

See Hindi Version of [Query](#) (Size: 41.28 KB) and [Summary](#) (Size: 87.06 KB)



Environment

Water Community



Decentralization Community



Solution Exchange for the Water Community **Solution Exchange for the Decentralization Community** **Consolidated Reply**

Query: Conservancy Staff and Municipal Sanitation-Experiences; Advice

Compiled by Pankaj Kumar S. and Alok Srivastava, Resource Persons and Ramya Gopalan and Jeevan Mohanty, Research Associates
14 February 2007

From Aparna Das, UNDP, New Delhi
Posted 11 January 2007

Under the Jawaharlal Nehru National Urban Renewal Mission, large investments are to be made for modernizing and upgrading sewage and solid waste management facilities in cities (See <http://www.urbanindia.nic.in/moud/programme/ud/jnnurm.htm> for details).

Within a municipality, an average of 50-60% staff members are engaged in conservancy (cleaning solid waste infrastructure) activities. Traditionally there is much politics associated with their recruitment and they are never part of the mainstream municipal staff. There is also a general feeling that since they “eat away” a large proportion of municipal resources, it is advisable to reduce their numbers. Consequently, many municipalities have begun outsourcing these services.

A comparative look at the socio-economic status of the conservancy staff and mainstream staff members reflect a stark contrast. Most conservancy staff generally belongs to a specific set of communities known traditionally for conservancy work, are heavily into debt and affected by various diseases. Additionally, even in big cities, conservancy staff continues to take up solid waste management in an undignified manner, using primitive tools and implements, which expose them to health hazards on a regular basis. Manual scavenging also continues to be practiced even in states where officially it is claimed to have been abolished.

However, current discussions on how the Municipal reforms are to be implemented concentrate on technological and other demand side issues and completely ignore the concerns related to staff at the lowest level engaged in taking up solid waste management services. In the above context, I request members to kindly share information and experiences on the following:

- The status of conservancy staff in Municipalities in various parts of India
- The health hazards and diseases that arise due to exposure to hazardous wastes and the precautions that the staff need to take to protect themselves
- Recommended mechanisms for incorporating health protection and economic rehabilitation of conservancy staff and their dependents in the Municipal Reform process.

Members may also share innovations made in related areas to dignify the profession of conservancy staff.

Responses were received with thanks from

1. [Anurag](#), Centre for Budget and Governance Accountability, New Delhi
2. [Arunabha Majumder](#), All India Institute of Hygiene and Public Health (AIHPH) and Jadavpur University, Kolkata
3. [Subodh Kumar](#), Udyog Bharati, Ghaziabad
4. [Sumita Ganguly](#), UNICEF, New Delhi
5. [Jyotsna Bapat](#), Consultant, New Delhi
6. [Digbijoy Bhowmik](#), GoI-UNDP Project 'National Strategy for Urban Poor,' New Delhi
7. [Biraj Swain](#), WaterAid India, New Delhi
8. [Kris Dev](#), Transparency and Accountability Network, New Delhi
9. [Balakrishnan Elangovan](#), SMEC India Pvt. Ltd., New Delhi
10. [A. Prabakaran](#), Public Action, New Delhi
11. [D. S. Dhapola](#), Uttaranchal Academy of Administration, Nainital
12. [N. K. Agarwal](#), Geological Survey of India (G.S.I.), Dehradun
13. [A. K. Paikaray](#), Mahavir Yubak Sangh, Orissa
14. [V. Kurian Baby](#), Socio-Economic Unit Foundation (SEUF), Kerala
15. [Saugat Ganguly](#), Gamana, Hyderabad
16. [Alok Pandey](#), PRIA, Jaipur
17. K. Rajasekharan, Kerala Institute of Local Administration, Mulagunnathukavu, Thrissur
([Response 1](#); [Response 2](#))
18. [Prabhjot Sodhi](#), UNDP GEF Small Grants Program (SGP), Centre for Environment Education (CEE), New Delhi
19. [Partha Das](#), UNDP, Bhubaneswar,
20. [Ajit Seshadri](#), The Vigyan Vijay Foundation, New Delhi
21. [Bharati Joshi](#), Ashoka-Innovators for the Public, Jaipur
22. [Rahul Banerjee](#), Aarohini Trust, Indore
23. [Kumar Saket](#), Center for Urban and Regional Excellence, Agra
24. [Sujit Choudhury](#), PAN Network Pvt. Ltd., Kolkata
25. [Radhika K. Jung](#), UNIFEM, New Delhi
26. [R. Sreedhar](#), Environics Trust, New Delhi
27. [S. Ramesh Sakthivel](#), WES-Net India, New Delhi
28. [Surekha Sule](#), National Institute of Rural Development, Hyderabad
29. [C. Tamilselvan](#), Sampurna Arakattalai, Thanjavur
30. [D. Rayanna](#), Andhra Pradesh School Health Association, Secunderabad
31. [Ravinder Nath](#), Indian Mountaineering Foundation, New Delhi
32. [Harshad Gandhi](#), Excel Industries Ltd., Mumbai
33. [Alok Srivastava](#), UNDP, New Delhi

Further contributions are welcome!

Summary of Responses

The query discussed issues related to the socio-economic status and occupation-generated diseases among **conservancy workers** (CWs), and members gave suggestions for their rehabilitation. Respondents also analysed systemic models in revenue and waste collection in Urban Local Bodies (ULBs) and suggested ways of integrating concerns of CWs into national policies.

Members pointed out that this issue is often missing from water and sanitation (watsan) discourses, and appreciated Solution Exchange for discussing it. They emphasized that CWs work under the most deplorable conditions, often have inadequate protection from waste-related health hazards, and lack sanitation facilities for themselves. Respondents noted that as CWs still use primitive equipment, they are constantly exposed to solid waste – and sometimes biomedical and hazardous waste – that cause skin infections, diarrhoea, enteric fever, hepatitis, tuberculosis, and respiratory infections. Additionally, since CWs generally belong to the most marginalised castes and communities, they are also socially excluded, and often end up passing their occupation and habits to the next generation. Moreover, the **physical-psychological stress to CWs** and the loss of human dignity associated with the occupation creates a sense of low self-esteem, leading some CWs towards substance abuse, especially alcoholism. Other than CWs in the formal sector, discussants also reported that lakhs of workers in the informal sector work as manual scavengers and rag pickers. Manual scavenging, though eradicated officially, continues in many parts of India. A large number of children also worked as rag pickers.

Respondents stressed that the **rehabilitation of CWs** would essentially consist of improving their working conditions and productivity; building their capacity and awareness about hazards; periodic health check-ups, improved health care, supply and use of protective gears; and selection of appropriate technical options for waste handling. They shared experiences from various parts of India and suggested a **mix of measures** to enhance the dignity and working environment of CWs. For example, the **Haveri** municipality introduced following measures to rehabilitate CWs:

- Better work conditions- leave, mustering, tea-snacks, toilet-bath facilities, I-cards.
- Equipment - ergonomic and protective gear (gloves, boots, helmets), carts, shovels
- Medical care - annual check-up, free treatment, de-addiction (if needed), yoga
- Integration with mainstream staff - through one uniform and other cultural events
- Facilities– low cost housing, scholarships for meritorious children of CWs

Among other examples members shared was the [Total Sanitation Campaign, Tamil Nadu](#), which provided gear and equipment to CWs to collect waste. It also streamlined segregation at household level and generated revenue for CWs by subsequent sorting and sale of waste. Similarly, in [Andhra Pradesh](#), training and capacity building has made CWs feel more dignified about their profession, while the [Suryapet Municipality](#) educated citizens for segregating and systematically disposing wastes. Likewise, in [Delhi](#), the Municipal Corporation and residents of some colonies have collaborated for decentralised solid waste management, and a [slum in Delhi](#) independently employs CWs to collect waste. In another case, respondents reported that a participatory, [process-based waste collection project](#) by UNDP-Global Environment Facility in multiple towns is organising rag pickers and CWs into institutions. Members also shared how the Kudumbshree project from [Kerala](#) organised women's groups, provided them auto-rickshaws and protective gear for waste collection and crafted a multi-pronged but business-centric programme. In this background, the group cited a recent High Court judgement in [Gujarat](#) following deaths of some CWs, where the court ordered rescue precautions, protective gears and personal accident insurance for CWs.

Reporting about **Government programmes** for the rehabilitation of CWs, members mentioned the "[Self Employment Scheme for Rehabilitation of Manual Scavengers](#)" and the "[National Scheme for Liberation and Rehabilitation of Scavengers and their Dependents](#)". They also shared information about the [National Safai Karmachari Finance and Development Corporation](#). In the context of CWs, the group elaborated on the **waste management scenario in Urban Local Bodies** (ULBs). Respondents lamented that despite spending crores on waste management and associated infrastructure, safe disposal continues to be a major problem in most towns and cities. Several ULBs have put restrictions on recruitments, leading to greater work

pressure on existing staff. Some ULBs (such as **Delhi**) have tried [outsourcing waste collection](#) to private companies but could not justify the expense. Respondents reported that CWs in the informal sector far outnumbered those in formal sector, and contractors employ them at lower salaries and lower job security. They cautioned that privatising conservancy work should not allow ULBs to relinquish their responsibility to ensure proper working conditions for CWs. Participants cited a [Public Interest Litigation](#) (PIL) against the Mumbai Municipal Corporation in 1999, where the High Court ordered regularisation of informal CWs, and provision of hygiene protection measures.

Additionally, discussants suggested **better approaches** to waste management for ULBs. Firstly, members emphasised segregation of waste at the household level into biodegradable, non-biodegradable and recyclable waste. A pilot project in [Thiruvananthapuram](#) demonstrated that modern methods and minimum handling of solid waste results in lower health risks for CWs. Respondents also mentioned an interesting initiative in [Hyderabad](#), where the municipality provides a free tricycle to any interested Resident Welfare Associations (RWA), which employs an individual for waste collection. In another example, [Panchayats in Maharashtra](#) provide exemption from house tax to households handing over garbage at a collection point. In the long run, respondents advised changing the attitudes of citizens to sensitise them against throwing garbage in public places and to take up better waste management. They also advised decentralised waste treatment and grey/ black water separation at household or colony level as a sustainable solution to waste disposal and to decrease the workload of CWs as well.

The discussion also touched upon incorporating the issue of CW into the programmes of the Jawaharlal Nehru National Urban Renewable Mission (JNNURM). Members felt that currently, the reforms have been stronger on the economic rather than social front and could improve the situation of the CWs in a number of ways. For example, the JNNURM could finance modern equipment to ensure better work conditions for CWs, and could address the **systemic problems** in ULBs by focusing both on systems of waste collection as well as on people collecting waste. Targeted innovations identified by members included:

- Systems-based approach, with localized disposal by RWAs and Self-Help Groups (SHGs) to supplement the macro process by CWs
- Brand merchandising of cash-out-of-trash, enhancing technology and image of garbage management as a profitable business
- Build capacities of CWs on a rolling basis, so that low skill workers move towards higher-skill and self-employment option

Additionally, members suggested that JNNURM could help ULBs to address inadequate revenue inflow by organising safe and reliable waste collection programmes linked to a revenue-expenditure model. Revenue from sale of recyclable waste could, for example, be used to provide better economic and work conditions for CWs. Likewise, they suggested using other innovative technologies like [bio-composting](#) and Sulabh leach pit contextually for decentralised on-site management of solid waste.

The discussion brought to life the silent but crucial role played by conservancy workers in society, and outlined the sub-human conditions in which they eke out livelihoods. Members emphasised the urgent necessity of municipal reforms to address occupational and psychological problems of CWs. This will also encourage creation of environmentally sustainable and innovative models of waste governance in India.

