PUBLIC TOILET IN KATHMANDU AND PATAN MUNICIPALITIES

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Introduction and Historical Background:

Public toilets play an important role in a city's sanitary condition, public health and beauty. They form an important component of a city's public places where peoples'

mobility is much and population density is high.

So far as the history of public toilets are concerned, it is not so old as, the cities in Kathmandu Valley. Two or three decades back, there was a commonly used phrase in Newari language in Kathmandu Valley - "Kyabay wanegu" which literally means 'going to the backyard garden'. The original people of Kathmandu and Patan used this phrase to perform their daily excretory activities and they were used to use their daily excretory activities and they were used to use their backyard gardens for toilet purpose behind the trees and bushes. The concept of bathrooms as a vital functional part of a house seems to have been left out in the old constructions. Most of the houses built as recently as three to four decades ago were completely devoid of bathrooms. Nearness to open fields seem to have served the purpose. (Manandhar, 1979) Thus the good impression created by Kathmandu with its art and architecture is only half the story. Colonel Kirkpatrick noted in 1811 that: "the streets are excessively narrow, and nearly as filthy as those of Benaras" (Kirkpatrick, 1975) Ambrose H. Oldfield, around 1824, describes the conditions of Kathmandu Valley much more vividly. In his words: "There is an utter absence in all the cities of any system, of drainage, nearly stagnant gutters on each side of the street, running immediately below the house fronts do the duty of sewers and into them most of the filth and refuse of the adjacent buildings find their way" (Oldfield, 1979). In 1877, Daniel Wright wrote:" In short, from a sanitary piont of view, Kathmandu may be said to be built on a dunghill in the middle of latrines" (Wright, 1972) Henry Ballantine, a distinguished visitor around 1896 seemed equally incensed by Kathmandu's sanitary conditions. In his words; ".... a city which has dungfills for its foundations, stagnant pools for ornamental lakes, whose streets do duty for drains and latrines,.....". (Ballantine, 1896) Considering the acuteness of the problem, many public toilets were established in various parts of the core area of Kathmandu city during the Rana regime. But almost all of them were closed down due to bad sanitary conditions and their inappropriate locations. In course of time due to tremendous growth of the population, need for public toilets have been felt very much. Because people began to scatter their urine and faeces in rivers street corners and lanes. The general scene of river, lanes and streets in Kathmandu and Lalitpur city areas tell the same story daily. Lack of public toilets and their insufficient services provided by the concerned authorities and the absence of efforts to educate the people are responsible for this miserable situation. Indifference of the people and bad habits developed through ages are equally responsible. Considering the problems the concerned municipalities, Solid Waste Management and Resource Mobilization Committee and some ward committees have constructed a few public toilets in Kathmandu and Patan municipality areas. But these public toilets are insufficient in number and inefficient in providing necessary services. Much has yet to be done in this field. Despite the obviousness of the problem no study has ever been made. So this is the first attempt to study the general status of the public toilets in Kathmandu and Patan municipality areas and to find out ways for their betterment.

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Justification of the Study Area

Public toilets are one of the basic necessities of public life in an urban area. Thus public toilets of Kathmandu and Patan municipalities are taken for study in this paper. Both of these municipalities are growing in a haphazard manner due to uncontrolled population growth and rapid urban sprawl. But these municipalities are far behind to fufill the growing demand of public toilets. The present study pertaining to various aspects of public toilets in these two municipality areas will reveal the prevailing situations of the public toilets. No doubt the findings and recommendation of this study will be very helpful for proper management and future planning and policy measures of public toilets for the concerned authorities.

Objectives of the Study

The present study is an attempt to find out the prevailing conditions of the public toilets and to indentify ways for improvement of public toilets in Kathmandu and Patan city areas. The specific objectives of this study can be broadly categorised as following:

(i) To find out the prevailing conditions of public toilets.

(ii) To examine the present management practices of public toilets.

(iii) to indentify the socio - economic and environmental impact of public toilets, and

(iv) To indentify ways for improvement of public toilets.

Research Methodology

To fulfill the basic objectives of the study certain methodology has been adopted

which has been organised in the following headings.

