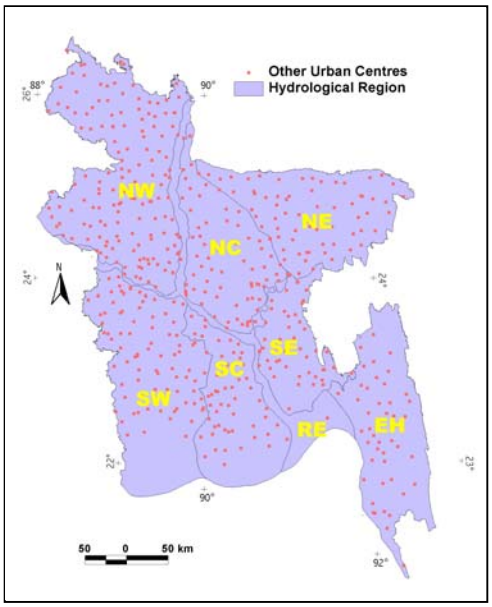
Large and Small Town Sanitation and Sewerage Systems Ref: **TR 005**

Basic Data

NWMP Sub-sector **Towns and Rural Areas**

Region(s) **Nationwide significance**



Relevance to NWPo

The programme will address basic policy objectives to provide hygienic and affordable sanitation and sewerage services for all the inhabitants of Large and Small Towns, especially poor and disadvantaged communities. The NWPo "mandates relevant public water and sewerage institutions to provide necessary drainage and sanitation, including treatment of domestic wastewater and sewage and replacement of open drains and construction of sewers, in the interest of public health", "…regulate the use of water for preventing wastage and pollution by human action", and "…create awareness among people in checking water pollution and wastage." The NPSWSS reinforces these aims by highlighting the need for basic sanitation facilities, public health implications, environmental impacts and the importance of promoting social awareness through behavioural development and hygiene education especially for women and children. Policy also mandates that investments to improve and extend sanitation and sewerage services should be paralleled by appropriate and substantive institutional and financial reform to attain:

(a) significant improvements in service efficiency and financial viability of existing institutions;
(b) private sector participation;
(c) stakeholder consultation, particularly in peri-urban and poor communities; and
(d) full cost recovery, particularly in the application of the "polluter-pays" principle.

Purpose of Programme

There are 522 towns (1991 Census) throughout the country: 44 large towns (more than 50,000 people) with a total population of 9.8 million in 2000; and 478 small towns (less than 50,000 people) with a combined population of 4.2 million. The total population of all towns (large and small) is expected to increase five-fold in the next 50 years, from nearly 14 million in 2000 to 36 million in 2025 and 67 million by 2050. All towns will experience increasing pressure to improve and extend their public services and infrastructure, including the need for appropriate sanitation and sewerage services for all inhabitants. At present, NWMP estimates for the whole sector indicate that pit latrines (with or without a septic tank) are the predominant form of sanitation, serving 65% of the population in large towns and 55% in small towns. The rest of the urban population, mainly the poor and fringe communities, rely on "hanging latrines" (often over the nearest water course) or have no basic sanitation at all. Against this background, local pollution levels will continue to rise leading to serious public health problems and the increased likelihood of epidemic outbreaks of waterborne and water-related diseases. Current estimates indicate that 35% of town populations are classified as living in poverty.

The investment programme will require sustained commitment to provide appropriate sanitation facilities for all inhabitants to raise service coverage to 100% by 2010 in both large and small towns. The investment focus is expected to concentrate on raising the overall standards of basic sanitation, with campaigns for the construction of hygienic latrines (with and without septic tanks) and community sanitation facilities, especially for the urban poor. Development of waterborne sewerage systems (e.g. smallbore systems) is not generally foreseen until after 2025.

Programme Outline

Improvements and extensions of appropriate and affordable sanitation and waterborne sewerage systems will continue throughout the implementation of the NWMP. The coverage targets by service type are summarised as follows:

Component	Year			
	2000	2005	2010	2025
Large Towns (population greater than or equal to 50,000)				
Population (million)	9.8	12.2	14.9	25.0
Sanitation coverage (%)				
Pit latrine	60	80	55	25
Household latrine with septic tank	5	10	30	30
Community sanitation facility	0	10	15	10
Smallbore sewerage system	0	0	0	35
Sewerage system with WWTP	0	0	0	0
Total	65	100	100	100
Small Towns (population less than 50,000)				
Population (million)	4.2	5.2	6.4	10.7
Sanitation coverage (%)				
Pit latrine	50	75	65	40
Household latrine with septic tank	5	10	25	40
Community sanitation facility	0	5	10	5
Smallbore sewerage system	0	0	0	15
Total	55	90	100	100