Comparative Experiences

Tamil Nadu

Total Sanitation Campaign in Tiruchirapalli and Vellore Districts (from [Sumita Ganguly](#), UNICEF, New Delhi)

Workers are provided shoes, gloves, masks and in some cases even overalls. Carts are also provided for collection. Households segregate waste at the source of collection. The day's collection is brought to a properly chosen place outside the habitation where it is sorted into organic, recyclables etc in simple ventilated sheds with shelves constructed with bamboo mainly. The income earned from sorting and further use contributes towards payment of workers. Read [more](#)

New Delhi

From [Jyotsna Bapat](#), Consultant, New Delhi

Use of PIL to Resolve Accountability Issue

Residents of the East Delhi Slums of West Vinod Nagar complained of conservancy staff although employed by Municipal Corporation of Delhi (MCD), was not ready to clean their drains or collect domestic waste without being paid on a daily basis. Residents also complained that in spite of them paying for the service the work was never satisfactory. Therefore, the local NGO had to resort to PIL as a means to ensure some accountability.

Direct Employment of Conservancy Staff

Another slum resolved the issue of accountability of conservancy staff employed by employing a person directly to meet their need for conservancy and paying him/ her for the job on a daily basis. This therefore ensured his/ her accountability to the slum residents and the lanes were much cleaner in comparison to the East Delhi Slums of West Vinod Nagar.

From [Digbijoy Bhowmik](#), GoI - UNDP Project 'National Strategy for Urban Poor,' New Delhi

Outsourcing of SWM Process

Ten years ago, Nirula's the fast food chain was commissioned to carry out door-to-door collection of solid waste in select areas of Delhi, under the MCD. The arrangement worked fine for about six months, and then was simply discontinued, as the Department could not justify the outsourcing process against a hugely existing staff budget component. The same situation also prevailed in Chennai and Pune, where the exercise was at least sporadically repeated.

Community Based SWM Program (from [Digbijoy Bhowmik](#), GoI - UNDP Project 'National Strategy for Urban Poor', New Delhi and [Rahul Banerjee](#), Aarohini Trust, Indore)

Under this programme, [Toxics Link \(TL\)](#) was working with households of Defence Colony A- Block. Initially TL covered 450 households for the community based decentralised composting launched in June 2005. Communities and Waste team of TL brought together Residents Welfare Association (RWA), residents, waste collectors and MCD sanitation staff for implementing the program. This enabled them to overlook internal differences and encouraged them to work together towards a long-term sustainable development. Read [more](#)

Kerala

Clean Kerala Campaign (from [Digbijoy Bhowmik](#), GoI - UNDP Project 'National Strategy for Urban Poor', New Delhi)

Women's groups, supported by the Kudumbashree State Poverty Eradication Mission were organised into units, assigned to areas, and entrusted an almost end-to-end solution in SWM process. The status report shows 62 units operational in the Campaign with 10-12 members in each who are provided a specialised auto-rickshaw to carry garbage. Unique identifying apparel, safety gear and standardisation in service costs provide proactive branding to the process. Read [more](#)

Segregation of Garbage at Source in Thiruvananthapuram (from K. Rajasekharan, Kerala Institute of Local administration, Mulagunnathukavu, Thrissur; [response 1](#) and [response 2](#))

The City Corporation launched this pilot project involving segregation at source, and collection of solid waste from households and commercial institutions. Uniformed sanitation workers were drawn from SHGs and provided with protective gear. Households are supplied with plastic buckets to store biodegradable (green bucket) and non-degradable (white bucket) materials which is collected everyday and once a week respectively and taken to a treatment plant in garbage tipper trucks.

Gujarat

Judicial Activism to Improve the Status of Sewer Workers in Ahmedabad (from [Biraj Swain](#), *WaterAid India, New Delhi*)

In mid 2005, 18 young sewer line workers died in Ahmedabad, Surat & Baroda while on duty. Taking cognizance of these deaths, and through the efforts of [KSSM](#), the Gujarat High Court issued suo moto orders to the Urban Development department of Gujarat ordering no worker to get into sewer lines. It also sanctioned Rs. 3 crore to procure protective gear and Rs 2 lakhs as ex-gratia payment for all 18 demised workers and 50,000/ as personal accident insurance for all the workers on the municipality rolls.

Andhra Pradesh

From [Saugat Ganguly](#), *Gamana, Hyderabad*

Incentive System to Engage Household in Waste Disposal in Hyderabad

Garbage collection is done through Safai Karmacharis/sanitation workers, mostly employed by contractors. Under an initiative taken by the municipality, any colony or Resident Welfare Association, which comes forward to take up door-to-door garbage collection, receives a tricycle free of cost. The Association then engages a person to use it to collect garbage from houses every morning, each paying Rs. 10 to Rs. 20 every month to him/her for his/her livelihood.

Systematic Waste Disposal through Public Participation, Suryapet Municipality

Here, the municipality first educated the citizens by which they segregate household waste into organic and recyclable and dispose it through different coloured bins. The organic waste is composted and the rest recycled. This eliminates the need for any landfill and brings in money for the Municipality, which is used for the benefit of the conservancy staff. Hanging bins are fixed to electric poles, accessible to pedestrians. This system encourages the performance of the conservancy staff.

Andhra Pradesh Urban Services for the Poor (APUSP) (from [D. Rayanna](#), *Andhra Pradesh School Health Association, Secunderabad*)

Under this, the Municipal Administration Department took up a series of training programmes for public Health workers and staff for a number of municipalities as a first time effort. This made them acquire greater job satisfaction and feeling of importance when compared with any other Municipality Officer. As part of the training, the groups share their problems, difficulties and to suggest ways and means to overcome them. Read [more](#).

Madhya Pradesh

Waste Segregation and Disposal, Indore (from [Rahul Banerjee](#), *Aarohini Trust, Indore*)

In the Aarohini Trust Office, all garbage is segregated into biodegradable and non-bio-degradable waste. The bio-degradable-waste is made into compost and is used in their garden. In the absence of any better method at present, the non-bio-degradable stuff is burnt which is mostly plastic. Efforts are also being made to limit the burning of plastic items by reducing its purchase where possible.

Maharashtra

Trade Union of Safai Kamgars, Mumbai (from [Radhika K. Jung](#), *UNIFEM, New Delhi*)

The salary of the conservancy workers of Brihanmumbai Municipal Corporation was less than Rs. 3,000 a month while the regular BMC worker earned Rs. 8,000. The Union filed a PIL in Bombay High Court for regularizing these workers and brought out the deplorable working conditions. The High Court ruled in their favour and now the BMC regularized these workers. The Court ordered redressal steps, consequentially safety gear was provided, and water for washing up made available at worksites. Read [more](#)

House Tax Exemption for Complying Households (from [S. Ramesh Sakhivel](#), WES-Net India, New Delhi)

Panchayats in Maharashtra State exempt households from house tax for handing over garbage at a collection point. This practice worked as an incentive for proper management of the SWM process. By this, since households stand to gain directly, they put in extra efforts to sort and dispose wastes.

Community Based Organic Waste Converter (OWC) (from [Harshad Gandhi](#), Excel Industries Ltd., Mumbai)

Developed by Excel Industries Ltd., this system homogenizes waste with bio-culture & organic media and converts the waste into a coarse powder, making waste free from foul odour; repels flies, rats etc and controls leachate in batch cycle of 15 minutes. The waste thus treated accelerates the composting cycle utilized for increasing urban green cover. This provides a sustainable solution for organic waste treatment at community level eliminating risk of health hazards to conservancy staff handling the waste.

International

Vietnam

Health Strategies for Waste Workers, Khanh Son Landfill (from [Ramya Gopalan](#), Research Associate)

In this Danang landfill poor laborers in response to existing but unreliable municipal SWM system remove recyclable waste materials from municipal waste streams selling it for economic gain. Equipped in most cases with inadequate protective gear, their work exposes them to an array of potential health threats. To identify these, this study investigates the health status of 142 waste pickers, causative factors (socio economic) and possible biases (culture, psychology) to develop strategies that can address the health problems. Read [more](#)

Related Resources

Recommended Organizations

From [Digbijoy Bhowmik](#), GoI - UNDP Project 'National Strategy for Urban Poor', New Delhi

Kudumbashree State Poverty Eradication Mission, Thiruvananthapuram

TC 14/582-1, Nandavanam, Vikas Bhavan P.O. Thiruvananthapuram 695033; Tel.: 0471-2324205, 2323902; Fax: 0471-2324205; kudumbashree@gmail.com; <http://www.kudumbashree.org/>

Supports women's groups as part of the clean Kerala campaign which offers an end-to-end solution in the overall SWP process with 62 units currently in operation

Central Public Health and Environmental Engineering Organisation, New Delhi

Ministry of Urban Development, Nirman Bhawann Maulana Azad Road, New Delhi 110011; Tel.: 91-11- 31-63255; Fax: 91-11-23061446/379; <http://cpheeo.nic.in/>

Technical Wing of the Ministry of Urban Development, GoI, and deals with the matters related to Urban Water Supply and Sanitation Including Solid Waste Management in the Country.

Toxics Link, New Delhi (from [Digbijoy Bhowmik](#), GoI - UNDP Project 'National Strategy for Urban Poor', New Delhi and [Surekha Sule](#), National Institute of Rural Development, Hyderabad)

H2 (Ground Floor), Jungpura Extension, New Delhi 110014; Tel.: 91-11-24328006/24320711; Fax: 91-11-24321747; tldelhi@toxicslink.org; <http://www.toxicslink.org/ovrvw-int.php?prognum=2&intnum=1>

Brings awareness on the environmental impact of SWM technologies, the benefits of community-based SWM, as well as the impacts on traditional and informal sector recycling processes

Kamdar Swasthya Suraksha Mandal (KSSM), Ahmedabad (from [Biraj Swain](#), WaterAid India, New Delhi)

Haushala Prasad Mishra; Opp. Esis General Hospital Gate No. 2, Bapunagar Ahmedabad 380024

Functions partly as a trade union of sewer line workers in Gujarat with the main aim of dignifying the conditions of sewer workers & getting them employment benefits

Tata Institute of Social Sciences (TISS), Mumbai (from [Radhika K. Jung](#), UNIFEM, New Delhi)

Milind Ranade, General Secretary, Dr. Moulisri Vyas/Sailesh, Lecturer, Dr. Beck, HoD- Urban and Rural Community Development; P.O. Box 8313, Deonar, Mumbai 400088; Tel.: 91-22-2556-3289/90/91/92/93/94/95/96; Fax: 91-22-2556-2912; webmaster@tiss.edu; <http://www.tiss.edu/>

Recommended for details on the PIL filed along with KVSS representing sewage workers, Mumbai and also for information on the detailed state wide study on dry latrines undertaken by TISS

National Safai Karamcharis Finance and Development Corporation, New Delhi (from [Bharati Joshi](#), Ashoka-Innovators for the Public, Jaipur)

B-2, 1st Floor, Greater Kailash Enclave Part-II, New Delhi-110048; Tel.: 91-11-29216330/29221331; Fax: 91-11-29222708; nskfdc@indiatimes.com; http://nskfdc.nic.in/awareness_programmes.html

Acts as an apex institution for all round socio economic up-liftment of the Scavengers Safai Karamcharis and their dependents throughout India

Exnora International, Chennai (from [Ajit Seshadri](#), The Vigyan Vijay Foundation, New Delhi)

#20, Giriappa Road, T Nagar, Chennai 600017; Tel.: 91-44-2815-3376/7 or 91-44-2475-9477; Fax: 91-44-4219-3595; exnora@gmail.com or exnoraindia@hotmail.com; <http://www.exnorainternational.org/>

Recommended for innovations in the SWM process

SulabhENVIS Centre, New Delhi (from [Ramya Gopalan](#), Research Associate)

Sulabh Gram, Mahavir Enclave, Palam-Dabri Road, New Delhi 110045; Tel.: 91-11-25058941; Fax: 91-11-25034041/25036122; sulabh@envis.nic.in or mail@sulabhenvi.in;

http://www.sulabhenvi.in/pages/database_detail.asp?id=53

Sulabh has liberated 50,000 scavengers from the demeaning practice of physically cleaning and carrying human excreta by setting up a self sustaining system of community and household toilets.

