions to resolve such issues received from **Workshop 1**

Since there is no District or Regional Level Plans available from the District Planning Committee hence Kurseong Municipality will undertake projects in conformity to District/Regional Level Plans in the near future whenever such plan is prepared.

Table TML-2: Major Issues in Trans Municipal Linkages Plan

Sr. No.	Institutions	Mandate/Geographic Jurisdiction	Issues	Linkages	Remarks / suggestions to manage the issue
1.	PWD	Hill cart road passing Kurseong town	Repair & Maintenance	Funds	Smooth networking Meetings
2.	PHED	Water sources tapping at panchyat areas	Storage & supply	Distribution & Mngmnt	Coordination to increase the source
3.	Development Authority	DGHC	Development & Admn	Source of fund	Regular meetings
4.	Irrigation Dept.	Kurseong sub div	No relavence after DGHC	No Direct	Role sa stake holder
5	State Electricity Board	Kurseong Sub-div	Electric supply	Maintainance & supply electricity	Awareness & Regular Intruction
6	Port Authority	nil	nil	nil	Nil
7	Railways	Land in Kurseong town uder municipal jurisdiction	Smooth traffic	Fly overs & vacant land	Proper cordination
8	Army (Cantonment Board)	nil	nil	nil	nil
9	Other ULBs	Mirik, Kalimpong, Darjeling	Projects involving disaster mngmnt & tourism	No Direct Linkage	Consultations & work shops
10	Any other Institutions – Gram Panchyats	Ambotia, Chimley, Balason	Water source and Tourism	Development of Tourist spots in Panchayat area by the municipality	Broad level consultation is required

Projected future requirement of trans-municipal infrastructure- Details of projections, data analysed, assumptions made and analysis of future requirement of assets and network of services of all sectors under Trans Municipal Infrastructure Linkages Plan.

Figure 01, Process flow for preparation of Trans-Municipal Infrastructure Plan

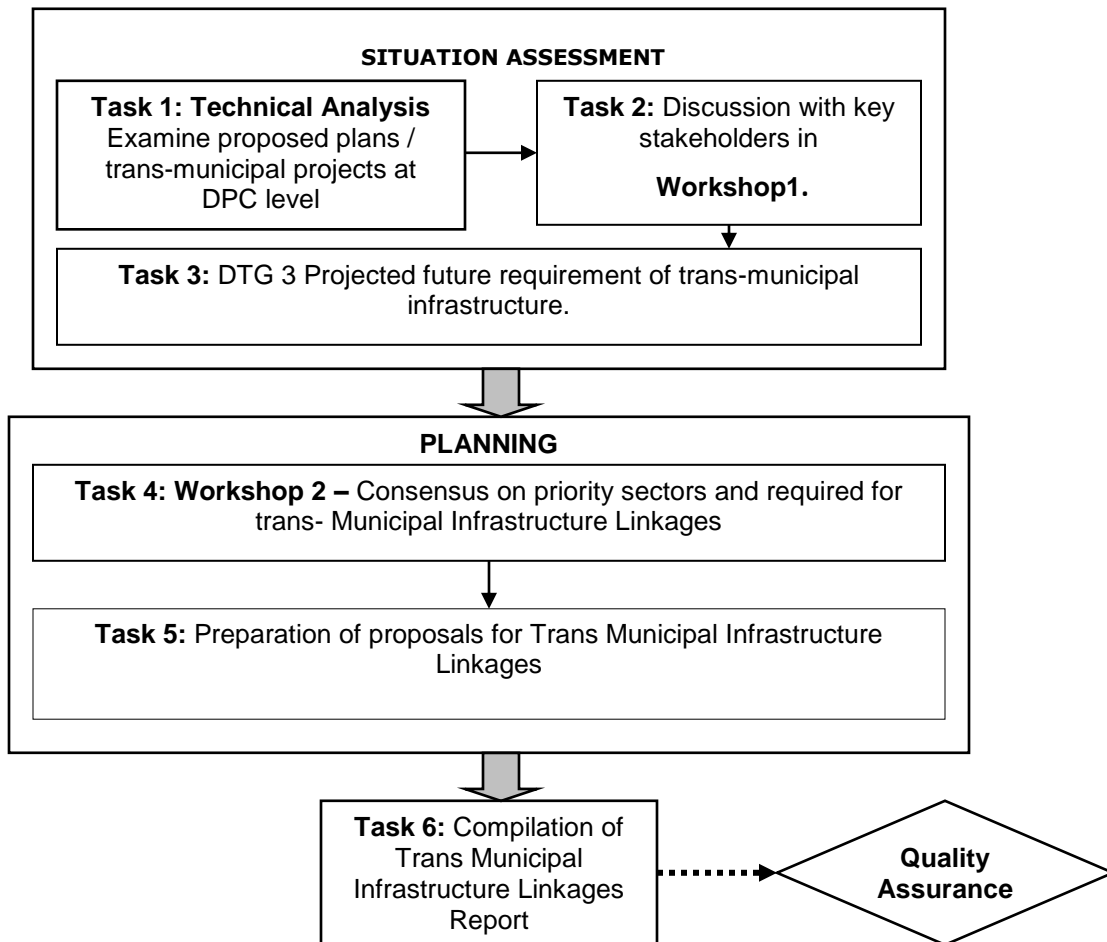


Table TML-3: PROJECTED FUTURE REQUIREMENT OF TRANS-MUNICIPAL INFRASTRUCTURE

Sector/Service	Year	Availability (in terms of assets and network of services)	Requirement (in terms of assets and network of services)
Water Supply – Surface source development, Treatment works, and distribution system	2008	No system exists	Improvement of the catchment sources
	2015		
	2020		
	2025		
Sewerage – Treatment plants and network service	2008	No system available	A new system including major collection mains and main pumping stations
	2015		
	2020		
	2025		
Drainage & Flood Control – Installation of storm water drainage system	2008	No system exists	A well designed drainage needed
	2015		
	2020		
	2025		
Solid waste disposal – Disposal facilities, disposal sites	2008	A system of collection and dumping in sanitary landfills is available	Bio-medical waste disposal and hazardous waste disposal system required and setting up a composting plant is essential
	2015		
	2020		
	2025		
Roads, flyovers, Expressways, Highways, Bypass, Over-bridge, Underpass etc	2008	No system exists	Construction of Taxi Stand
	2015		
	2020		
	2025		
Other Special Projects (Real Estate and Commercial Projects) – Construction of new townships and big retail outlets and chains	2008	Unplanned commercialization is predominant	Infrastructure for an overall social and economic development needed
	2015		
	2020		
	2025		
Any Other Project	2008		Construction of shopping malls, commercial complexes for