- (i) Sources of data and informations: The present study is based on primary data. Data were collected by the field survey. The most imtortant primary data and informatrion were collected by observation of public toilets and interviewing sweepers and cleaners working in them and concerned authorities such as Kathmandu and Patan municipalities, Solid Waste Management and Resource Mobilization Committee (SWMRMC), Sweepers' Welfare Association etc.
- (ii) Methods of data collection:— For collecting data, first of all two sets of questionnaires were prepared. Among them one questionnaire was prepared to interview the concerned authorities of public toilets and the other was aimed to interview the people of surrounding housedolds of public toilets. A third set of observation cum questionnire form was also prepared to observe the existing situation of public toilets and interview the cleaners working in the toilets. Data and informations from them were collected by observation and interview during the field visits with the help of respective set of questionnaire prepared beforehand.

(iii) Methods of data analysis: This is an exploratory research study. The analysis of data is done descriptively. The primry data and informations collected are tabulated for

easier presentation and analysis.

(iv) Limitations of the study: Some of the public toilets in Kathmandu city area could not be visited due to resource constrain. So detail observational study of these toilets (not visited) could not be made. On the other hand, no specific parameters of scientific tools and methods were used to indentify the socio- economic and environmental impact of public toilets except visual observation and answers of the respondents. NGOs and ward committees working in this field could not be contacted at all. The number of users per day was calculated approximately from the numbers counted within time span of 10 minutes during the researcher's visit.

Data Analysis and Presentation

Distribution of toilets: The distribution pattern of Public toilets in Kathmandu city is shown in the map. There are six public toilets located in and around Tundikhel, open theatre, Bhrikuti Mandap and Jamal at the ward number 31 of Kathmandu municipality.

There are one each in Chabahil (ward no. 7), Kalimati (ward no.12), Bhoogol park (ward no.23) and near Bishnumati river in ward no. 19. Recently a new public toilet has been opened at the Gongabun bus park in ward no. 29 of Kathmandu municipality. In Patan municipality, there are only two mentionable public toilets. One of them is located at Patan Dhoka (ward no. 21) and the other at Chhyabahal (ward no. 21)

Capacity and number of users per day in the existing public toilets: From the brief statement on general distribution of public toilets, it is clearly seen that number of public toilets are inadequate and there are many areas where public toilets should be established. The capacity and the number of users per day of the public toilets located at different places of Kathmandu and Patan cities are given below:

Table 1
Capacity and number of users per day

Toilet	Capacity		city		No. of users/day	
	Gents		Ladies			
location	Urinal	WC	Urinal	WC	Gents	Ladies
Bhoogol Park	8	3	5	2	300	15
Gongabun bus park	18	9	-	8	9000	2800
Near Bir hospital	6	7	-	2	400	50
Jamal	7	7	-	3	600	100
Tundikhel (near GPO)	4	5	2	2	400	50
Tundikhel (near NEA)	4	4	_	2	1700	600
Kathmandu (ward no.19)	-	4 -	-	-	100	-
Patan Dhoka	4	7	-	4	100	20
Chhyabahal (near Hotel Oasis)		13	-	-	100	

Source: Field survey, october 1994.

From the above table, it reveals that the most used public toilets are located in Gongabun and Ratna park Tundikhel (near Nepal Electricity Athority office). The number of women using public toilets are much more limited than that of men. This may be due to the lesser outdoor mobility of women. According to the sweepers working in the public toilets these toilets (except Gongabun buspark) are most crowded during office hour rush periods of morning and evening. The Gongabun buspark toilet is mostly used during the peak hours of 6.00 A.M. to 10.00 A.M. and 3.00 P.M. to 4.30 P.M.

Santiary and Physical Conditions of Public Toilets: Although the sweepers engaged in cleaning public toilets clean them at least two of three times daily with water, the sanitary condition and physical outlook of most of them are dirty and covered with fifth.

Table 2
Water consumption and number of cleanings per day in P.T.s

Location of P.T.s	Water (consumption in liter/day)	Water source	General cleaning/day and use of deodoriser and powder
Bhoogol Park	2000	Tanker	3 times (phenyl and Vim powder used every morning)
Gongabun	3500	Tanker & pipeline	frequent cleaning wherever needed)
Ratnapark (near Bir hospital)	600	Tanker	2 or 3 times (use of powder thrice a week)
Jamal	2000	tanker	4 times (powder and phenyl is used twice a week)
Tundikhel near GPO	2000	tanker	3 times (powder and chemicals used once a week)
Tundikhel near NEA	2000	tanker	2 times (use of powder once a week)
Patandhoka	2000	tanker	3 times (use of powder and deodorise once a day)
Chhyabahal	100	local spring	3 times

Source: Field survey, October 1994.