Recommended Documentation

Total Sanitation Campaign (from [Sumita Ganguly](#), UNICEF, New Delhi)

Department of Drinking Water Supply, Ministry of Rural Development, Government of India; 2004

<http://ddws.nic.in/tsc-nic/html/index.html>

Note discusses the rural sanitation program aimed at ensuring sanitation facilities in rural areas to eradicate the open defecation practice; recommending in particular examples from Tamil Nadu

From [Digbijoy Bhowmik](#), Gol - UNDP Project 'National Strategy for Urban Poor', New Delhi

National Strategy for Urban Poor

Ministry of Housing and Urban Poverty Alleviation, Government of India and UNDP; November 2006

<http://data.undp.org.in/factsheets/hd-ri/NSUP.doc> (Size: 85 KB)

Would provide the experiences and outcomes of a group of NGOs working in SWM and insights into results achieved by the end of March or early April 2007

Draft Master Plan for Delhi-2021

Delhi Development Authority

http://www.dda.org.in/planning/draft_master_plans.htm

Provides chapter-wise details on achievements, shortfalls to inform plan and methodology specifying in SWM context that not more than 50% of solid waste can go into landfills

Solid Waste Management Programme towards Self-Sustainability at Defence Colony and Gautampuri

Mohammad Tariq; ToxicsLink; 25 January 2006

<http://www.toxicslink.org/art-view.php?id=95>

Details the community based SWM projects in Defence Colony and Gautampuri to create a zero waste residential colonies and promote the sustainable community based zero waste management system.

Hole to Hell- A Study on Health and Safety of Sewage Workers in Delhi (from [Biraj Swain](#), WaterAid India, New Delhi)

Centre for Education and Communication (CEC)

Abstract and ordering details available at: <http://www.cec-india.org/publications>

The report contains baseline information on demographics, socio-economic conditions of sewage workers in Delhi and detailed analyses of their present health and safety status

Self-Employment Scheme for Manual Scavengers on the Anvil (from [Bharati Joshi](#), Ashoka-Innovators for the Public, Jaipur)

Aarti Dhar; The Hindu; 20 January 2007

<http://www.hindu.com/2007/01/20/stories/2007012003441400.htm>

Discusses the scheme which will be implemented by the Ministry of Social Justice and Empowerment; providing subsidies and loans to manual scavengers for taking up self-employment ventures

From [Radhika K. Jung](#), UNIFEM, New Delhi

Rising from the Ash Heap - Waste collectors assert their humanity

Ashoka Page, Combat Law, Vol 1 Issue 4, October - November 2002

http://www.combatlaw.org/information.php?article_id=118&issue_id=4

Details Milind Ranade and Kachra Vahtuk Sanghash Samiti (KVSS) ("Waste Collectors and Transporters Union"), efforts towards safe and human conditions of waste collectors through PIL

Profile of Milind Ranade

Ashoka Fellows, 2000

<http://www.ashoka.org/node/2564>

Provides Milind Ranade's profile who works to improve the health, welfare and bargaining power of waste collectors by representing them through his organisation Kachra Vahtuk Sanghash Samiti

Andhra Pradesh Urban Services for the Poor (APUSP) (from [D. Rayanna](#), Andhra Pradesh School Health Association, Secunderabad)

<http://www.apusp.org/reports/overall.htm>

Recommended for training public health workers and staff in a number of municipalities, focused on improving municipal performance, environmental infrastructure and strengthening of CSOs

From [Surekha Sule](#), National Institute of Rural Development, Hyderabad

Best Practices in Solid Waste Management - Volume I: Action Plan for Effective Management for Municipal Waste and Volume II: Compendium of Best Practices in Municipal Waste Management (2004-2005)

Jawaharlal Nehru National Urban Renewal Mission, GoI and City Managers Association of Maharashtra

http://jnnurm.nic.in/best_prctices/swm.htm

Volume I provides a gist of suggestions/action plan arising out of the study as well as the legal framework for SWM activities and Volume II covers the efforts of individual cities in Maharashtra

Municipal Solid Wastes (Management and Handling) Rules, 2000

Notification, Ministry of Environment and Forests; 25 September 2000

<http://www.envfor.nic.in/legis/hsm/mswmhr.html>

Lists the categories of wastes and provides comprehensive guidelines to regulate the management and handling of Municipal Solid Wastes in the country.

From [Prabhjot Sodhi](#), UNDP GEF Small Grants Program (SGP), Centre for Environment Education (CEE), New Delhi

Systematic Process for Solid Waste Management (SWM)

<http://www.solutionexchange-un.net.in/environment/cr/res30010701.doc> (Size: 443 KB)

Provides a process based flow chart on lessons from projects, defining how to address issues in SWM in a partnership model with civil society and municipal corporations with guidance and support

Strengthening the Role of Safai Mitras (Ragpickers) in Solid and Bio-Medical Waste Management in Patna through Community Led Systems

<http://www.solutionexchange-un.net.in/environment/cr/res30010702.doc> (Size: 39 KB)

Details the project aimed at facilitating and disseminating sustainable decentralized, community led systems for SWM; also strengthening livelihood alternatives of the rag pickers (Safai Mitras).

Society for Community Health Welfare and Environment Practices (SCHWEP)

<http://www.solutionexchange-un.net.in/environment/cr/res30010703.doc> (Size: 41 KB)

Envisages local community involvement in managing local environment in a sustainable manner by making use of biodegradable wastes and facilitating citizens to adopt safe environmental practices

Contacts Details of Partners

<http://www.solutionexchange-un.net.in/environment/cr/res30010704.doc> (Size: 26 KB)

Provides a list of partners and their contact details involved in the SWM processes and strengthening of alternative opportunities for rag pickers adopting different strategies across the country

From [Alok Srivastava](#), UNDP, New Delhi

National Scheme of Liberation and Rehabilitation of Scavengers and their Dependents

<http://www.solutionexchange-un.net.in/environment/cr/res11010701.pdf> (Size: 944 KB)

Details the scheme aimed primarily at freeing scavengers from their inhuman occupation and to provide them with alternative and dignified occupations within a period of five years

National Scheme of Liberation and Rehabilitation of Scavengers and their Dependents – Modifications in the Existing Scheme

<http://www.solutionexchange-un.net.in/environment/cr/res11010702.pdf> (Size: 174 KB)

Provides the revisions to the guidelines on the National Scheme of Liberation and Rehabilitation of Scavengers and their Dependents, issued as on 1996

Statewise Financial and Physical Progress Since Inception of NSLRS

<http://www.solutionexchange-un.net.in/environment/cr/res11010703.pdf> (Size: 67 KB)

Reviews the progress of the NSLRS Scheme as of 1996 providing the total number of scavengers, and the total number of beneficiaries assisted for training and rehabilitation

Objectives of the National Safai Karamcharis Finance and Development Corporation

<http://www.solutionexchange-un.net.in/environment/cr/res11010704.pdf> (Size: 158 KB)

Provides the main objectives of the NSKFDC namely promotion of economic development activities and self employment ventures for Safai Karamcharies

Self-Employment Scheme for Rehabilitation of Manual Scavengers

<http://www.solutionexchange-un.net.in/environment/cr/res11010705.pdf> (Size: 314 KB)

Initiated by Ministry of Social Justice and Empowerment wherein beneficiaries are provided assistance for rehabilitation through training, loan, subsidy and bank credit at prescribed interests rates

A Collection of Solid Waste Resources (from K. Rajasekharan, Kerala Institute of Local Administration, Mulagunnathukavu, Thrissur; [response 1](#) and [response 2](#))

Order at: National Service Center for Environmental Publications (Request publication number EPA 530-C-04-002), U.S. EPA/NSCEP, P.O. Box 42419, Cincinnati, Ohio 45242-0419 or nscep@bps-lmit.com

CD-ROM contains more than 300 publications on hazardous and non-hazardous waste including reuse and recycling, buying recycled, hazardous waste management, composting, and used motor oil

From [Pankaj Kumar S.](#), Resource Person

Clean Communities: A Comprehensive Guide to Effective Solid Waste Management

Toxics Link; 1 December 2005

<http://www.toxicslink.org/pub-view.php?pubnum=105>

Manual creates awareness on decentralized community-based solid waste management among all the stakeholders about various critical issues involved such as low-cost, effective means of SWM

Aiming for Zero Garbage in India's Cities

People and Cities; 16 February 2006

<http://www.peopleandplanet.net/doc.php?id=2669>

Reports on successful efforts made in Delhi to deal with the problem of growing waste and related issues in Urban India by employing effective SWM practices

From [Ramya Gopalan](#), Research Associate

Health Studies on Conservancy Staff and Ragpickers

Central Pollution Control Board; 2004

<http://www.cpcb.nic.in/highlight2004/highlight2004ch3.htm>

Brief of a study initiated by CPCB on assessment of health status of conservancy staff and other community associated with handling of solid waste management.

Low Cost Sanitation Scheme for Liberation of Scavengers

Manipur Urban Development Agency, Imphal

<http://muda.nic.in/ILCS.htm>

Brief on the scheme aimed at converting existing dry latrines into low cost pour-flush latrines in order to eliminate manual scavenging and rehabilitate the scavengers

National Action Plan for Total Eradication of Manual Scavenging By 2007

Planning Commission (Housing and Urban Development Division), PUCL Bulletin; January 2004

<http://www.pucl.org/Topics/Dalit-tribal/2004/scavenging.htm>

Document based on the review of various schemes a draft 'Action Plan' drawn up to make fully effective the programme of liberation & rehabilitation of scavengers to eradicate manual scavenging

General Loan Scheme for Self-Employment for Safai Karamcharies in Collaboration with National Safai Karamcharies Financial and Development Corporation

Delhi SC/ST/OBC/Minorities/Handicapped Finance and Development Corporation Limited

<http://dsfdc.delhigovt.nic.in/safaikaramchari.htm>

Set up to promote economic development activities of Safai Karamcharies and dependents and to promote self-employment ventures for their benefit and or rehabilitation

New Self-Employment Scheme for Rehabilitation of Manual Scavengers on the Anvil

Press Information Bureau, Government of India; 19 January 2007

<http://pib.nic.in/archieve/others/2007/jan07/2007011912.pdf> (Size: 1 GB)

Under the scheme identified scavengers and dependents will be provided subsidy and loan for undertaking self employment ventures and also training upto one year for skill development

National Scheme of Liberation and Rehabilitation of Scavengers and their Dependents

Click [here](#) to view PDF (Size: 142.7 KB)

Brief on the National Scheme, and others within such as the Integrated Low Cost Sanitation Scheme, SJSRY, Valmiki Ambedkar Awas Yojana (VAMBAY), National Slum Development Program (NSDP) etc

A Continuing Social Outrage

Mari Marcel Thekaekara; The Frontline, Vol. 14, No. 20; 4-17 October 1997

<http://www.hinduonnet.com/fline/fl1420/14200990.htm>

Discusses the continuing practice of manual scavenging of human waste and the Gujarat struggle showing how change in sanitary workers' status requires social attitude change.