Sector/Service	Year	Availability (in terms of assets and network of services)	Requirement (in terms of assets and network of services)
			revenue generation and encouraging private players to make investments.
	2015		
	2020		
	2025		

Table TML-3: PROJECTED FUTURE REQUIREMENT OF TRANS-MUNICIPAL SERVICES

Sector/Service	Year	Availability (in terms of assets and network of services)	Requirement (in terms of assets and network of services)
Water Supply – Surface source development, Treatment works, and distribution system	2005	Pipeline system exists	Improvement required
	2010		A 24 x 7 piped water system
	2015		
	2020		
Sewerage – Treatment plants and network service	2005	Septic tanks or twin pit latrines	
	2010		Universal coverage of underground sewerage
	2015		
	2020		
Drainage & Flood Control – Installation of storm water drainage system	2005	Open pucca ad kuccha drains	
	2010		Cooperative drainage basin management
	2015		
	2020		
Solid waste disposal – Disposal facilities, disposal sites	2005	Collection & dumping system	
	2010		Bio-medical waste disposal and hazardous waste disposal system
	2015		
	2020		
Roads, flyovers, Expressways, Highways, Bypass, Over-bridge, Underpass etc	2005		
	2010		
	2015		

Sector/Service	Year	Availability (in terms of assets and network of services)	Requirement (in terms of assets and network of services)
	2020		
Other Special Projects (Real Estate and Commercial Projects) – Construction of new townships and big retail outlets and chains	2005	An unplanned growth	
	2010		A planned growth
	2015		
	2020		
Any Other Project	2005		
	2010		
	2015		
	2020		

Chapter 3: Project Proposals & Prioritisation

Write up on output of Workshop 2: **Integration of technical review, discussion in Workshop 1 and projected future requirement, to develop broad consensus on priorities and sectors for trans-municipal infrastructure.**

Table TML-4: Broad level consensus on Trans-municipal Infrastructure Plans and Priorities – Conclusions of Workshop 2

SL No	Sectors/Service	Priority Issue	Preferred Location	Reasons for being prioritised	Remarks / suggestions to manage the issue
	No workshops held				

Table TML-5: List of Projects

Priority No.	Project Title	Theme	Start Date	End Date	TCR	ARE	ISF	Fund Name
1	Changing age old pipelines of Catchment sources and clearing the zone in collaboration with PHE	-	Apr-08	Mar-13	25.00	0.00	0.00	WATER DEPT (GOVT OF INDIA)
2	Promotion of tourist places outside the ULB in collaboration with Panchayats and Dept of Tourism.	-	Apr-08	Mar-13	25.00	0.00	0.00	DEPT OF TOURISM
3	Improvement of Chimney Road towards forest in collaboration with PWD and Panchayats	-	Apr-08	Mar-13	20.00	0.00	0.00	DEPT OF TOURISM
4	Combatting Disaster Management with all hill Municipalities and panchayat in collaboration with National Institute of Disaster Management.	-	Apr-08	Mar-13	50.00	0.00	0.00	DISASTER MNGMNT CELL
5	Construction of cottages for tourists and promotion of Tourism at ward no 1 & 20 at Chimley ,	-	Apr-08	Mar-13	50.00	0.00	0.00	DEPT OF TOURISM
6	Workshops with related institutions within/ outside the ULB on issues regarding trans municipal linkagewith District Administration Initiative.	-	Apr-08	Mar-13	5.00	0.00	0.00	NOT DECIDED
7	Tapping of unconventional source of Energy	-	Apr-08	Mar-13	50.00	0.00	0.00	WBPDC
Sub Component Total					0.00	0.00	0.00	

Land Use Development Plan
(Sub-component 1.4)

Kurseong Municipality
DDP Main Book

2008-2009 to 2012-2013

Chapter 1: Objectives for development of Land Use and Development Plan

Land is the scarcest resource and the most important natural resource in an old municipality like Kurseong. The relevance of land use planning thus assumes all the more significance due to increasing pressure of urbanisation. The land use planning was thus to regulate the use of land to prevent misuse, overuse and its abuse. Thus land use planning was geared to meeting the consumption needs of growing population by efficient utilisation of the resource, by identifying the prospective uses of land, conservation and development of land and devising suitable regulatory control over development.

Development objectives set for the ULB for Land Use Development Plan at ULB-wide scale

Goal: To ensure better utilization of land towards protecting environment and making the municipal town a tourist friendly infrastructure supporting the broader vision of Hi-tech global school Town.

Problems	Development objectives
➤ Encroachment unauthorized settlement on open/unused lands.	➤ Development of a Planned educational city according to Standard Norms and Regulations of Land Use
	➤ Utilization of land in line with future project requirement like hi-tech taxi stand, a shopping mall, a n entertainment hub.
➤ Insanitary water courses cause nuisance and health hazards.	➤ Providing adequate regulatory measures for unauthorized street encroachment
➤ Public parks, squares and gardens are often left used.	➤ Creating a green infrastructure through out the municipality making it a- "Land of White Orchids" as the name Kurseong suggests.
➤ Unimproved Drainage network System and outfalls. Obstruction to the outfall. Inadequate linkages to the outfall.	
➤ Water logging for a long period of time causing hindrance to civic activities and cause health hazards.	
➤ Problems to social forestry. Land character changes due to unauthorized illegal excavation.	