Financing Arrangements

For effective sustained implementation, the investment programme will require the active and co-ordinated participation of the public sector (GoB and international development agencies), private sector (domestic and foreign, the latter in the medium to long term), and community based organisations with the support of NGOs. Indicative financing targets are presented below:

Sector	%
Public (GoB and international development agencies)	75
Private (domestic and foreign)	20
Local Communities	5
Total	100

The Government and the executing agencies will also need to ensure the availability of adequate funds for:
(a) rehabilitation of existing sanitation and sewerage facilities;
(b) capital replacement during and after the NWMP period; and
(c) effective operations and maintenance.

In this context, the establishment of full cost recovery pricing will be essential.

Objectives and Indicators

Objective	Suffix	Indicators/Means of Verification	Due
• Sustainable operation and maintenance of town sanitation systems	I1	• Frequency of service break downs • Response times	2011
• Reduced environmental pollution	I2	• Fæcal coliform counts	2016
• Improved public health	I3	• Public health statistics	2021
• 100% of large and small town populations have access to sanitation facilities	K	• Survey reports	2026
• Demand for sanitation facilities and services created and satisfied in towns and rural areas	D	• % service coverage verified by surveys	2026

Institutional Arrangements

The institutional arrangements for programme implementation are expected to comprise three components as defined by the NWPo and NPSWSS:

(a) Public sector - under the policy of decentralisation, the local municipal authorities (e.g. Paurashavas and Upazilas) will have prime responsibility, with the technical support of DPHE and LGED. Much greater emphasis will be given to increased autonomy and management expertise, organisational reform, service coverage and efficiency, full cost recovery and financial viability.
(b) Private sector participation - in the medium to longer term, the private sector is expected to play an increasing role in the provision of sanitation and sewerage services in the Large and Small Towns. This will include: contract services (e.g. operation and maintenance of specific facilities, revenue billing and collection, etc.); and BOT/BOOT schemes for smallbore sewerage systems in a town or group of towns. The latter would also be developed in partnership with community based organisations.
(c) Community-based and NGO participation - in the peri-urban and disadvantaged areas, community sanitation facilities will be encouraged with investment funds from GoB, and the collaboration of NGOs and the private sector. Prominence should also be give to the active participation of women.

The implementation of these institutional developments will need to be carefully formulated and programmed with the full political commitment of GoB and interested stakeholders. In the short to medium term, the Government will also establish an appropriate independent Regulatory Framework to supervise and monitor public and private sector performance in the provision of sanitation and sewerage services.

References and Documentation

(a) Chapter 7, Development Strategy Report, March 2001
(b) National Water Resources Database in WARPO

Linkages

The programme to improve and develop sanitation and sewerage facilities in the Large and Small Towns should be closely linked and co-ordinated with other NWMP programmes, namely:
(a) Local Government Needs Assessment for Water Management (ID 001);
(b) Local Government Capacity Building for Water Management (ID 005);
(c) Independent Regulatory Bodies for the Water Supply and Sanitation Service Sector (ID 002);

(d) Support to the Preparation of New Legislation (EE 001);
(e) Field Testing of Participatory Management Models (EE 002);
(f) Water Resources Legislation – Preparation of Supporting Ordinances (EE 003);
(g) Project Preparation Procedures - Guidelines and Manuals (EE 004);
(h) Regulatory and Economic Instruments (EE 005);
(i) Field Testing & Finalisation of Guidelines for Participatory Water Management (EE 006);
(j) Raising Public Awareness in the Wise Use and Management of Water (EE 010);
(k) Private Sector Participation in Water Management (EE 011);
(l) Alternative Financing Methods for Water Management (EE 013);
(m) Urban Arsenic Mitigation (TR 001);
(n) Large and Small Towns Water Supply and Distribution Systems (TR 003);
(o) Large and Small Towns Flood Protection (TR 007);
(p) Large and Small Towns Stormwater Drainage (TR 008);
(q) National Clean-up of Existing Industrial Pollution (EA 002);
(r) National Pollution Control Plan (EA 001);
(s) National Water Quality Monitoring (EA 003); and
(t) Public Awareness Raising and Empowerment in respect of Environmental Issues (EA 010).