A City Cleans Up– the Story of Surat's Transformation

Ministry of Environment and Forests, Government of India

<http://envfor.nic.in/divisions/ic/wssd/doc3/chapter4/css/Chapter4.htm>

Discusses the integrated approach of monitoring, regulation and streamlining of waste collection and disposal adopted by Surat Municipal Corporation during the time of Plague

Toilet- A Tool of Social Change

Bindeshwar Pathak; World Toilet Summit 2004, Beijing, China; 17-19 November 2004

<http://www.worldtoilet.org/articles/wts2004/Toilet - A Tool of Social Change.pdf> (Size: 226.2 KB)

Presentation spells out the invention of the toilet as a powerful and potential tool of social engineering, social justice and is related to larger issues of social transformation.

Report of the High Power Committee – Urban Solid Waste Management in India

Planning Commission, Government of India; 1995

http://planningcommission.nic.in/reports/publications/pub95_hghpwr.pdf (Size: 895.6 KB)

Report provides a framework for the identification and solution of intricate problems of urban solid waste management at the local, regional and national levels; recommending the use of microsystems

Status of Water Supply, Sanitation and Solid Waste Management in Urban Areas

National Institute of Urban Affairs; June 2005

<http://www.urbanindia.nic.in/moud/theministry/statutoryautonomous/niua/part1.pdf> (Size: 539.2 KB)

Assesses the status of water supply, sanitation and solid waste management in select cities to estimate fund requirement for full coverage of these services in urban areas

Management of Solid Waste in Cities

Infrastructure Professional Enterprise Pvt. Ltd.

http://fincomindia.nic.in/fincomnet/rpt_intra/swm_rpt%20part1.doc (Size: 1,060 KB)

Draft report identifies lack of technical, managerial, administrative and financial resources and weak institutional structure of Urban Local Bodies as reasons for poor SWM in urban India

Building Effective Health Strategies for Waste Workers

International Development Studies; Spring 2002

<http://www.utoronto.ca/waste-econ/JoeyHerrington.pdf> (Size: 705.61 KB)

Paper investigates the health status of waste pickers and influencing factors at Khanh Son Landfill in Danang Vietnam in an effort to fill the research gap on health issues of sanitary workers

From [Jeevan Mohanty](#), Research Associate

Madhubani Experience on Citizen and Municipal Resource Engagement (Solid Waste Management)

Shalini Grover; LogoLink International Workshop on Resources, Citizen Engagement and Democratic Local Governance; 6-9 December 2004

<http://www.ids.ac.uk/logolink/resources/downloads/Recite%20writeups/Madhubani.pdf> (Size: 166 KB)

Paper cites the case study of Madhubani (Bihar), where the citizen initiative was catalytic in the utilization of municipal resources for solid waste management.

Agra Municipal Corporation Project

Urban Finance, Vol. 6 No. 2; June 2003

<http://www.niua.org/newsletter/june03.pdf> (Size: 666 KB)

Note on a project designed to enhance citizen participation in sanitation service delivery and targeted taxation system for reform and more resource mobilization

Responses in Full

[Anurag](#), Centre for Budget and Governance Accountability, New Delhi

I am not in a position to comment on the specific query you have raised. But I can point a few issues that need to be addressed.

First of all, manual scavenging is a traditional bane of our society. It is a sorry state to know what an individual may go through in this profession. One way of knowing poverty is to study the oral tradition and several such sources have some very sad stories about scavengers.

The second issue is that regarding this profession, in Delhi not a very optimistic picture emerges as far as financing is concerned. By and large what seems to have gone wrong is the following:

1. There is no direct assistance to any significant extent for 'Plan' activities by the Delhi state or the Centre for the Delhi municipality. Most money which comes to the Municipality for this source becomes a loan to the municipality and contributes to the net liability of the Corporation, which if we ignore its nature as a public entity, is 'bankrupt' as per the principles of accounting.
2. The taxes raised by the Municipal Corporation of Delhi (MCD) are not significant. So we may say that 'revenue' is very weak because tax hikes are not enough and there is an indebtedness because of loans from external agencies of the govt.
3. The larger chunk of the MCD revenue is used for salaries. Eventually how the lobbies of temporary workers ended up as permanent employees and became consumers of almost all revenue as 'salaries', is another story.

This is the context in which we should evaluate the 'welfare' that we expect from the Municipal Corporation for any group associated with the system.

My conclusions earlier seemed to be that we should downsize the corporation but that may have several implications, not necessarily translating into welfare for the downsized or the marginalised.

There are, however, a number of possible solutions.

If the JNURM can finance modern equipments and training for conservancy staff and upgrade their skills, it can be an excellent step to integrate the community into the mainstream, besides making services more efficient. We must also have some strategy to bring the 'conservancy' staff and the 'other' together within the corporation.

Simultaneously, the revenue and expenditure of the MCD should be studied to find solutions that would take care both of maintenance as well as provide income to conservancy staff.

I know that companies from Singapore have been contracted to clean the posh neighbourhoods in at least one of our cities. But we must discourage this practice. MCD must not take the onus of maintenance of elite neighbourhoods as its sole focus. It must have a larger social focus. Some residents are so affluent in Delhi, that at least in one residential area (and a large one at that), there is an independent electricity generation system. Contracting their cleaning will mean revenues to the company, salaries to the MCD as usual business but definitely no incentive to the 'conservancy' class. And there are enough resources that we can channelise for increasing the efficiency as well as equity of these services, besides provision of livelihoods.

I would welcome comments on how we can work to make our cities more practical, more workable, more human.

[Arunabha Majumder](#), All India Institute of Hygiene and Public Health (AIIPH) and Jadavpur University, Kolkata

My comments on your query are as under:

1. The aim of primary collection of Municipal Solid Waste (MSW) should be
 - 100% solid waste collection from all sources of generation
 - No double or multiple handling of solid waste
 - Solid waste should not touch ground surface except in the treatment and disposal site.
 - Containerised collection system
 - Segregation of solid waste into organic, inorganic and recyclables
 - House to house collection of solid waste; where not feasible, introduction of mobile-bin collection system
 - Fixed routing and scheduling of primary collection in consultation with Ward Committee
 - Segregated organic and inorganic solid waste should be collected by municipal conservancy workers or private conservancy workers (contractual). Recyclables should be collected by scavengers/ rag-pickers (they will need to be organised through self-help groups with support from the Municipality/ NGO)
2. Scavengers and rag-pickers suffer from many diseases such as skin infection, diarrhoea, enteric fever, infective hepatitis A and E, infective hepatitis B, tuberculosis, acute respiratory infections, malnutrition, dog bites, etc. Conservancy workers are susceptible to such diseases if Solid Waste Management (SWM) is done in a disorganised manner. Many of them are also addicted to drug, alcohol etc.
3. Use of protective gears is strongly recommended.
4. Socio-economic upliftment of scavengers and rag-pickers should be a part of improved SWM.

5. People's participation and involvement is a necessity for the success of SWM program.
 6. For calculating the economic viability of composting, the environmental costs must be considered. A clear policy in this regard is a necessity.
 7. Sale proceedings of recyclables (10 to 12% of total MSW may generate about Rs 10 lakh by selling salvageable materials of MSW per year from 60,000 Calcuttans). The amount will help to improve the livelihood and health conditions of conservancy workers. At least they will be free from debt and exploitation by middlemen.
-

Subodh Kumar, Udyog Bharati, Ghaziabad

We in India are very strong on 'paper plans'. But without the following two specific inputs, even the best of plans and generous availability of finances can not ensure desired success on the ground:

1. Input and availability of local area specific state of art modern technological interventions.
2. Motivation and involvement of knowledge communities like the engineering colleges, research institutions, schools, college / university student communities and NGOs in such local community activities.

In India, unlike in developed countries, private business and industry are not yet available to provide the services and products required for modernizing conservancy services in urban areas while technical and other educational institutions think that they only have to educate young people to get paper certificates. However, they feel that developing awareness to community problems, and involving young minds in to community problems is not their mandate.

The Sulabh 'leach pit' technology was acclaimed the world over as a solution and alternative to the evil of third world manual scavenging. While this is indeed true, the technology has to be adapted to suit local conditions as regards type of soil, and availability of adequate land with individual households to construct the leaching pits. The technology is so simple that if people are given proper training and guidance for a 'do-it-yourself' method of implementation, it can work wonders.

But our systems are always based on subsidies, without due attention to technical aspects to suit the local conditions. In many rural and urban areas, a lot of money has gone down deep pockets in the name of installing leaching pit toilets, and we are back to manual scavenging later. In fact more unsanitary conditions are prevailing now than earlier.

While pursuing these topics for Uttaranchal, a note was prepared for holding a comprehensive technical workshop for the upgradation of our knowledge and state of art industrial products availability. In spite of great efforts, there were unfortunately no takers of interest in this work in the knowledge community of Uttaranchal in spite of the Uttaranchal State Council for Science and Technology trying its best. In addition to the technical aspects, NGO activities should aim at decentralized on-site treatments and separation of grey water and black water for existing rural and weaker section urban areas.

For future urban areas, all group housings should be expected to provide for their own water harvesting, grey-black water separation and excreta treatment. The municipal sewers should not have any black water or night soil drained into them.

Sumita Ganguly, UNICEF, New Delhi

Thanks for highlighting the main steps in MSW collection. I request members to please throw some light on what the government's policy is with regards to sanitation workers who work at the bottom of the ladder and are referred to as "scavengers" and "rag-pickers". As rightly pointed out, this aspect of MSW management is often ignored. Firstly, any policy should define methods of collection, transportation, segregation and final disposal. The people who are doing this work should all be "sanitation workers" with specific tasks, hours of work, appropriate tools, protection gears and health insurance as they are far more vulnerable than other municipal workers. Outsourcing is an easy way to evade all these responsibilities. The agencies that are contracted invariably employ women and children as they can hardly raise their voices against low wages paid to them. Many children stay out of school just to do this work, and the contractors continuity to do this with impunity. Unless there are clear clauses in a policy prohibiting the employment of children in sanitation work, such violations will continue.

What then is the regulatory framework to ensure that this kind of exploitation cannot continue? There are some good examples that I know from Tamil Nadu (Tiruchirapalli and Vellore districts - may be some others as well) where under the rural sanitation programme TSC, workers are provided shoes, gloves and masks and in some cases even overalls. They are also provided carts for collection. Households are asked to segregate waste at the source of collection. The day's collection is brought to a properly chosen place outside the habitation where the sorting takes place in simple ventilated sheds with shelves constructed with bamboo mainly. The organic part is laid out in chambers for vermicomposting and the others are sorted and stored for recycling / disposal. The income from this contributes to the payment of the workers. In addition the households contribute as well. This reduces the financial burden on the managing agency. The selection of the site of dumping is important. I have seen large dumping grounds swarming with flies and vultures right in front of a school; which came up first is not known but these are the kinds of things that call for sensitization of the planners and the implementers. These innovations now have to be studied carefully, and scaled up with improvements and adaptations as required.

Jyotsna Bapat, Consultant, New Delhi

I would like to share my experience with the East Delhi Slums of West Vinod Nagar, where I was doing field work during 2004-2005 for an NGO. One complaint that the residents of the slum had was that although conservancy staff had been employed by Municipal Corporation of Delhi, none of these were ready to clean their drains or collect their domestic waste without being paid on a daily basis. They also complained that in spite of them paying for the service the work was never satisfactory. So the local NGO had to resort to PIL as a means to ensure some accountability.

Another 'illegal' slum in the same area had found another solution. They met their need for conservancy by employing a person directly and paying him/ her for the job on a daily basis. This ensured his/ her accountability to the slum residents and the lanes were much cleaner in comparison with the one mentioned above.

Thus, the power to hold the conservancy staff accountable to local residents is essential to ensure environmental sanitation and is a very important element in keeping the urban environment clean. If the Urban authority is withdrawing from this service, private contractors who are not accountable to local residential communities is not a solution to the problem.