The population density of Kurseong Municipality is 5336 persons per sq. km.. The Developed Area Average Density as per UDPFI Guideline is as follow:

Settlement Type	Persons per hectare(pph) in
	Hill Areas
Small Towns	45-75
Medium Towns	60-90
Large Cities	60-90
Metro Cities	-

(Source: UDPFI Guideline)

As there is no proposed land use map the future land use map with land use zoning and Development Control Regulations will be finalized by Kurseong Municipality through the involvement of appropriate authority for Land use development within a short period and in the interim period the Kurseong Municipality intend to take up the following actions:

- a) Obnoxious and hazardous uses would not be allowed in residential zones;
- b) All water bodies within municipality would be protected as per the prevailing orders of the State Government;
- c) Feasibility of publishing the street alignments under the provision of the West Bengal Municipal Act for widening of the existing major arterial roads would be studied; and
- d) Adequate dispersal facilities would be ensured in the areas of major traffic generations, viz., office areas, commercial areas, railway station areas, etc.

Chapter 2: Technical Analysis/Review (Situation Assessment)

Technical review has been made for understanding overall trends in land use development in the Region. An overview, municipal maps, ward boundaries, availability of land for public purposes, and civic services etc. problems in regulatory framework were considered.

As per UDPFI Guideline Proposed land use structure of urban centers in Hill areas is as follow:

Land use category	Percentage of Developed Area		
	Small	Medium	Large cities
Residential	50-55	48-52	45-50
Commercial	2-3	2-3	4-5
Industrial	3-4	4-5	5-7
Public & Semi Public	8-10	8-10	12-15
Recreational	15-18	15-18	16-20
Transport & Communication	5-6	5-6	6-8
Ecological	8-10	8-10	8-10

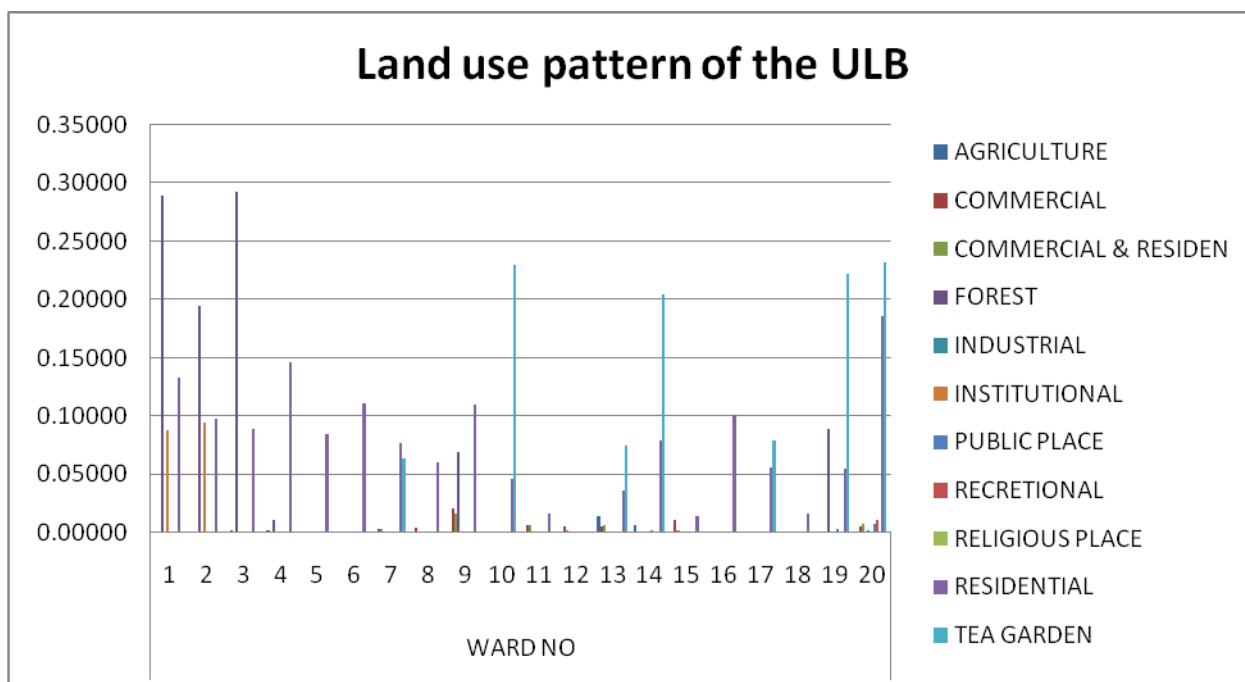
(Source: UDPFI Guideline)

Land Use	Area (in Sq. Km.)	Percentage of Total Area
AGRICULTURE	0.02	0.27
COMMERCIAL	0.30	3.97
RESIDENTIAL	4.14	55.24
MIXED (C+R)	0.10	1.27
ECOLOGICAL	2.29	30.49
INDUSTRIAL	0.01	0.13
TRANSPORT	0.52	6.94
PUBLIC PLACE	0.13	1.70
Total	7.50	100.00%

Technical review for understanding **overall trends in land use development in the region / planning area.**

Table LUP-1: Ward Wise Land use distribution of the ULB (As per Base Line Survey 2007)

WARD NO	AGRICULTURE	COMMERCIAL	RESIDENTIAL	MIXED (C+R)	ECOLOGICAL	INDUSTRIAL	TRANSPORT	PUBLIC PLACE	TOTAL
1			0.50		0.40		0.05		0.95
2			0.40		0.20		0.06		0.66
3		0.05	0.20	0.01	0.29		0.02		0.57
4		0.09	0.60		0.02		0.03		0.74
5		0.07	0.40	0.01			0.02		0.50
6			0.19		0.01		0.06		0.26
7		0.01	0.21	0.01	0.10		0.03	0.01	0.37
8		0.01	0.11	0.01	0.01		0.04	0.01	0.19
9		0.01	0.16	0.02	0.07		0.02	0.01	0.28
10			0.15		0.23		0.03	0.01	0.42
11		0.01	0.23	0.01	0.00		0.02	0.00	0.26
12		0.01	0.15	0.01	0.00		0.01	0.00	0.18
13	0.01	0.01	0.11	0.01	0.10		0.01	0.00	0.25
14	0.01	0.01	0.16		0.20		0.02	0.02	0.42
15		0.01	0.19	0.01	0.00		0.03		0.24
16		0.01	0.16		0.00		0.01		0.18
17			0.06		0.10		0.01	0.01	0.18
18			0.02		0.00		0.02	0.03	0.07
19			0.06		0.32		0.01	0.01	0.40
20		0.01	0.09	0.01	0.23	0.01	0.02	0.02	0.38
Total	0.02	0.30	4.14	0.10	2.29	0.01	0.52	0.13	7.50