The Inventory and Asset Management Plan of the Water and Sanitation Sector (MC 001) is also relevant here.

In addition, planning and implementation should be co-ordinated with the respective Local Government authorities (District towns, Paurashavas (municipalities), Upazila headquarters and urban growth centres), Ministry of Local Government, Rural Development and Co-operatives (MoLGRDC), Department of Public Health Engineering (DPHE), Local Government Engineering Department (LGED), Urban Development Directorate (UDD), Ministry of Health (MoH), Ministry of Industry (MoI), Department of Environment (DoE), WARPO, NGOs and other interested parties.

Risks and Assumptions

The programme for the provision of hygienic sanitation and sewerage services in the Large and Small Towns has a number of important risks. They fall into four categories: technical; institutional; financial and environmental.

The technical risks are largely confined to the general poor standards of maintenance of public infrastructure. This limitation can be addressed if the related institutional and financial issues are addressed in a constructive and comprehensive manner.

The institutional risks focus mainly on the political willingness and commitment to reform the organisation and management of sanitation and services through a concerted drive to improve efficiency, involve the private sector, and promote effective user participation. National policy statements (NWPo and NPSWSS) clearly indicate that Government is aware of the problems, but it will need real political commitment to create an independent structure which is solely dedicated to the provision of effective and efficient sanitation services for all inhabitants.

The financial risks are that the necessary investment and maintenance resources for the Large and Small Towns will become increasingly constrained, especially from international sources, if the institutional and efficiency issues are not addressed in a constructive manner, and Government does not give sustained support for the policy of full cost recovery. Future Government investment budgets will be under increasing pressure from other public sectors;

therefore, it is crucial that there is a phased introduction of private sector participation and effective promotion of community-based systems particularly for peri-urban and disadvantaged communities.

The environmental risks are mainly related to the increasing volumes of untreated wastewater, associated public health risks and environmental degradation in the towns. There will be short term environmental impacts associated with construction activites.

Assumptions:

- Materials used for construction of new systems will give the assumed working lives.
- Construction of new systems is adequately supervised so as to minimise future operation and maintenance.
- Technical skills will be adequate to enable the efficient and effective O & M of the sewerage systems.
- The operating utility will be able to run the sewerage supply function without political interference.
- Full cost recovery is affordable.
- Environmental risks can be successfully mitigated.

Large and Small Town Sanitation and Sewerage Systems

Ref : **TR 005**

Cluster :	**Towns and Rural Areas**	Region(s) :	**All**
Focus/Foci :	**Sanitation**	Location :	**Nationwide**
Start Year[1] :	**2002** Duration[2] : **25 year(s)**	Agency(s) Responsible :	**Paurashavas** **(Lead)** LGIs, LGED, DPHE, CBOs (Supporting)

Short Description :

§4.6.c of the NWPo "mandates relevant public water and sewerage institutions to provide necessary drainage and sanitation, including treatment of domestic wastewater and sewage and replacement of open drains and construction of sewers, in the interest of public health." The population of large (>50,000) and small towns is expected to more than double over the next 25 years, from 14 million in 2000 to 36 million in 2025. At present, between 55% (small towns) and 65% (large towns) of the population is adequately served by sanitation facilities, mainly by pit latrines with/without septic tanks. In the poor areas and fringe communities, people are dependant on 'hanging latrines' and open defecation which exacerbates pollution and public health problems and increases the likelihood of epidemic outbreaks of waterborne and water-related diseases. This programme aims to provide appropriate sanitation facilities and raise and sustain service coverage at 100% by 2010.

MIS Links

Cost Calculation :	TR Programme costing.xls	Map :	TR 005 Map.jpg
Disb't Schedule :	TR Programme costing.xls	Description :	TR 005 PgP.doc

Finance

	Costs	Private	Funding (%) GoB	Beneficiaries	Expected by ProgrammeYear
Total Capital[3]	**34,894.00** MTk	**0%**	**100%**	**0%**	**25**
Ultimate Recurring	**4,543.10** MTk/yr	**n/a**	**0%**	**100%**	**26**

Date of Data : **31** (dd) **07** (mm) **01** (yy)