Digbijoy Bhowmik, GoI-UNDP Project 'National Strategy for Urban Poor,' New Delhi

On the issue raised by you, I would like to bring two examples to your kind attention:

First, almost 10 years ago, the renowned fast food chain, Nirula's had been commissioned to carry out door-to-door collection of solid waste in select areas of Delhi, under the Municipal Corporation of Delhi (MCD). The

arrangement worked fine for about six months, and then was simply discontinued as the Department could not justify the outsourcing process against a hugely existing staff budget component. The same situation also prevailed in Chennai and Pune, which have at least repeated the above exercise sporadically.

Currently, solid waste management (SWM) processes in MCD areas of Delhi are running on a special purpose vehicle or SPV model, with a new entity called Delhi Waste Management (DWM), which is taking care of the macro-infrastructure, particularly with respect to transportation and disposal. However, at the grass-roots or collection level, the system is still more or less informal - in fact, it is generally believed that there are at least four informal sector workers to one safai karmachari assigned by the MCD, which is also the only individual on its payrolls. The remaining work is on the basis of local need-based markets created, i.e. a group of households paying Rs. 20 to Rs. 30 a month to get rid of their garbage to the nearest 'transfer point', which is at times, stated to be 'controlled' by the hierarchically 'superior', 'institutionally-backed' safai karmachari.

Neither the urban local body, nor many civil society organisations, nor the clientele, i.e. those whose garbage is being picked up, have indicated much concern about the plight of the people engaged in this informal sector. While some Civil Society Organisations (CSO) have attempted to specifically target ragpickers and other people engaged in the so-called 'lowly' activities of solid waste management, generally these efforts eventually end up beyond the normative processes of urban solid waste management and become too component specific. They thus create system bottlenecks with urban local bodies in terms of resources such as land allotment for vermi-composting, support from local law enforcement towards protecting ragpickers on duty - and all because the Urban Local Body (ULB) based macro-system cannot identify with CSO-based micro-processes. In other words, some parties have concentrated on the people and not on the system, while the other parties have concentrated on the system and not the people.

Some insights into results achieved in the above context should be available by the end of March or early April 2007, when a group of NGOs working in the area of solid waste management as a tool for alleviation of poverty in six selected locations of Delhi would provide their experiences and outcomes under the UNDP assisted project 'National Strategy for Urban Poor', being implemented by the Ministry of Housing and Urban Poverty Alleviation, Government of India.

On the other hand, the following example reflects some degree of thinking on the plight of the conservancy staff. As part of the clean Kerala campaign, women's groups, supported by the Kudumbashree State Poverty Eradication Mission have been organised into systematised units operating in assigned areas, and have been entrusted an end-to-end (well, almost - because mechanised and scientific disposal is yet to be introduced in most ULBs in Kerala) solution in the overall SWM process. As per the status report available on the site, there are 62 units operational in the Clean Kerala Business. Each unit therein has 10 to 12 members, have been provided a specialised auto-rickshaw (modified to carry garbage). Besides, unique identifying apparel, standardisation in service costs and issue of safety gear such as protective gloves and masks provide a unique proactive branding to the process. Details can be had on www.kudumbashree.org.

In short, the two above examples reflect a stark issue of the ULB being able to concentrate only on the system or the human of SWM at any given point of time. Under the circumstances, one would have to take a multi-pronged, but business-centric approach at both resource as well as people management in SWM. The following considerations could well be kept in mind:

a. Most ULBs now have been made to put restrictions in terms of new recruitments - and offer a range of golden handshake measures - this technically takes care of a huge amount of staff which supposedly takes up a huge cost but allegedly does not deliver. In a matter of 10 to 12 years, the existing staff would eventually be phased out through retirement, Voluntary Retirement Schemes, promotion, or voluntary and conditional transfer to outsourced party, as applicable.

b. Adoption of a systems based approach - with dedicated focus and insistence on SHG / cooperative structures taking care of last-mile service delivery and service offloading. As per the new draft Master Plan of

Delhi, 2021, not more than 50% of solid waste could go into landfills, also in line with the Central Public Health & Environmental Engineering Organisation – Ministry of Urban Development norms on the same issue. Resident Welfare Associations and Self Help Groups would be encouraged to develop their own localised disposal systems that supplement the macro-process, wherever possible. In this case, strict conformity standards must be set in order to make sure that the grass-roots level arrangements perform both on human development as well as system compliance standards, while not becoming unreasonably expensive to maintain. At the same time, the overall SWM process must also be looked at in a way so that the overall value from the process can be enhanced through dependence on secondary and tertiary sectors and offsetting the value addition towards the betterment of conservancy workers.

c. **Brand merchandising of cash-out-of-trash** - a lot of stigma associated with conservancy workers is accounted for by limited knowledge (yes, even at the upper strata of the society!) as to how important and productive the entire business of garbage management actually is. Good targeting and packaging of the know-how involved in the process can be very productive in enhancing the image of conservancy workers. A lot has to do here with the adoption of appropriate technology, and its Information Education and Communication packaging. On a personal note, I request members to ask their school-going children how much they are taught about garbage management - maybe we can post this as a separate query sometime.

d. **A roll-in-roll-out model for conservancy staff** - As of now, technological limitations prevent much value addition to be created within the SWM process in any given segment. This would also mean that any given segment, i.e. collection, segregation, transportation and disposal can systematically accommodate only a finite number of workers per given population. However, in order to provide new livelihoods in this area, some individuals must periodically move beyond the segment to newer pastures where value addition is possible - for example, a person engaged in door-to-door collection moving into logistics of waste collection and transportation, or even better, becoming part of a product-specific recycling process far from the original catchment. This will leave space for another needy person to fill up the shoes of the collector. This exercise may be repeated, say, every five years or so, depending on what kind of secondary or tertiary value is generated by this industry. This process of replacing the entire stock of workers in a particular segment periodically is termed as a roll-in-roll-out process. During the period of five years or so that a person spends in any segment, institutional support in the form of credit-plus services, insurance, skill upgrade opportunities and business development can be extended to him/ her/ the group - on a reducing basis, depending on the segment. Some of the activities such as these could be supported under SJSRY (or its derivative, which is currently being readied for the 11th Plan).

[Biraj Swain](#), WaterAid India, New Delhi

I am very happy that after almost 2 years of the existence of the WES Community yours is the first query I see on the condition of conservancy staff in India.

An Ahmedabad based group called KSSM (Kamdaar Mazdoor Swasthya Sangathan) is doing some fantastic work with the Conservancy Staff of Gujarat. It is partly a trade union of the Sewer line workers of Gujarat with chapters in Ahmedabad, Baroda etc.

In the month of May and June 05, 18 young sewer line workers died in Ahmedabad, Surat & Baroda. These are just the figures of Sewer line workers who died in the year 2005 while 'on duty'. The Sewer Cleaners are one of the most marginalized communities. They are aptly described as the Dalits amongst the Dalits and they more often than not come from the Manual Scavenging Communities. While they are exposed to dangerous work conditions, noxious gases, industrial toxic waste, unsanitary life situations, measly wages and have no employment security, their work is crucial to urban sanitation and health.

Taking cognizance of these deaths, the Gujarat High Court has issued the following suo moto orders to the Urban Development department of Gujarat:

- No workman to get into sewer lines. Whenever they do get into sewer lines, the fire tenders, rescue workers to be on stand-by.
- The urban development department of Gujarat has been sanctioned Rs 3 crores for protective gears for the manhole workers.
- Rs 2 lakhs as ex-gratia payment for all the 18 demised workers and 50,000/ as personal accident insurance for all the workers on the municipality rolls.

Unfortunately, this was achieved after 18 deaths in Gujarat but in Delhi where 28 sewer line workers had died by the month of August in the year 2005, no such judicial activism had been triggered. KSSM has done a study with CEE on the "Status of Manhole Workers and the Occupational Hazards they face".

You should get in touch with KSSM whose main aim is dignifying the conditions of sewer workers & getting them employment benefits that most of us take so much for granted.

Kris Dev, Transparency and Accountability Network, New Delhi

Arunabha's points are excellent. How we implement them is the question. Most of our cities and towns are veritable garbage bins with garbage lying on street corners - except in VVIP areas. In addition to garbage spit, urine and human excreta are found all over. The wine and arrack shops add to the problem.

Regarding garbage, every household must be asked to set-up garbage bins just inside their premises for collection. It can be made of bamboo, a renewable forest. It has to be in 3 boxes with lids for - organic, inorganic and recyclables. No throwing of garbage in public places or street corners should be permitted. Each local area residents and conservancy staff should be made responsible for garbage collection and disposal locally.

There must be public conveniences in every street corner. Pet owners should clean their pet's shit/droppings.

Balakrishnan Elangovan, SMEC India Pvt. Ltd., New Delhi

This is a crucial point for discussion. One needs to understand that a large portion of the community in India has been neglected for long. Even in most municipal areas in India, the system of manual scavenging is no longer happening on paper, but exists in reality. The good points highlighted by Mr. Biraj are eye openers to all concerned about the risks faced by scavenging community. These points need to be conveyed to the sanitation workers community so that they are protected from any harmful events. It also becomes mandatory for local bodies to have a transparent system to include this information under the Citizen Charter and for NGOs involved in this area to play an active role to create awareness among this community.

In terms of socio-economic dimensions, this particular community has the risk of involving their generation in the same line of job, as the external community treats them as scavengers. Their socio-economic background, current education status of their children, disease profile of the community, etc. need to be assessed, though this is currently neglected by any plans prepared by the municipality. Rehabilitation measures to involve them and their children in other alternative jobs could be a starting point for bringing in the reform process through JNNURM.

A. Prabakaran, Public Action, New Delhi

Glad to hear about Aparna's study on "Municipal sanitation workers". Let me share my points with you regarding this issue.

- The commitment level of the staff in India is on the fast decline. This is truer with government staff because of their high job security.
 - Any action against non performing staff attracts caste/religious/political consequences.
 - There should be a reward and punishment system for performing and non performing staff. In absence of this there won't be any motivation for interested staff to perform.
 - It is high time our Indian administration sanitises and sterilises the thought process of its staff and motivate them adequately to perform.
-

[D. S. Dhapola](#), Uttaranchal Academy of Administration, Nainital

Interesting topic. Mostly sanitation workers at municipal level are also discarded socially and the government's policies for their welfare are not effective. Most of the Nagar panchayat [municipal bodies] have a shortage of funds even for salaries of sanitation workers. The JNURM programme is also not addressing these problems even though the Central Government is going to spend Rs.50,000 crores in the next 6 years. Detailed Project Reports on this are under preparation. If we are able to address this problem, we will be able to give valuable suggestions to the Ministry of Urban Development, GOI.

[N. K. Agarwal](#), Geological Survey of India (G.S.I.), Dehradun

I would like to ask what the root cause is for this status of conservancy staff. Is this confined to only the conservancy staff of Municipal Corporations? The answer is no!

In trains, it is the same situation as nobody comes to clean them, and it is only the urchins who do the cleaning and ask passengers for money. The exteriors of trains remains dirty even at the starting point.. and so on.

What happens to the Sulabh Sauchalayas? If you have ever visited ISBT, New Delhi, Haridwar, Rishikesh or along the Char Dham routes, the sanitation situation is very bad. For women the situation is bad everywhere. The solution seems to start with each individual and start from his own house, palace or Jhuggi. This will reduce the burden on the sanitation staff, and make their conditions better.

I also agree with members about the role of subsidy and the lack of technological inputs in sanitation. Garbage disposal is particularly affected by this problem as it is considered a revenue burning option, and nobody wants to invest in it for this reason. Further, downstream integration of technology needs to be done. For example, the use of polythene as packaging material and as carrybags has made polythene the largest pollution contributor. The brunt of all this is borne by the Sanitation workers.