Figure 01, Existing land use distribution of ULB (As per Base Line Survey 2007)

Technical review of buildings unfit for human habitation

Table LUP-2: Buildings Unfit For Human Habitation

SI No.	Building	Location in the Ward	Number
1	Old dilapidated buildings which require repair	A survey has been proposed	
2	Unauthorised buildings, unfit for human habitation and might cause danger to neighbourhood areas [data from GIS]		
3	Feedback on congested stretches in the wards, narrow streets, areas of heavy encroachments [data from GIS]		
4	Stretch of squatter settlements that can be realigned and redeveloped to improve the living condition of the people. [data from GIS]		
5	Feedback on public buildings which require repair and up-gradation		
6	Any other Building Type		
	Total		

Table LUP-3: Congested and Encroached Stretches of Land

Street Name /No	Width of the street according to the municipality records	Encroached Stretches	Approx. Area of Encroachment
	A survey has been proposed		
Total			

Write up on key finding / issues crop up from Legal consultations and review of all regulatory framework and byelaws related to land use and development control.

DTG1 assessed the regulatory framework existing within the Municipality, related to building bye laws, reclamation of land, street alignment. DTG1 plans to undertake legal consultations with the Law Department to understand the legal status of land and buildings within the municipality. The data from the proposed land survey will assist DTG1 in undertaking schemes/actions for preventing and regulating unplanned and haphazard development of land. Also DTG1 would gather information from the Land and Land Reforms Department of the Government of West Bengal, which provide permissions for usage of land belonging to the State Government.

As the existing data is inadequate and ULB staff does not have adequate information to make the above assessments, ULB would engage the services of a professional engineering firm to conduct the surveys and make the necessary assessments.

Overall municipality wise Summary of Ward Committee consultation and feedback & key issues.

Table LUP-4: Community Feedback & Key Issues

Sl. No.	Land Use	Issues/Problems	Suggestions
1	Remodeling of childrens' park & playgrounds	Inadequate space for recreation of children & youth	Play ground development proposed
2	Beautification along the river side	Land erosion, pollution	Beautification of the river side proposed
3	Improvement of Tourist spots	Paucity of recreational space	Attract more tourist through improvement of the Picnic garden
Sl No.	Building	Issues/Problems	Suggestions
1	Ward Office	Lack of interaction with citizen	Const. Of Ward Office
2	Pay & Use Community toilets	Open defecation & over crowding in the existing toilets	Const. Of Pay & Use Community toilets
3	Const. Of Guest house	Poor condition of existing guest house	Construction of new guest house and maintenance of

			the existing one
	Street Name /Congested Stretches	Issues/Problems	Suggestions
1	Marking of roads and setting up of display boards	Name of the Roads are not marked	Road names need to be displayed for the convenience of the people

Integration of technical analysis and ward level consultations in **Workshop 1**.

Table LUP-5: Broad level Consensus on Land Use and Development Plan and Priorities in Geographic Area – Conclusions of Workshop 1

Sr. No	Ward/ Location	Land Use	Feedback of Technical Review and site visits	Feedback from Ward Committee	Priori ty issue	Reason s for being prioritised	Remarks / suggestions to manage the issue
1.	All	Open, unused land/ undevelope d land	Without proper demarcation , high possibility of encroachme nt	Same	Mediu m	Proper utilizati on of land	Ward committee to regularly monitor
2.	All	Public parks, squares and garden	No proper maintenanc e	Same	Mediu m	Proper mainten ance of parks & play grounds	Involve local clubs / CDS to be made responsible for maintenance
3.	All	Drainage network and outfalls	polluting the Wetlands/La kes/Tanks	Same	High	To tackle water logging problem	A drainage & sewage master plan proposed
4.	7	Landslide	Unplanned	Same	High	To manage disaster	Strengthening disaster management committee
		Building					
1	All	Old dilapidated buildings which require repair	No big structures	Same	Low		A survey is proposed to be undertaken
2	All	Unauthorise d buildings, unfit for	Lack of current status	Same	High		A survey is proposed to be undertaken

		human habitation and might cause danger to neighborhood areas					
3	All	Feedback on public buildings which require repair and up gradation	Lack of current status	Same	Low		A survey is proposed to be undertaken
4	All	Feedback on congested stretches in the wards, narrow streets, areas of heavy encroachments	Lack of parking space Demarcation of commercial area	Same	High		A survey is proposed to be undertaken
5	All	Stretch of squatter settlements that can be realigned and redeveloped to improve the living condition of the people.	Lack of current status	Same	Low		A survey is proposed to be undertaken

Chapter 3: Project Proposals & Prioritisation

Prioritisation framework for project proposals

Table LUP-6: Prioritisation Matrix Template applied by the ULB

Sr. No.	Criteria	Score		
		3	2	1
1	Beneficiary Group	Essentially excluded and poor communities staying in squatter settlements	Large number (residents across more than half the wards in the ULB)	Small number (residents within one ward of the ULB)