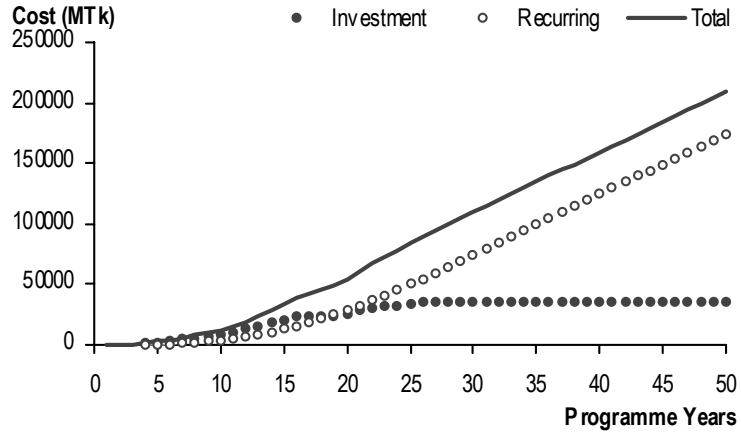
Status : **Identified**

Financial Base Year: **mid-2000**

Planned Expenditure (to date) : **0** MTk

Actual Expenditure[4] (to date) : **0** MTk

Stacked Cumulative Cash Flow Chart



Monitoring

Objective	Indicator	Present Status[5]
• Sustainable operation and maintenance of town sanitation systems	• Frequency of service break downs • Response times	NYD
• Reduced environmental pollution	• Fæcal coliform counts	NYD
• Improved public health	• Public health statistics	NYD
• 100% of large and small town populations have access to sanitation facilities	• Survey reports	NYD

Notes : 1. Indicative 2. Until commissioning 3. Inclusive of planning, design _supervision 4. For future monitoring purposes and NWMP updates
5. Present Status keys: NYD- Not yet due, IP- In progress, D- Done

National Water Management Plan

Programme Costing Sheet

Programme Ref	**TR 005**
Title	**Large and Small Town Sanitation and Sewerage Systems**

Assumptions:

Taka/US$	51.000	TA duration	0.0	years	All prices in mid-2000 values
		Investment duration	25.0	years[1]	

Item	Unit	Quantity	Rate		Amount	O&M	O&M/yr
			US$	Tk'000	TkM	%	TkM
Technical Assistance							
Expatriate consultants (all-in rate)							
Senior National consultants (all-in rate)							
Mid-level National consultants (all-in rate)							
Sub-totals							
Other general TA programme costs							
Specific other TA programme costs							
Total TA Costs							
			Lump Sum Costs				
Investment items - short term			Large towns	Small towns			
Standard single pit latrine			782.00	367.00	1,149.0	*22.5%*	258.5
Household latrine with septic tank and soakaway			312.00	134.00	446.0	*18.8%*	83.8
Community level sanitation facility			2,109.00	456.00	2,565.0	*21.3%*	546.3
Investment items - medium term							
Standard single pit latrine				45.00	45.0	*22.5%*	10.1
Household latrine with septic tank and soakaway			1,385.00	457.00	1,842.0	*18.8%*	346.3
Community level sanitation facility			1,765.00	656.00	2,421.0	*21.3%*	515.7
Investment items - long term							
Standard single pit latrine				26.00	26.0	*22.5%*	5.9
Household latrine with septic tank and soakaway			1,287.00	1,144.00	2,431.0	*18.8%*	457.0
Community level sanitation facility			455.00		455.0	*21.3%*	96.9
Small bore sewerage system with household septic tanks (urban)			8,393.00	1,200.00	9,593.0	*11.1%*	1,064.8
Small bore sewerage system with street-level septic tanks (urban)			8,993.00	1,928.00	10,921.0	*10.6%*	1,157.6
Total Investment Items					**31,894.0**	***14.2%***	**4,543.1**
Overall Programme Costs					**31,894.0**		**4,543.1**
Additional NWMP provision to maintain capacity ahead of demand					**3,000.0**		**427.3**
					34,894.0		**4,970.4**

TA costs for this programme are included in the capital costs

Notes

1 The step-wise approach to investment necessary to achieve and maintain installed capacity ahead of demands may mean that the total investment against +25 year demand is disbursed within the 25 year horizon. However, an additional provision will also be disbursed before the end of the 25 year, in order again to keep capacity ahead of ongoing demand increases.