The physical and sanitary condition of public toilets directly depend upon the number of users, attitude of users and cleaning works. The Bhoogol Park toilet has been found to be excellent from the sanitary point of view. The recently opened Gongabun buspark toilet is also in a good condition. But the public toilets around Tundikhel have been found to be bad in both physical and sanitary conditions. Most of them have missing taps, missing mirror and broken tiles, layers of filth accumulated on the ground and walls. Lack of activeness of cleaning workers and misconduct of users seem to be the major causes of bad sanitary and physical condition of public toilets. Water availability is sufficient (except the toilet of Chhyabahal in Lalitpur municipality) in all the public toilets visited. At Chhyabahal there is a stonetap (dhungedhara) nearby the toilet. But local people even do not let the sweepers get a bucket of water from the stone tap. The local people living around the public toilet prefer to live in a filthy atmosphere. As they do not like the sweeper (Podeys) touching their source of water. Most of the public toilets get water from tankers provided by SWMRMC. SWMRMC distributes water to public toilets from Bagmati river after necessary treatment. SWMRMC owned public toilets do not have to pay for tanker water supply.

Management Practices of Public Toilets :-

Most public toilets in Kathmandu and Patan city areas have been constructed and owned by local municipalities and SWMRMC. But they could not manage to run it smoothly and handed over their management systems in the hands of contractors. Interestingly all the contractors belong to Podey¹ community. People of Podey community are involved as sanitary workers of municipalities and SWMRMC. Podeys, engaged in public sanitation work have formed a body named Sweepers' Welfare Fund (SWF). Table 3 shows the general management system of public toilets in Kathmandu and Patan municipalities.

Podeys are lower class members of Newar community, traditionally engaged in cleaning and Sreet Sweeping works.

Table 3 Management system of public toilets

P.T.'s location	Owner	Contractor	amount / month	No. of workers engaged (man power)	Monthly salary of a worker
Bhoogol park	Kathmandu municipality	Individual	Rs. 2625	5	
Gongabu	(+	SWF.	-	25	Rs. 1325
Bhrikuti mandap	++	Local retail trade union	-	-	-
Kalimati		Individual	N.A.	N.A.	N.A.
Tundikhel near Bir Hospital	SWMRMC	Individual	Rs. 20500	2.	Rs. 1200
Jamal	77	,	Rs. 5400	3	-
Tundikhel Near GPO	7	,	Rs. 6000	2	Rs. 1000 with meals
Tundikhel near NEA	TI TI	: `` II	Rs.10800	2	-
Patan dhoka	11		Rs. 2000	2	Rs.1200
Chhyabahal, Patan	+1	-	Rs.700	1	Rs. 1100
Ward no. 19, Kanga Ward committee	-	-		-	-

Source: Field survey, October 1994.

Contractors are responsible for daily cleaning of public toilets, they have undertaken. But most of them have not performed their duty honestly except the contractor of Bhoogol park and Gongabun bus park public toilets. The Gongabun bus park public toilet contractor does not have to pay any amount to the owner of the toilet - Kathmandu municipality. Rather the contractor gets Rs. 30000 per month from Kathmandu municipality for various expenditures such as sanitary (cleaning) powders, soaps necessary repairments, salary for the workers etc. Besides that all the remaining amount and the total profit goes to the Sweepers Welfare Found (SWF). Kathmandu municipality has handed over Bhrikuti Mandap public toilet to the retail shopkeeper's union of Bhrikuti Mandap due to the difficulties in running it smoothly and raising service charges from the users-mainly local shop keepers. Contractors and their family members are engaged at cleaning works in Ratnapark (near NEA), Jamal, Bhoogol park public toilets. So they do not have to spend on salary for workers.

Properly located, well functioning and clean public toilets are also a good sources of income. The income generated from a public toilet is a good incentive for proper management of them. This fact has been proven by the Gongabun bus park public toilet which earns more than Rs. 4000 per day (figure calculated from the number of users/day). Usually a public toilet contractor can charge 25 paisa for urinating and Rs. 1.00 for the other purpose per person. But only one out of three persons pays for the use of public toilets—it is learnt from the contractors of public toilets in Kathmandu and Lalitpur municipalities. Even then they collect a good sum of money. Table 4 shows the incomes of different public toilets in Kathmandu and Lalitpur municipalities.