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2	Criticality of the project	Highest priority in case of requirements for other subcomponent plans and re-development/rehabilitation and resettlement of squatter / excluded settlements	Medium priorities to project that will lead to establishing development controls and which will require not require permissions and approvals of State Government.	Low priority to projects that will require a lengthy process of approvals from various authorities whether for acquiring land, or developing regulatory methods for control.
3	Conformity with other plans (environmental, intra municipal, trans-municipal infrastructure plans, slum infrastructure)	In complete conformity with all subcomponents of Component 1 i.e. Infrastructure, Land Use and Environment and linked with ongoing / planned trans-municipal infrastructure projects	In conformity with all subcomponent Plans of Component 2 and 3.	Deviates from existing plans
4	Current levels of commitment to the project	Project initiated / approved both technically and administratively	Project technically approved	Technical work not commenced, not yet technically approved
5	Sustainable in terms of operational cost and capacity of agency to maintain	User charges can be levied; part of capital costs can be recovered. ULB has capacity to maintain	Cost recovery is partly possible. ULB to finance O & M from own sources. ULB has staff / can contract staff for O & M.	Project not sustainable financially on standalone basis. ULB does not have human resources to maintain.
6	Time required for project completion / commissioning	Short gestation – up to 6 months	Medium gestation – 6 months to one year	Long gestation – 1-2 years
7	Land availability and legal approvals	Land allocated for project, in possession free of all encumbrances. All approvals are routine. Have right of way. All acquisitions can be done by the Municipality.	Land identified, but not in possession / has some encumbrances. Approvals are routine.	Land not identified / do not have approval on right of way. Some approvals are permissions for exceptions to normal.
8	Per capita cost [total costs ÷ no. of beneficiaries], where total cost = capital cost + recurring cost over project life	Per capita cost is lowest amongst other Land Use and Development Planning projects	Per capita cost is at average levels amongst other Land Use and Development Planning projects	Per capita cost is highest amongst other Land Use and Development Planning projects
9	Rehabilitation / leveraging of existing assets and capacities	Largely rehabilitation of existing assets, links to existing capacities	Partly involves rehabilitation, partly leverages existing capacities	Almost entirely Greenfield project

Priorit y No	Project title	Benefi ciary group	Criticalit y of the project	Confor mity	Levels of commit ment	sustain ability	Time requir ed	Land availa bility	Per capit a cost	Reha bilita tion	Total	Ave rag e	Final Roun d off
1	Consultancy Services for Preparation oh Master Plan on Land Use Development	1	1	1	1	1	2	2	1	1	11	1.22	1
2	Maintenance of Existing Parks & Play ground	2	2	1	1	1	2	2	1	1	13	1.44	1
3	Feasibility study and development of Master Plan for Tourism in Kurseong Town	1	1	1	1	2	2	3	1	1	13	1.44	1
4	Widening and Strengthening of major arterial roads (Zone wise) with hillside protection walls in disaster prone areas covering 31,000 metres	3	1	2	1	3	2	1	1	1	15	1.67	2
5	Beautification of roads with indicators, lining, signals, etc., with Construction and Taxi parking Stand	2	1	2	1	1	3	3	1	1	15	1.67	2
6	Beautification of garden in the Municipality office campus	2	1	1	1	3	2	2	1	3	16	1.78	2

Prioritise and allocation of funds to Projects**Table LUP-7: - List of All Projects under Land use & Development Plan**

Prio rity No.	Project Title	Theme	Start Date	End Date	TCR	ARE	ISF	Fund Name
1	Consultancy Services for Preparation of Master Plan on Land Use Development	Theme 2	Sep-09	Sep-10	0.00	0.00	0.50	MF
2	Maintenance of Existing Parks & Play ground	Theme 2	Sep-08	Sep-09	0.00	1.00	0.00	MF-MAINTAINANCE
3	Feasibility study and development of Master Plan for Tourism in Kurseong Town	Theme 2	Apr-08	Oct-09	0.90	0.00	0.00	12th Finance Com
4	Widening and Strengthening of major arterial roads (Zone wise) with hillside protection walls in disaster prone areas covering 31,000 metres	Theme 2	Nov-08	Sep-13	60.00	0.00	0.00	NCRF
5	Beautification of roads with indicators, lining, signals, etc., with Construction and Taxi parking Stand	Theme 3	Apr-08	Mar-10	37.50	0.00	0.00	UIDDSMT (TAXI STAND)
6	Beautification of garden in the Municipality office campus	Theme 1	Nov-09	Mar-10	0.00	0.00	1.20	MF
Sub Component Total					98.40	1.00	1.70	

LIST OF DROP PROJECTS

Sl. No.	Project Title	Project Cost	Reason for drop
1	Purchase or Lease of Land for Construction of Municipal Infrastructure like Matri sadan & Health Sub Centres	80.00	Fund insufficient
2	Purchase or Lease of Land for Construction of Municipal Infrastructure like Indoor Stadium & Amusement Park.	50.00	Fund insufficient
3	Land use planning for disaster management	5.00	Fund insufficient
4	Resettlement Plan for the Evicted Settlers	10.00	Fund insufficient
5	Setting up of Land Use and Development Monitoring Cell in accordance with UDPFI	5.00	Fund insufficient
6	Purchase of land for construction of rehab centre for disabled.	25.00	Fund insufficient
7	Purchase of Land for construction of new office building.	20.00	Fund insufficient

Environment Management Plan
(Sub-component 1.5)

Kurseong Municipality
DDP Main Book

2008-2009 to 2012-2013

Chapter 1: Objectives for Environment Management Plan

The environment sub-component of the DDP refers to planning for environmental improvement projects and services at the ULB level, viz. projects or services that are either wholly located within a ward or cut-across more than one ward, but are almost entirely located within the ULB boundaries. Environmental projects benefit a large number of citizens within the ULB, typically their benefits extending beyond limited number of colonies / slums or settlements. Environment does not follow any administrative boundaries. Nevertheless projects or services selected in the environment plan are typically confined to the boundaries of the ULBs, and will indicate trans-municipal implications where relevant.