[A. K. Paikaray](#), Mahavir Yubak Sangh, Orissa

Greetings! I want to underline that good practices or attitudinal change needs to come both in rural as well as in urban areas. In urban areas, we throw away the garbage on the road, making the street dirty and ugly. We cannot blame the authorities for this and the onus lies on us. Outsourcing of these services is the solution may solve the problem partially. The Bhubaneswar Municipal Corporation has a good Public Private Partnership for cleaning Bhubaneswar city.

[V. Kurian Baby](#), Socio-Economic Unit Foundation (SEUF), Kerala

It is true that the condition of conservancy staff (sanitary workers) among the municipalities in the country is abysmally poor. In Kerala, sanitary workers are relatively better paid, unionized and the staff payment accounts for about 90% of the total recurring expenses on solid waste management.

In general, sanitary workers are exposed to direct health risks mainly out of unscientific practices. A study conducted by NEERI has shown a very high incidence of respiratory diseases, jaundice, skin diseases etc., much above that of the control group. The reform process should be made more inclusive by:

- improving working conditions and productivity
- creation of awareness and capacity building
- better health care facilities, distribution and use of protective gears, periodic health check up and
- selection of appropriate technical options for waste handling.

In India, exposure to biomedical and hazardous wastes in the Municipal waste stream, on account of lack of facilities and weak enforcement mechanism of relevant laws, are other major health hazards.

Kerala has innovated excellent best practices for outsourcing solid waste collection by well trained NGOs and Kudumbasree workers without displacing municipal sanitary workers (permanent and casual). This is because street cleaning, transportation, etc., continues to be within the functional domain of the municipal staff and house to house collection is done by Kudumbasree/NGOs.

According to me, the really miserable conditions are for rag pickers, who are in the informal sector and who play a critical role in solid waste management in the country. It is estimated that around 4 million tones of recyclable waste is retrieved by around 575,000 rag pickers a year in India. The estimated turn over of the rag pickers' business in India has been estimated at about Rs 12,280 million with virtually no public investment. They are seldom cared for and protected, and are politically marginalized. They work in unhygienic and miserable conditions to eke out a living. In many ways the impact of outsourcing and other reform measures have very little to offer for them and may possibly lead to adverse livelihood impact for them. If the reform is to be inclusive, we need strategies to address the woes of the conservancy staff within the formal stream and the rag pickers in the informal sector.

Saugat Ganguly, Gamana, Hyderabad

The city of Hyderabad, which generates about 2200 metric tonnes of solid waste per day, does not depict a picture which differs too much from other big cities of India. Garbage collection is done through Safai Karmacharis [sanitation workers], who are mostly employed by contractors. An interesting initiative has been taken by the municipality under which, if any colony or Resident Welfare Association comes forward to take up door-to-door collection of garbage, the municipality provides a tricycle to them free of cost. The Association then engages a person to use the tricycle to collect garbage from all houses every morning. Each house pays Rs. 10 to Rs. 20 every month to this tricycle puller for his livelihood.

In spite of this initiative, a lot needs to be done to improve the situation of garbage collectors in this city, although it is better than in many other large cities. Firstly, the garbage collectors don't have any security - social or economic. They collect garbage, sometimes without taking the minimum precautionary measures; as a consequence many of them suffer from various respiratory and skin diseases. The city also has more than 3,000 manual scavengers. No one knows much about these ostracized manual scavengers except that they are in a deplorable condition. The only way out for them is abolition of this practice and their proper rehabilitation, which is easier said than done, considering the social stigma attached to their present profession.

In contrast, Suryapet municipality of the same state gives a completely different picture. In an effort to make the town garbage free, the municipality first educated the citizens. The town dwellers now segregate the household waste into organic and recyclable part and dispose it through different coloured bins. The organic

waste goes for composting and the rest is recycled. The practice eliminates the need for any landfill. Hanging bins are fixed to electric poles to make it accessible to the pedestrians. This systematic disposal of waste through public participation encourages the conservancy staff, which is reflected in the way they perform. Composting and recycling brings money to the Municipality, which in turn can be used for the benefit of the conservancy staff. It shows that the condition of the conservancy staff will improve if proper measures are taken at the waste generating source-households, business establishments or hospitals etc.

Rag pickers have a common problem everywhere; a large number of children of younger age group are involved in this business. They should be desisted from being a part this hazardous occupation, and be given proper education. Others from the older age groups can be trained properly and included in the organized workforce of the municipality.

[Alok Pandey](#), PRIA, Jaipur

This is the right time to have a discussion on this topic as in JNNURM there are so many reforms which are supposed to be done by the municipalities.

As far as sanitation is concerned, we all know that even after having a guideline on Municipal Solid Waste management, most municipalities have been unable to implement it. Moreover, as most of the municipalities are working with about 50 to 55 percent of the required human resources, it is a big challenge for them to clean the town.

Further, I would stress that Capacity Building of the staff engaged in sanitation work is most necessary. But we have to think especially about people who are working on a contract basis and do not have job security in the near future.

In my opinion one must also think on the 'dignity' side of the staff who are engaged in sanitation work. Without that the problem could not be solved in a proper manner.

[K. Rajasekharan](#), Kerala Institute of Local Administration, Mulagunnathukavu, Thrissur (response 1)

The Thiruvananthapuram city corporation, during May last year, launched a pilot project for solid waste management involving segregation of garbage at source, and collection of solid waste from households and commercial institutions. Uniformed sanitation workers were drawn from self-help groups under the project, and were provided with caps, rubber gloves, shoes and masks for household garbage collection. The corporation is supplying all households in the project area with plastic buckets in two different colours. While the biodegradable waste is to be stored in the green bucket, the non-degradable materials such as plastic and glass will go into the white one. The green buckets are collected every day and the white ones, once a week. Kudumbasree units are equipped for the primary collection of garbage using three-wheelers fitted with rectangular covered plastic containers. The waste will be transferred directly to garbage tipper trucks at container transfer stations and then trucked to the garbage treatment plant.

The story of this seven crore pilot project in the capital city of Kerala indicates that the undignified handling of sold waste is slowly giving way to modern methods, leading the workers to lower health risks. However, this is not something that happens at other places in the State.

In fact, the handling of solid waste in the municipal areas in Kerala on the whole is a serious issue. Though municipalities and corporation spend crores of rupees for solid waste management, dumping yards and treatment plants, garbage disposal continues to remain a major problem in towns and cities. A Minister recently said that local bodies in the State have failed to execute sanitation work properly during the last few

years, and that is one of the reasons for repeated outbreak of epidemics. When solid waste management itself remains as an area of gross neglect, we cannot expect the local bodies in Kerala to attend to the workers health risks. In this context, attempts at the capital, Thiruvananthapuram, is a welcome sign.

Prabhjot Sodhi, UNDP GEF Small Grants Program (SGP), Centre for Environment Education (CEE), New Delhi

Lovely to see the comments and views of Aparna Das and Arunabha Majumder, on the issues which are very central to our day to day lives. The question is what are we doing and how are we doing. I am involved in facilitating the GEF Small Grants Program, I give below some examples of dealing with the communities and creating an interface with the Municipalities.

1. My own view is that there are varied experiences vis-à-vis the status of conservancy. Many a times it has been seen that the staff suffers from lack of guidance, encouragement and motivation. Their initiatives are not accepted but challenged and no timely actions are taken by senior levels- one may say there is a great divide between the more powerful top rung and the non-motivated complacent, dry, unskilled, unexposed staff. There is also a lack of targeted fund spending approaches at the helm. Therefore one feels that proper facilitation is required between the two sections to face the realities. Yes, the issues are complex and long drawn with no single answers applicable to all places and municipalities.
2. We have been supporting solid waste management projects under the MoEF-GTZ partnership with NGOs in the cities of Puri, Vrindavan, Patna, Ujjain and Tirupati. Our major It has been importantly felt that while all stakeholders are keen to address the issues, the modality of doing this is not clear. That is, are we prepared to take a more participatory, process-based approach, where all stakeholders are made partners in the process? We have developed an easy to understand, simple process based flow chart on the lessons from the projects, defining how to address issues in Solid Waste management in a partnership model with "civil- society" and guidance, support and partnership with municipal corporations. It has not been an easy ride to carry along the diverse and varied stakeholders with different influences. This flowchart can be seen by clicking at the following link:

<http://www.solutionexchange-un.net.in/environment/cr/res30010701.doc> (Size: 443 KB)

3. Of course, there is no doubt that one needs to introduce protection gears in management and operations of Solid Waste Management, but it is more important that lessons and learnings from the micro level projects are integrated at the macro level. In the projects under the GTZ partnerships, the emphasis has been to create local institutions of the rag pickers and the Safai Karmacharis [sanitation workers]. The women involved in cleaning have also got united as SHGs. These institutions have been formed so that the workers can create cohesive ways of working. Some of the lessons drawn are shared herewith at the following links: <http://www.solutionexchange-un.net.in/environment/cr/res30010702.doc> (Size: 39 KB)
<http://www.solutionexchange-un.net.in/environment/cr/res30010703.doc> (Size: 41 KB)

The addresses of all our partners is also attached for reference at the link: <http://www.solutionexchange-un.net.in/environment/cr/res30010704.doc> (Size: 26 KB)

K. Rajasekharan, Kerala Institute of Local administration, Mulagunnathukavu, Thrissur (*response 2*)

A very useful CD-ROM entitled **"A Collection of Solid Waste Resources" CD ROM** which contains more than 300 publications on hazardous and non-hazardous waste, can be obtained from the Environmental Protection Agency office in the United States.

The publications included in the CD-ROM cover many topics, including reuse and recycling, buying recycled, hazardous waste management, composting, and used motor oil. The CD also includes a wide variety of educational materials for youth. Some of the documents in the CD-ROM are in Spanish.

You can order the CD-ROM free of charge from the National Service Center for Environmental Publications (NSCEP) [Request publication number EPA 530-C-04-002]

By mail: U.S. EPA/NSCEP, P.O. Box 42419, Cincinnati, Ohio 45242-0419

By E-mail: nscep@bps-lmit.com

Partha Das, UNDP, Bhubaneswar

Biraj has described what Kamdaar Mazdoor Swasthya Sangathan (KSSM) has done. Unnati, Ahmedabad and PRIA have documented the effect of exposure by the conservancy staff to health hazards. Additionally, KSSM is mobilising conservancy staff to demand effective implementation of the High Court order, which has asked to ban contracting of work and to provide life insurance coverage to conservancy staff. Similar to what Anurag has mentioned for Delhi, even in Gujarat the contracting system is still continuing. Anurag is also right in stating that the localities of the rich and elites are cleaned first and more regularly while informal settlements are usually deprived of this basic service, and if the settlement belongs to dalits, then it is attended to last, if at all.

Further if you look at tax collection or levies for conservancy, several interesting findings emerge. Currently PRIA, UNNATI and several other organisations are conducting a study on municipal finance, which shows that either a tax for conservancy services is not levied at all, or - as is usual - the collection ratio is very poor. This needs to be compared with expenses incurred by the Urban Local Bodies to provide the service.

Manual scavenging, an extremely inhuman work, is still continuing. Several studies of Action Aid and Unnati have identified this and subsequent efforts have put an end to this practice of 'carrying night soil' in many areas. However, the scheme for construction of individual and community toilets (even though it has a subsidy component) in urban areas has not picked up much. Besides judicial activism civil society action has been crucial in this effort.