Table 4
Income of the public toilets

Location of public toilets	Incomes per day (in Rupees)		
Bhoogol Park	300		
Gongabun bus Park	4000		
Tundikhel (near Bir hostital)	600		
Jamal	400		
Tudikhel (near GPO)	300		
Tundikhel (near NEA)	500		
Patan Dhoka	100		
Chhyabahal	20		

Source: Field Survey, October 1994.

Drainage system and Socio-economic and Environmental Impact of Public Toilets

On the whole the drainage and sewage system of Kathmandu and Patan urban areas are very bad. Well managed drainage and sewage systems are necessary for proper functioning of public toilets in Kathmandu and Patan cities.

As most of the public toilets are built in congested urban areas with a very high land value, they don't have a septic tank and public toilets are connected to the underground sewage lines. But nobody knows the exact network of these underground sewage systems. Often these sewage networks come across rusted pipelines of drinking water and sewage flow enter into the drinking water pipes. In that situation any body can guess how horrible the state of public health will be in these city areas. People have to spend much time and money on fossil fuels (kerosene, cooking gas) and firewood to boil drinking water to be safe from frequently occuring epidemics of cholera,typhoid, and dysentry etc. Uncontrolled tree felling for meeting the urban demand have already created many environmental probems in and around Kathmandu Valley. And burning of fossil fuels and firewood is itself a hazard to the environment. Further the tourist industry of Nepal, one of the major foreign currency earning businesses, has been negatively affected by the degrading environment, the miserable condition of our public toilets and sewage lines.

The only public toilet with a septic tank is located at Gongabun bus park. Septic tanks are much more safe from sanitary and environmental view point. In addition to that bio-

gas can be generated from them. So septic tanks are economically beneficial too.

Due to the lack of proper cleaning and sanitation measures public toilets are the homes of flies, mosquitoes, and other vectors and most public toilets in Kathmandu and Patan cities pollute air around them with filthy smell. Studies have shown that people inhaling such air become psychologically depressed, mentally unstable and physically sick. This was the main reason for closing the the public toilets constructed during Rana period in core areas of Kathmandu city. Due to the above reason, selection of sites for public toilet construction is creating a big problem. Because local people do not want to have P.T.s near their residential or commercial areas. For the same reason, Kathmandu municipality could spend only Rs 87,362 out of the total budget of Rs. 30,00,000 for public toilet construction in the fiscal year 2049-50. In the fiscal year 2050-51, Kathmandu municipality has allocated Rs. 20,000,00 for P.T. construction as well as their maintenance and the municipality has not been able to allocate moneyfor the above mentioned purposes for the fiscal year 2050-52, yet.

Some public toilets' sewage lines are directly connected to rivers polluting the river water. For example, the sewage lines of the P.T.s in ward numer 19, and Kalimati in

Kathmandu municipality are linked to the Bishnumati river.

Suggestions and Concluding Remarks

P.T.s are one the basic necessites of urban life. Proper location, good management and sanitary facilities of P.T.s not only promote general public health and city's beauty but are also economically beneficial. Till now sweepers associated with SWF (Sweepers Welfare Fund) have monopoly in public toilet business (see Table 3 and 4). Municipalities and SWMRMC can make a big profit if the present P.T.s could be well managed and run under themeselves. Study should be carried on the possibility of generating bio-gas and P.T.s to be constructed in future should be designed for producing bio- gas and organic manure.

For efficient management of the existing P.T.s following measures should be taken as

soon as possible.

(i) Construction of comprehensive underground sewage system and a good street drainage,

(ii) Proper education to people for encouraging the use of P.T.s and eradicating bad

habits. Local NGOs can do a lot in this connection.

(iii) Formulation of rules and regulations and their strict implementation. Heavy fines should be charged for violations of these rules and regulations.

Daily regular cleaning and supervision by the concerned authorities.

(v) Supply of sufficient water in P.T.s and provision of harvesting rain water in P.T.s.

(vi) Signal boards indicating the location of P.T.s should be placed at proper places. The existing number of public toilets in Kathmandu and Patan municipalities are not enough for the growing urban population. Therefore it is necessary to construct more P.T.s. in proper places such as Kalanki Chowk, Dillibazar Charkhal Adda, Kathmandu Durbar Squre, Thamel, Lazimpat, Balazu ring road, Tripureswore, Balkhu Ring Road etc. Kupondole and Jawalakhel area of Lalitpur municipality need public toilets urgently, in addition to the two public toilets, one each in Mangalbazar and Lagankhel, currently under construction.

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