Development objectives set for the ULB for basic municipal services at ULB-wide scale

Goal: To rejuvenate Kurseong as the place of white orchids through upgrading environmental standards and maintaining a cultural sanctity	
Situation Assessment	Development objectives
➤ White orchids from Kurseong is almost missing	➤ To make Kurseong – the Land of White Orchids
➤ Occurrence of frequent landslides.	➤ To upgrade the Environmental living condition, campaign regularly to aware public about various types of pollution generating & environmental degradation activities including disaster management preparedness in times of earth quake, cloud burst and land slides.
➤ Non-implementation of Environmental regulation for sanctioning / Issuing license of different projects	➤ Conservation and preservation of existing environmental assets and heritage buildings
➤ No environment monitoring system	➤ Continuous monitoring on environmental issues
➤ Water scarcity	➤ Rain Water harvesting
➤ Lack of Social and Cultural environment	➤ Building strong cultural environment
➤ No disaster management initiative exist	
➤ Faulty and polluted Drainage system	➤ Better Introduction & implementation of Environmental Regulations & rules to control all types of pollution
➤ Inadequate number of parks and maintenance of the same	➤ Developing tourist potential of Kurseong and tapping resources.
➤ Gap between ULB and environment monitoring agencies	
➤ Environmental degradation (air, water, noise, bio-diversity)	➤ To restore ecological balance ➤ Lessons in school about Kurseong demography and environmental protection
	➤ To take proper measure to provide (i) safe drinking water to all
	➤ Protection of animal husbandry, flora and fauna.

Attachments: Minutes of meeting chaired by Chairperson for setting development objectives for the ULB, in Stage 2, Step 1 **(in Annexure Volume-4)**

Chapter 2: Environment Plan – Situation assessment

Environment over view:

Water bodies, wetlands

There are no water bodies or wetlands available within the municipality. The drinking water is supplied to the Town through pipelines from the Catchment sources situated more than 12 K.M. away from Kurseong. The town does not depend on the ground water because of its hilly terrain. As a result there is risk of ground water contamination and also the problem of arsenic, which the towns of plain land, is not a problem here. The P.H.E. Department is maintaining the water supply network in the municipality.

The water samples from the eight identified sources (four each in Darjeeling and Kurseong) were collected and the analysis of the same was done for the above mentioned parameters. To include the seasonal variation, the analysis is done in three different seasons, viz. monsoon, post monsoon and pre monsoon. The collection and analysis of samples were done as per the following Programme:

Season	Collection	Analysis
Monsoon	7th and 8th August, 2007	12 – 14 August, 2007
Post-monsoon	29th and 30th November, 2007	6th and 7th December, 2007
Pre- Monsoon	27th and 28th May, 2008	29th August and 5th June 2008

The results of the observation for different seasons are recorded in the following tables:

Table 1: Physico-Chemical and Bacteriological Results (Monsoon Season)									
PARAMETER	UNIT	SAMPLE							
		1	2	3	4	5	6	7	8
pH		7.67	6.5	6.37	5.41	6.78	6.97	6.4	7.5
TURBIDITY	NTU	0	0	0	1	0	0	0	0
CONDUCTIVITY	Mho/cm	40	38	62.2	64.1	39	27	50.5	39
TDS	mg/L	36	34.2	56	57.7	35	24.3	45.5	35
CHLORIDES	mg/L	6	50	6	9	6	10.5	7	7
SULPHATES	mg/L	4	4.4	2.8	3	2.5	NIL	10	2.4
IRON	mg/L	0.1	0.15	0.15	0.15	0.05	0.05	0.05	0.1
HARDNESS	mg/L	25	77	42	19	22	38	20	20
NITRATE	mg/L	0	23	0	0	0	0	0	0
COLIFORM (MPN)	No/100ml	101.3	129.8	45.3	65.9	19.2	109.1	48	109.1
E-Coli	No/100ml	-	-	-	-	-	-	3	3

Table 2: Physico-Chemical and Bacteriological Results (Post Monsoon)

PARAMETER	UNIT	SAMPLE							
		1	2	3	4	5	6	7	8
pH		7.11	6.3	6.4	6.7	6.6	6.72	6.58	6.5
TURBIDITY	NTU	1	1	2	1	1	1	2	2
CONDUCTIVITY	Mho/cm	35	30.6	42.2	15.4	26.6	25.9	29.2	15.1
TDS	mg/L	31.5	27.5	38	14	24	23.3	26.3	13.6
CHLORIDES	mg/L	7	56	7	8.5	6.5	9.5	8	8
SULPHATES	mg/L	2	2.8	2	2.5	2	2	4.2	2
IRON	mg/L	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.15
HARDNESS	mg/L	19	34	1	14	20	5	10	10
NITRATE	mg/L	-	12	-	-	-	-	-	-
COLIFORM (MPN)	No/100ml	15	109.1	59.1	11.1	12.4	94.5	94.5	88.2
E-Coli	No/100ml	-	-	-	-	-	-	2	2

Table 3: Physico-Chemical and Bacteriological Results (Pre Monsoon)

PARAMETER	UNIT	SAMPLE							
		1	2	3	4	5	6	7	8
pH		7.5	6.1	6.3	6	6.5	6.6	6.4	6.7
TURBIDITY	NTU	1.5	1	2	2.5	1	1	1	2
CONDUCTIVITY	Mho/cm	42	38	50	35	33	20	35	20
TDS	mg/L	37.9	34.2	45	31.5	29.7	18	31.5	18
CHLORIDES	mg/L	9	40	9.5	9	7.5	9	10.5	8.5
SULPHATES	mg/L	4.5	4.5	2.5	3	3	2.5	8.5	4
IRON	mg/L	0.2	0.2	0.15	0.15	0.25	0.15	0.1	0.1
HARDNESS	mg/L	28	45	38	15	25	35	35	32
NITRATE	mg/L	0	20	0	0.2	0.82	0.1	0	0.15
COLIFORM (MPN)	No/100ml	101.3	109.1	75	50	45.3	110	101.3	109
E-Coli	No/100ml	-	-	-	-	-	-	1	2

Tables 1 to 3 show pH value results of various samples in different season viz. monsoon, post monsoon and pre monsoon respectively. Recommended desirable limits as per BIS ranges between 6.5 to 8.5 in case of drinking water.