Under the Jawaharlal Nehru Urban Renewal Mission's (JNNURM), interventions are to be made both in Urban Infrastructure and Governance (UIG) as well as in Basic Services to the Urban Poor (BSUP) components. Efforts will also be made under the Urban Infrastructure Development Scheme for Small and Medium Towns and the Integrated Housing & Slum Programme (IHSDP) under the JNNURM. It must be noted that the onus of improving Solid Waste Management (SWM) and incorporating such issues lies largely with the State Level Nodal Agencies.

The above envisaged reforms also do not explicitly focus on conservancy aspects. However, the implementation of the 74th Constitutional Amendment and devolution of functions under the 12th schedule could bring in some difference, with a few states showing the way. The SWM Detailed Project Reports mostly focus on equipments, landfill sites, etc. Involvement of rag-pickers is largely missing in such projects. The Technical Advisory Group headed by Ramesh Ramanathan at national level could initiate such endeavours in the larger context. Similar Committees/Groups at state level should involve people having such perspectives/concerns.

One of the key governance reforms would be taxation reforms and this needs a serious deliberation followed by effective implementation. One of the major drawbacks in the admissible component of JNNURM coverage (in spite of the many positive elements of JNNURM – as a serious focus on urban renewal was missing for a long time) is inadequacy of social and poverty focus. Experts like Prof. Amitabh Kundu and several other organisations in the south have been bringing these to the fore for quite sometime.

Ajit Seshadri, The Vigyan Vijay Foundation, New Delhi

It has been observed that Solid Waste Management (SWM) is in a deplorable state. The observations made by Aparna Das and many others who responded are very apt. A lot is required to be done.

1. Waste-water, rain water and solid waste and industrial wastes etc need to be managed by one organization in a city and not multiple bodies.
2. Some settlements (about 20%) have mechanisms for collection, transportation, safe disposal is in place but in most other settlements (about 80%), it is deficient.
3. No innovations have been tested and tried out other than the outsourcing done in some wards for SWM work.

In response to the query raised, my observations are as below:

1. The status of conservancy staff in Municipalities in various parts of India

Staff are doing work in a routine manner and there are seldom more than 50% staff in attendance. There is poor accountability and concerned staff are not responsible to do the primary work etc. In most municipalities, only 70% of the garbage is lifted daily and the rest is taken in a subsequent lot. Wastewater drains and other low-lying areas are often filled with all the wastes from colonies. There is no proper awareness on the sanitation aspects, no training and participation of the working staff, as well as the supervisors and the engineers in-charge. A no-care attitude is used for the work and responsibilities.

2. The health hazards and diseases that arise due to exposure to hazardous wastes and the precautions that the staff need to take to protect themselves

As indicated above, since there is no awareness and superficially skeletal care is taken, there are a lot of problems due to the nature of work, leading to a shortened life expectancy. The workers are prone to bad habits and elders in the family pass these on to the next generation.

3. Recommended mechanisms for incorporating health protection and economic rehabilitation of conservancy staff and their dependents in the Municipal Reform process.

There is no will among the seniors to develop a mechanism to train staff. Age-old manual methods are adopted and no literacy imparted. There has to be a revolutionary shift for the better, which can happen only if a military type of discipline is inculcated. Some role model wards/ cities can be developed and maintained. All are aware of Municipal Solid Waste rules and there are enough funds for maintaining protection gears, but alas this takes place only on paper.

4. Share innovations made in related areas to dignify the profession of conservancy staff.

We have come across only stray instances where good principles and practices have been in force. One example was in 1990s at Surat, where there was widespread plague and the then District Collector, Dr. Rao did commendable work and went on to change the entire sanitation situation of the city. Some reports from Chennai about Exnora International, an NGO doing good work are also there.

We have been spreading the concept of bio-composting of cleaner bio-wastes wherever possible in institutions and use compost/ manure for sustainable organic farming.(Bio-wastes from gardens and horticulture is termed as clean while other bio-wastes such as food remains and kitchen wastes are termed unclean.) This would reduce some load on the solid wastes to be handled in a city level. On the aspect of dignifying the profession, we can give some suggestions:

- The staff and the supervisors should have the mobile number of the engineer in charge at the waste dump or the handling site to enable quick action in case of an emergency.
- The staff should be periodically motivated by verbal and other appreciation by Resident Welfare Associations, along with an encouraging word from the local councillor at local functions. This encourages them to perform better.
- Local level senior citizens groups can take stock of all these activities.
- Token gifts like working clothes, jackets, gloves etc. may also be gifted.

Data contributed by the Water Community Members may do a lot of good to conservancy workers.

Happy compiling and data dissemination.

Bharati Joshi, Ashoka-Innovators for the Public, Jaipur

The Hindu newspaper today (dated January 20, 2007; p.14) carries information on a self-employment scheme on the anvil for manual scavengers, titled "Self Employment Scheme for Rehabilitation of Manual Scavengers". The scheme will be implemented by the Ministry of Social Justice and Empowerment, and will involve providing subsidies and loans to manual scavengers for taking up self-employment ventures. The beneficiaries will also receive training for up to one year in skill development.

Under the scheme, it is envisioned that each individual scavenger and his/her children (more than 18 years and not employed) will be identified and rehabilitated. Credit will be provided by the banks, while the National Safai Karamchari Finance and Development Corporation (NSKFDC) or some other agency at the apex level will provide interest subsidy to the banks through the State Channelising Agencies (SCAs) for the difference between the interest chargeable by the bank and the interest to be charged from the beneficiaries under this new scheme.

- For projects up to Rs. 25,000: rate of interest will be 4% p.a. for women beneficiaries; 5% p.a. for men; period of repayment will be three years.
- For projects above Rs. 25,000: rate of interest will be 6% p.a.; period of repayment will be five years.

Both term loans (up to Rs. 5 lakh) and microfinancing (up to Rs. 25,000; through SHGs and NGOs) will be admissible under the scheme.

Credit-linked capital subsidy will be provided upfront to the beneficiaries in a scaled manner.

The newspaper article also gives a figure of 7,70,338 for the total number of manual scavengers and their dependents in the country, of whom 3,42,468 remain to be rehabilitated (under the National Scheme for Liberation and Rehabilitation of Scavengers).

Rahul Banerjee, Aarohini Trust, Indore

The political analyst Barbara Harris has commented that in India, the borderline between private space and public space is demarcated by garbage! This is the biggest problem. If we all decide to deal with our garbage ourselves instead of throwing it out onto the streets then 90% of the problem will be solved.

For example, in our office in Indore, all garbage is segregated into bio-degradable and non-bio-degradable waste. The bio-degradable-waste is made into compost and is used in our garden. In the absence of any better method at present we are burning the non-bio-degradable stuff (which is mostly plastic, whose incidence also we try to reduce by bringing in as little of it as possible when buying things). Toxic Links, an

NGO in Delhi has initiated a very successful project in which the municipal corporation and the residents of Defence colony (if I am not mistaken) have come together to dispose the solid waste in their colony in a decentralized manner. Thus the need is to motivate citizens to dispose of their waste themselves in a better manner rather than throw it into the streets and then expect the conservancy staff to clean it.

[Kumar Saket](#), Center for Urban and Regional Excellence, Agra

Alok Pandey has raised a very valid point about Sanitation workers being employed on contract basis. Based on my experience of working with them in Agra and previously in Haryana and Himachal Pradesh, I feel they are the ones who are exploited by contractors. Most of the Municipal bodies, after outsourcing the job of sanitation to private contractors, generally forget about it and are only concerned with the result/output. They fail to understand – and in fact deliberately put aside - the *Headache* of being concerned for the conservancy workers, their salaries, leaves and other social security covers. In most places especially in Small and Medium Towns, sweepers get paid less than the daily wage rate decided by the state.

As for contractors, most of the times they employ a lesser number of staff but show a greater number on records. I wonder if there could be any checking mechanisms or regulations to control such autonomy of the contractors.

[Sujit Choudhury](#), PAN Network Pvt. Ltd., Kolkata

It is interesting to hear the comments from various parts of the across the country regarding the condition of conservancy staff in municipalities and other areas. The picture is the same across the country.

We are associated with the draft development plan of Titagarh Municipality and we found that the scenario here is no different. We think two issues raised in Ms Das's mail need to examine closely:

1) The social status/caste-group of conservancy staff in municipalities remains the same as described by Mahatma Gandhi during his time or before that. Changes can be brought about through social reforms, along with the economic empowerment of this group.

2) Municipal reforms are currently envisaged more as economic reforms to move towards market economy. From the post independence period until the current reforms, permanent municipal conservancy staff was earning better and had a permanent job in hand. But the present emphasis on outsourcing conservancy work is bringing the old situation back as contractors will get the job done as cheaply as possible by cutting wages of the poor people in this particular group. As a result, slowly the municipality reforms will lead to a worsening of the the conditions of many of these groups.

Therefore, I feel that the municipal reforms must address such social discrimination through powerful tools including mechanisation for cleaning of solid wastes and use of specific hazard-proof gears. Outsourcing may be done only within specific norms to prevent exploitation of those with the poorest economic and social status. No one is interested in calculating the economic returns of the service provided by ragpickers. The reforms must incorporate the true value of this work, and not take the existing market labour cost. Unfortunately, such issues are not addressed in the municipal reforms in most parts of the country. A policy shift is required along with reforms to address this problem.

[Radhika K. Jung](#), UNIFEM, New Delhi

First of all, I would like to thank Aparna for bringing up such an important and oft neglected issue.

I would like to share some of my insights, in the context of this query on the status of conservancy staff in Mumbai. Here, I would highly recommend the work of an active trade union called Kachara Vahatuk Shramik Sangh, with whom I was associated actively for an year. This Union of the hitherto unorganized dumping workers and *safai kamgars* for over a decade has fought for the rights of the conservancy workers who are working for the Brihanmumbai Municipal Corporation. The Union had also filed a PIL in the Bombay High Court for regularizing these workers who for years had not been regarded as regular Municipal workers. The salary of these workers was less than Rs. 3,000 a month while the regular BMC worker would earn around Rs. 8,000.

The PIL also lucidly brought out the deplorable working conditions in which these workers worked without any safety equipment like gloves, masks, uniform or clean water to wash up. These workers were also subjected to discrimination and ill-treatment as they were not allowed to use public transport or even buy a cup of tea as they were unable to wash themselves after completing their work shifts, which included sifting through, and clearing human and animal waste. They were thrown off buses and trains, as co-passengers could not stand the stench that emanated from their clothes. Besides, their handling of various kinds of wastes, including bio-medical wastes without any protection makes them susceptible to various diseases.

Thus, there was a gross violation of their sense of dignity, and their right to safe and humane working conditions. The High Court ruled in their favour and now the workers, the original applicants on whose behalf the Union was fighting the case, have been regularized by the BMC. The Court has ordered that redressal steps be taken and as a consequence safety gear has begun to be provided to these workers. Water for washing up is also now available at their worksites. For more details on the PIL and KVSS, Milind Ranade, the General Secretary or/and Dr. Moulisri Vyas of Tata Institute of Social Sciences (TISS), Mumbai can be contacted.

The caste dimension with regard to this work is extremely pertinent and it gives a lever into the understanding of the politics behind this profession in terms of recruitment, and the larger issue of municipal reforms and welfare of Dalits. This profession is predominantly being done by the "lowest" and most marginalized castes, which further reinforces their excluded status.

Most of these workers suffer from low self-esteem and a sense of shame about their work. Coming from the lowest and most backward castes adds to this sense of alienation, despair and frustration on the part of these workers. While working with numerous families of such workers in different slums of Mumbai, on the issue of alcoholism, drug addiction and domestic violence, I found that the demands of this profession and the very low regard it has in society often made them take to alcohol and drugs in despair and despondency.

It was also seen that these workers suffered from various diseases, and many of these workers were also heavily into debt, thus being caught in a vicious cycle.