Large Town Sanitation (>50,000 in 2025 but not SMAs) — **Coverage Targets (%)**

Option	Description	Total Annual Cost (Tk/capita)	2000	2005	2010	2025	2050
	Total population		9,780,000	12,220,000	14,910,000	24,980,000	46,900,000
N4.1	Facility for Night-soil Collection and Treatment	109	0%	0%	0%	0%	0%
N4.2.1	Standard Single Pit Latrine	45	60%	80%	55%	25%	5%
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility	80	5%	10%	30%	30%	20%
N4.3	Large Septic Tank + Soakaway	117	0%	0%	0%	0%	0%
N4.4	Community Level Sanitation Facility	370	0%	10%	15%	10%	5%
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)	140	0%	0%	0%	15%	25%
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)	130	0%	0%	0%	20%	40%
N4.7.5	Main Sewerage System - Towns	600	0%	0%	0%	0%	5%
			65%	**100%**	**100%**	**100%**	**100%**

Large Town Sanitation (>50,000 in 2025 but not SMAs) — **Coverage Targets - Number of Population**

Option	Description	2000	2005	2010	2025	2050
	Total population	9,780,000	12,220,000	14,910,000	24,980,000	46,900,000
N4.1	Facility for Night-soil Collection and Treatment	0	0	0	0	0
N4.2.1	Standard Single Pit Latrine	5,868,000	9,776,000	8,200,500	6,245,000	2,345,000
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility	489,000	1,222,000	4,473,000	7,494,000	9,380,000
N4.3	Large Septic Tank + Soakaway	0	0	0	0	0
N4.4	Community Level Sanitation Facility	9,780	1,222,000	2,236,500	2,498,000	2,345,000
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)	0	0	0	3,747,000	11,725,000
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)	0	0	0	4,996,000	18,760,000
N4.7.5	Main Sewerage System - Towns	0	0	0	0	2,345,000
		6,366,780	12,220,000	14,910,000	24,980,000	46,900,000

Large Town Sanitation (>50,000 in 2025 but not SMAs) — **Incremental Coverage Targets - Number of Population**

Option	Description	2000	2005	2010	2025	2050
	Total population	9,780,000	104,800,000	107,100,000	107,700,000	88,000,000
N4.1	Facility for Night-soil Collection and Treatment		0	0	0	0
N4.2.1	Standard Single Pit Latrine		3,908,000	-1,575,500	-1,955,500	-3,900,000
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility		733,000	3,251,000	3,021,000	1,886,000
N4.3	Large Septic Tank + Soakaway		0	0	0	0
N4.4	Community Level Sanitation Facility		1,212,220	1,014,500	261,500	-153,000
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)		0	0	3,747,000	7,978,000
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)		0	0	4,996,000	13,764,000
N4.7.5	Main Sewerage System - Towns		0	0	0	2,345,000

Large Town Sanitation (>50,000 in 2025 but not SMAs) — **Incremental Investment Requirements - Number of Population**

Option	Description	2000	2005	2010	2025	2050
	Total population	9,780,000	12,220,000	14,910,000	24,980,000	46,900,000
N4.1	Facility for Night-soil Collection and Treatment		0	0	0	0
N4.2.1	Standard Single Pit Latrine		3,908,000	0	0	0
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility		733,000	3,251,000	3,021,000	1,886,000
N4.3	Large Septic Tank + Soakaway		0	0	0	0
N4.4	Community Level Sanitation Facility		1,212,220	1,014,500	261,500	0
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)		0	0	3,747,000	7,978,000
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)		0	0	4,996,000	13,764,000
N4.7.5	Main Sewerage System - Towns		0	0	0	2,345,000

Large Town Sanitation (>50,000 in 2025 but not SMAs) — **Incremental Investment Requirements - Capital Costs**

Option	Description	Unit Capital Cost Tk/capita	2000	2005	2010	2025	2050
	Total population		9,780,000	12,220,000	14,910,000	24,980,000	46,900,000
				TkM	**TkM**	**TkM**	**TkM**
N4.1	Facility for Night-soil Collection and Treatment	790		0	0	0	0
N4.2.1	Standard Single Pit Latrine	200		782	0	0	0
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility	426		312	1,385	1,287	803
N4.3	Large Septic Tank + Soakaway	872		0	0	0	0
N4.4	Community Level Sanitation Facility	1740		2,109	1,765	455	0
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)	2240		0	0	8,393	17,871
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)	1800		0	0	8,993	24,775
N4.7.5	Main Sewerage System - Towns	5390		0	0	0	12,640
	Total Incremental Capital Cost			**3,203**	**3,150**	**19,128**	**56,089**
	Total Cumulative Capital Cost			**3,203**	**6,353**	**25,481**	**81,570**