For all the samples the pH value lie within the recommendation, except for samples 3, 4 and 7 during the monsoon season; for which the values being 6.37, 5.41 and 6.4 respectively.

For the post monsoon period, the pH value for sample number 2 is 6.3 and sample 4 it is 6.4, which falls below the desirable limits. Similarly for pre-monsoon season sample 2 has pH value of 6.1, sample 3 – 6.3, sample 4 – 6.0 and sample 7 – 6.4.

As such these samples are acidic in nature. The other samples are found to be

within the prescribed range and fit for domestic use.

Source: A Thesis Report Submitted by Mr. Anand Sharma, (M.E.) in Partial Fulfillment of the Requirement for the Award of the Degree of Master of Engineering in Construction Technology and Management to Punjab University, Chandigarh, June 2008.

Industries

There is no major industry in the ULB. Hence the source of pollution is limited to that extent.

Waste disposal sites

The land fill site is inadequate and located near to the main business area. With the rapid urbanization, the pressure on the landfill site is expected to create environmental problem in the ULB. The identification and procurement of an alternate landfill for the solid waste is thus an urgent necessity. The clinical waste generated has already become a problem for the municipality.

Road network

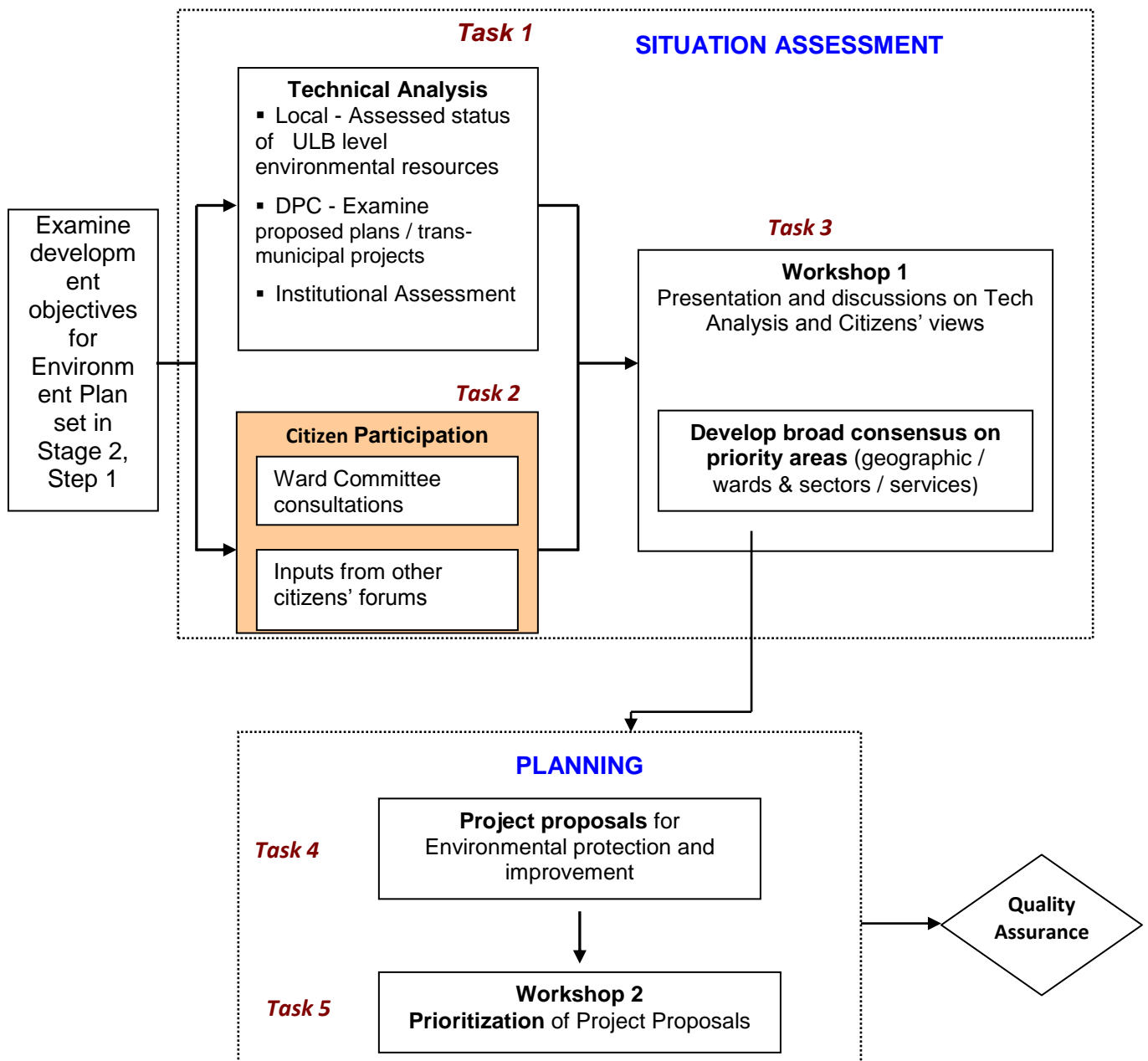
The existing road network is already over strained. The vehicular pollution needs to be checked soon to arrest further degradation of the environs of this small ill equipped township.

Details of on-going environmental protection measures:

There is no ongoing initiative regarding environment protection. The general awareness regarding the environmental degeneration is also low.

Overall municipality / Corporation wise Summary of Ward Committee consultation and feedback & key issues. Attached all Ward-wise summary statement of citizens' feedback, plans and key priority issue as per format for Ward Committee Consultation as provided in **Annexure 4 (in Annexure Volume-3)**

Figure 01, Process flow for Preparation of Environment Management Plan



CHAPTER 3: PROJECT PROPOSALS & PRIORITISATION

Key priority areas for the ULB with reference to outcomes of **Workshop 1**.