Manual scavenging done traditionally by Dalits is still widely prevalent, despite governments banning it on paper. For example, the abhorrent system of dry latrines, wherein people hailing from particular castes and communities clean human wastes by hand is still common in different parts of the country. For a good detailed state wide study on dry latrines, which even has the government support in states like Maharashtra and Gujarat, please get in touch with Mr. Sailesh, lecturer at TISS and Dr. Beck , head of the department, Urban and Rural Community Development, TISS.

[R. Sreedhar](#), Environics Trust, New Delhi

Aparna's query has become so topical because of the recent Gujarat High Court verdict, which specified measures for improving the condition of the conservancy staff. Currently, several other forces seem to be converging to address this vexatious problem in urban areas. While a lot of other structural determinants exist, focusing on this specific query, our experience points out to the following aspects:

1) Status of conservancy staff:

The huge staff with complex contracts in Municipal Services has emerged due the following factors:

- Transition from villages to urban areas in the peripheries as a constant phenomenon
- Severe nepotism in corporations causing socially and educationally unsuitable conservancy staff appointments - leading to non performance and the emergence of surrogate staff
- Emergence of market for some wastes leading to vested interests
- Huge discrimination still exists against the lowest conservancy staff

These underlying aspects were also brought out in the KMSS workshop recently to expose other organisations on the Gujarat verdict and the plight of the workers. If our intention is to professionalise conservancy operations as against patronising conservancy workers, we need to understand these aspects in every context.

2) Hazards and protection

It is unfortunate that in the last century there has virtually been no significant breakthrough in urban sanitation technologies. Technology improvement and innovation is a must - as against borrowing technologies from elsewhere - because these are legacy systems. Our experience is that the workers are only too aware of the hazards and it is pressing livelihood needs that force them to choose these occupations.

3) Recommended Mechanisms

Though the High Court has given some reprieve in specifying some of the precautions, it is necessary that they are linked to the Employee State Insurance system. Unless protective gears are properly made these become another risk factor. We must decentralise the task and every community must find a way of treating it. The more waste accumulates, the greater the costs and other risks to the staff as well as the system itself.

S. Ramesh Sakthivel, WES-Net India, New Delhi

It is interesting to note the effective discussions on this query.

First of all, solid waste disposal must be considered as an important urban and small town element in the programmes and not to be treated as a sub component, as it is being done today (water and infrastructure projects get the maximum focus). This is vital as it affects the whole urban environment apart from causing problems such affecting health of conservancy staff, clogging of drains/sewers, difficulties in the treatment/disposal process and many others.

Therefore, it is important that mechanisms to deal with this are put in place. The involvement of households who are the primary producers of waste must have highest stake in the whole process to make it a success. We all know that simple practices such as selling of old newspapers, plastics and polythene milk sachets are being successfully practiced by number of households and more importantly the households have started considering waste as a resource. In the same way, mechanisms to ensure that waste produced at households is treated/handled as a resource need to be explored.

The example of exemption of house tax to households handing over garbage at a collection point practiced by Panchayats in Maharashtra State is worth considering. Such incentives could be worked out considering the overall damage caused by the improper waste management systems that are operational today (May be a packet of Milk in the morning in lieu of a basket full of waste deposited properly! Just a wild suggestion).

At the end of the day, if households stand to gain directly, they will put in some extra efforts in sorting and disposal of wastes.

Surekha Sule, National Institute of Rural Development, Hyderabad

I worked on the Best Practices manual for Solid Waste Management (SWM) for City Managers Association of Maharashtra (CMAM), which describes the SWM practices in some of the cities of Maharashtra and a few outside Maharashtra. Very few cities have complied with the MSW Rule 2000 in toto and compliance has been mostly in bits and pieces. Toxics Link too came out with a study on SWM practices in some Indian cities. What is observed in general is that there is a very low level of awareness among civic bodies about MSW Rule 2000 and its implementation deadline of Dec 2003. As a result, it is more of a governance issue on the part of the authority and the people's participation angle is totally lost. Hence a question of right size of conservancy staff etc comes up. The rule also spells out the terms & conditions of the sanitary staff including ragpickers who should be integral part of MSW management with people's participation.

C. Tamilselvan, Sampoorana Arakattalai, Thanjavur

I would like to share my points on the topic posted for discussion.

Once, our finance Minister P. Chidambaram pointed out in a Private Hospital inauguration that personal hygiene is good in India, but public hygiene is poor- and that if we maintain our personal hygiene without harming public hygiene, most of the health hazards will be minimum.

All of us must take efforts in taking up disposal of solid and other waste at our home itself, and not throw it away on the streets, roadsides or near the compound wall of others.

This awareness could be built from school children itself, and habits must be inculcated at younger age, so that future generations will become sensitive to waste disposal system at source point itself.

Instead of burdening the sanitation personnel, who are mostly from "lower" castes, if we dispose it judiciously, we can make a cleaner environment for all of us. I know that sanitation personnel consume alcohol in order to do this work, and even women workers became dependant on alcohol and drugs. It is a sorry state of affairs in our country to see such inhuman practice being encouraged. Production of polybags should be banned at once to prevent accumulation of poly materials waste in cities, small towns, and suburbs in large quantities.

It is ironical and impractical to expect a few hundreds of sanitation personnel, working in corporations, municipalities or town panchayats to dispose wastes disposed by lakhs of people.

Let us begin at our home and we will achieve the end.

D. Rayanna, Andhra Pradesh School Health Association, Secunderabad

I have been reading various suggestions and ideas on the subject with great interest.

One thing I would like to share with you.

Under the Andhra Pradesh Urban Services for the Poor (APUSP), the Municipal Administration Department, Government of AP, have taken up a series of training programmes for public Health workers and staff for a number of municipalities.

1. It is for the first time that such training has been provided. So far only one meeting of the staff has been held but this has really made them feel that their job is as important as any other officer in the municipality. They keep the city in good health, and have a greater sense of satisfaction.
2. They need people to listen to them and appreciate their work as they work in odd conditions. Their work should not make them sick, bring illness and therefore they need to be provided tools that would make their work easy, less cumbersome and free from health hazards.
3. They need safety on the roads, need an identity (e.g. through uniforms for all workers) since all workers whether permanent, temporary or on contract are involved in doing the same work, but may be paid less.
4. After the meeting, they felt they are equal to others and own the town as much as others.
5. Group discussions made them share their problems, difficulties and to suggest ways and means to overcome them.

In each of these municipalities, such workers number around 400 to 800 workers (sweepers, drain cleaners etc.)

Ravinder Nath, Indian Mountaineering Foundation, New Delhi

Conservancy staff play a very important role in keeping cities clean and have a lot of impact on the look of any place. Cleanliness is also mirror of environmental conditions of any area.

They should be properly equipped with gum boots, gloves, appropriate clothing, cleaning material and tools to be able to segregate different types of waste material. It will be better to use special fully covered transport, which can compress garbage.

Once a while, in six months or so, demonstration of correct use of tools & appliances can be done before the staff and a talk can be held for them. Since most conservancy staff are illiterate and also include their family members for the same job, the Government or NGOs should provide some educational facilities in the afternoon /evening or at times suitable to them rather than in normal school time, so that the future generations of these staff can improve their social standards.

Where ever possible conservancy services should be on contract and privatized, as the efficiency of the private sector has constantly shown improvement because of competition. However, the special needs of the conservancy workers even in contracts should be looked after, as specified earlier.

Harshad Gandhi, Excel Industries Ltd., Mumbai

I have been associated with Municipal Solid Waste (MSW) Disposal issue in India for over 15 years. If we analyze waste disposal issue in conjunction with health hazards, we will realize that it is the organic components of Municipal Solid Wastes which are a major cause for concern. If we do not treat the organic fraction of MSW, it becomes a breeding ground for harmful pathogens, which cause the risk of diseases & epidemics through disease carrying vectors, which get attracted to garbage due to foul odour emission during putrefaction of organic waste.

Excel Industries Ltd. has developed Community based Organic Waste Converter (OWC) which homogenizes waste with bio-culture & organic media and converts the waste into a coarse powder, making waste free from foul odour; repels flies, mosquitoes, rats, animal, birds; and controls leachate in batch cycle of 15 minutes.

The waste treated in the OWC System accelerates the composting cycle and after curing period of 10-15 days, the waste gets converted into compost and can be utilized for increasing urban green cover.

The OWC System provides a sustainable solution for organic waste treatment at community level; thereby eliminating risk of health hazards to conservancy staff handling the waste. If the Urban Local Body (ULB) can support such a program of decentralized waste treatment, it will not only minimize risk of health hazards but can also be developed into a Micro-Enterprise Model for decentralized waste solution services - where conservancy staff can be gainfully employed with dignity. Thus using OWC System for waste solution we can address two issues viz.

- Eco-friendly disposal of Organic Waste and
- Alleviation of urban poverty through Micro-Entrepreneurship Development Program.

The project requires 40 sq. meter area for 500 kg per day of waste generation. Assuming 5,000 people generating organic waste of 500 kg per day, the project cost would work out to approximately Rs. 250 per capita for infrastructure and the recurring Operating Cost would work out to approximately Rs. 5 to 8 per capita per month. It is assumed that ULB will provide land for the project at decentralized location and segregated organic waste (which is cause of health hazards) will be delivered to OWC Center by existing conservancy staff, while some of them can be trained for Operation & Maintenance of OWC System.

We are currently looking for a project sponsor under Corporate Social Responsibility or Grant under Government scheme. The minimum economical project for this needs about Rs. 12.50 lakhs for project infrastructure cost plus recurring cost of Rs. 3.60 lakhs for the first year. It is envisaged that with the participation of all stakeholders, the project will mobilize beneficiary participation and advertisement revenue to sustain recurring expense within a period of one year.

Alok Srivastava, UNDP, New Delhi

1. The Government of India has initiated a National Scheme of Liberation and Rehabilitation of Scavengers and their Dependents. This scheme is primarily concerned with freeing the scavengers from their inhuman occupation and to provide them with alternative and dignified occupations within a period of five years. This scheme was launched on 22 March 1992. The government revised the guidelines and issued them in 1996. To read the original guidelines, the revisions made therein and the progress of the same in 1996, please see following links:

<http://www.solutionexchange-un.net.in/environment/cr/res11010701.pdf> (Size: 944 KB)

<http://www.solutionexchange-un.net.in/environment/cr/res11010702.pdf> (Size: 174 KB)

<http://www.solutionexchange-un.net.in/environment/cr/res11010703.pdf> (Size: 67 KB)

2. The Government of India has also set up the National Safai Karmachari Finance and Development Corporation in 1997 with the objectives as given in the following link:

<http://www.solutionexchange-un.net.in/environment/cr/res11010704.pdf> (Size: 158 KB)

3. The Ministry of Social Justice and Empowerment have recently started a new Scheme of Self Employment for Rehabilitation of Manual Scavengers for assisting them in a time bound manner by March 2009. The identified beneficiaries will be provided assistance for rehabilitation through training, loan and subsidy. Credit will be provided by banks, which will charge interest from the beneficiaries at the rates prescribed under the scheme. For details, see following link:

<http://www.solutionexchange-un.net.in/environment/cr/res11010705.pdf> (Size: 314 KB)

The thrust of all the schemes is to provide economic rehabilitation package to the Safai Karmachari after their release from the inhuman occupation of scavenging. This problem is especially evident in small and medium towns where conservancy work is still carried out by such people.

Many thanks to all who contributed to this query!

If you have further information to share on this topic, please send it to the Water Community at se-wes@solutionexchange-un.net.in and/or the Decentralization Community at se-decn@solutionexchange-un.net.in with the subject heading "Re: [se-watr] [se-decn] Query: Conservancy Staff and Municipal Sanitation-Experiences; Advice. Additional Reply."

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