Small Town Sanitation (<50,000 in 2025) — **Coverage Targets (%)**

Option	Description	Total Annual Cost (Tk/capita)	2000	2005	2010	2025	2050
	Total population		4,190,000	5,240,000	6,390,000	10,710,000	20,100,000
N4.1	Facility for Night-soil Collection and Treatment	109	0%	0%	0%	0%	0%
N4.2.1	Standard Single Pit Latrine	45	50%	75%	65%	40%	10%
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility	80	5%	10%	25%	40%	40%
N4.3	Large Septic Tank + Soakaway	117	0%	0%	0%	0%	0%
N4.4	Community Level Sanitation Facility	370	0%	5%	10%	5%	2%
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)	140	0%	0%	0%	5%	18%
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)	130	0%	0%	0%	10%	30%
			55%	**90%**	**100%**	**100%**	**100%**

Small Town Sanitation (<50,000 in 2025) — **Coverage Targets - Number of Population**

Option	Description	2000	2005	2010	2025	2050
	Total population	4,190,000	5,240,000	6,390,000	10,710,000	20,100,000
		0	0	0	0	0
N4.1	Facility for Night-soil Collection and Treatment	0	0	0	0	0
N4.2.1	Standard Single Pit Latrine	2,095,000	3,930,000	4,153,500	4,284,000	2,010,000
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility	209,500	524,000	1,597,500	4,284,000	8,040,000
N4.3	Large Septic Tank + Soakaway	0	0	0	0	0
N4.4	Community Level Sanitation Facility	0	262,000	639,000	535,500	402,000
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)	0	0	0	535,500	3,618,000
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)	0	0	0	1,071,000	6,030,000
		2,304,500	4,716,000	6,390,000	10,710,000	20,100,000

Small Town Sanitation (<50,000 in 2025) — **Incremental Coverage Targets - Number of Population**

Option	Description	2000	2005	2010	2025	2050
	Total population	4,190,000	104,800,000	107,100,000	107,700,000	88,000,000
			0	0	0	0
N4.1	Facility for Night-soil Collection and Treatment		0	0	0	0
N4.2.1	Standard Single Pit Latrine		1,835,000	223,500	130,500	-2,274,000
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility		314,500	1,073,500	2,686,500	3,756,000
N4.3	Large Septic Tank + Soakaway		0	0	0	0
N4.4	Community Level Sanitation Facility		262,000	377,000	-103,500	-133,500
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)		0	0	535,500	3,082,500
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)		0	0	1,071,000	4,959,000
			2,411,500	1,674,000	4,320,000	9,390,000

Small Town Sanitation (<50,000 in 2025) — **Incremental Investment Requirements - Number of Population**

Option	Description	2000	2005	2010	2025	2050
	Total population	4,190,000	5,240,000	6,390,000	10,710,000	20,100,000
			0	0	0	0
N4.1	Facility for Night-soil Collection and Treatment		0	0	0	0
N4.2.1	Standard Single Pit Latrine		1,835,000	223,500	130,500	0
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility		314,500	1,073,500	2,686,500	3,756,000
N4.3	Large Septic Tank + Soakaway		0	0	0	0
N4.4	Community Level Sanitation Facility		262,000	377,000	0	0
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)		0	0	535,500	3,082,500
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)		0	0	1,071,000	4,959,000
			2,411,500	1,674,000	4,423,500	11,797,500

Small Town Sanitation (<50,000 in 2025) — **Incremental Investment Requirements - Capital Costs**

Option	Description	Unit Capital Cost Tk/capita	2000	2005	2010	2025	2050
	Total population		4,190,000	5,240,000	6,390,000	10,710,000	20,100,000
				TkM	**TkM**	**TkM**	**TkM**
N4.1	Facility for Night-soil Collection and Treatment	790		0	0	0	0
N4.2.1	Standard Single Pit Latrine	200		367	45	26	0
N4.2.2	Household Latrine with Septic Tank and Soakaway Facility	426		134	457	1,144	1,600
N4.3	Large Septic Tank + Soakaway	872		0	0	0	0
N4.4	Community Level Sanitation Facility	1740		456	656	0	0
N4.5.1	Small Bore Sewerage System with Street-Level Septic Tanks (Urban)	2240		0	0	1,200	6,905
N4.6.1	Small Bore Sewerage System with Household Septic Tanks (Urban)	1800		0	0	1,928	8,926
	Total Incremental Capital Cost			**957**	**1,158**	**4,298**	**17,431**
	Total Cumulative Capital Cost			**957**	**2,115**	**6,413**	**23,844**