Table EMP 3.1: Broad level Consensus on Environment Management Plans and Priorities – Conclusions of Workshop 1

Sl. No.	Priority Issue	Location	Reasons for being prioritised	Remarks / suggestions to manage the issue
1.	Quality of Drinking Water	ULB	Irregular testing and checking	Construction of water treatment plant Improvement of catchments area
2.	Garbage Collection	ULB	At present no house to house collection No proper dumping ground	Daily Collection of garbage/ waste from household / market etc. Vermicomposting as a mechanism of solid waste management Development of dumping area.
3.	Use of plastic	ULB	Use of plastics are increase day by day. Lack of awareness	Awareness Campaign Segregation of plastic at source. Plastic recycling plant.
4.	Air / Noise Pollution	ULB	Noise from bus and other vehicle	To frame rule Regular checking.
5.	Green Area	ULB	Green belt parks etc. improper maintenance	Development of parks Regular maintenance.
6.	Landslide	Ward No. 7	Problem of landslide	Consultation with experts

Table EMP 3.2: Format for Analysis of Sectors/Resources and Suggestions

NAME OF THE MUNICIPAL TOWN: KURSEONG MUNICIPALITY

Water Quality

Water bodies that exceed the water quality criteria	Sources and causes of pollution	What needs to be done
Drinking Water	Certain parameters in groundwater are more than the desirable limits. Non availability of treatment of ground water.	Ground water treatment could be provided with chlorination and iron removal system Sanitary inspection of all sources of drinking water and in distribution system. Regular water quality monitoring and surveillance. Improvement of catchment sources.

Disaster Preparedness

Type of Disaster	Levels of preparedness / assets / manpower / capacity / funds	What needs to be done
Landslide		Committee needs to be formed at ULB to monitor landslides and for disaster preparedness.

Table EMP 3.3: Roles and Mandates of Various Related Institutions Operating in the ULB

Sr. No.	Sector / Environmental Resource	Function	Role played by Agency and department within that agency	Role of ULB so far	Key observations / Issues
1.	Air Pollution	Monitoring Air Quality	WBPCB	No system exists	Air pollution is an important issue in some Wards
		Emission control Industry Vehicles	WBPCB RTA	No system exists	Regulatory measures are taken regularly
2.	Water Quality	Monitoring Water Quality.	WBPCB	ULB has no such system at present	Supply of safe drinking water through surface water treatment plants is required
3.	Green Coverage	Maintaining Green Cover	ULB	Undertaking Tree Plantations	ULB should maintain the green cover of the town
4.	Urban Agriculture	Preservation of agricultural land in fringe areas	District Planning Authority	None/Insignificant	
5.	Heritage Conservation	Recognizing sites and buildings, categorizing and preserving wherever required	-	None	Identification and proper maintenance of Heritage sites is required
6.	Disaster Preparedness	Ability to respond to a disaster situation	Office of SDO	Disaster management	Some wards are prone to Landslide due to hilly terrain

Priority Matrix

Prio rity No	Project title	Benefic iary group	Criticality of the project	Conf ormi ty	Levels of commit ment	sust aina bilit y	Time require d	Land availa bility	Per capi ta cos t	Reh abil itati on	Total	Average	Final Round off
1	Training on Environmental Awareness Programme Involving Environmental Experts	1	2	1	1	1	1	1	1	1	10	1.11	1
2	Setting Up of an Emergency Cell With 24 hrs Helpline During Land Slides and subsequent Rehabilitation Natural Calamity. With router and dedicated lease line.	1	1	2	1	2	1	1	1	1	11	1.22	1
3	Rescue Operation & Disaster Preparedness team involving NGO/CBO to cater emergencies during landslides and Cloud Burst	2	1	2	1	1	2	2	1	1	13	1.44	1
4	Environment Education Programmes and workshops – Clean and Green municipalities amongst school children	1	1	2	1	2	2	2	1	1	13	1.44	1
5	Social Forestry Project in ward no 1 , 2, 7 , 20, 3.	1	2	2	1	2	1	3	2	1	15	1.67	2

Table EMP 3.4: Final project prioritization and resource availability (as per Annexure 9 or as per the following format)

Priority No.	Project Title	Theme	Start Date	End Date	TCR	ARE	ISF	Fund Name
1	Training on Environmental Awareness Programme Involving Environmental Experts	Disaster Preparedness	Nov-08	Mar-13	2.00	0.00	0.00	NCRF
2	Setting Up of an Emergency Cell With 24 hrs Helpline During Land Slides and subsequent Rehabilitation Natural Calamity. With router and dedicated lease line.	Disaster Preparedness	Apr-10	Mar-12	0.00	0.00	8.08	MF
3	Rescue Operation & Disaster Preparedness team involving NGO/CBO to cater emergencies during landslides and Cloud Burst	Promotion of community awareness	Nov-08	Mar-13	8.00	0.00	0.00	NCRF
4	Study on prevention of Land slides & formulation of immediate & long term action plans	Green Cover	Apr-09	Mar-10	0.00	0.00	1.00	MF / NIDM
5	Social Forestry Project in ward no 1, 2, 7, 20, 3.	Cultural Heritage / Local arts and crafts	Apr-10	Mar-11	0.75	0.00	0.00	EGS
Sub Component Total					10.75	0.00	12.61	

LIST OF DROP PROJECTS

Sl. No.	Project Title	Project Cost	Reason for drop
1	Promotion of cultural fairs	5.00	Fund insufficient
2	Pollution Management Programme	3.00	Fund insufficient

Proceedings of **Workshop 1**, recorded in standard format for recording workshops **(in Annexure Volume-4)**

Attached project summary for all projects in this category as per **Annexure 6 (in Annexure Volume-3)]**

Attachments: All drawings, reports and supporting documents for the project proposals

Proceedings of **Workshop 2**, recorded in standard format for recording workshops **(in Annexure Volume-4)**

Prioritisation framework for project proposals *[explain the prioritization matrix finalized and applied by the ULB]*

Attachments:

Matrix for prioritisation of project proposals applied by the ULB (as per **Annexure 8 (in Annexure Volume-3)**)