

UN Independent Expert's Consultation with water and sanitation service providers

November 2-3, 2010

**at
Lisbon**

Human Rights' Perspective Related to Sulabh's Sustainable Technologies on Water and Sanitation

by

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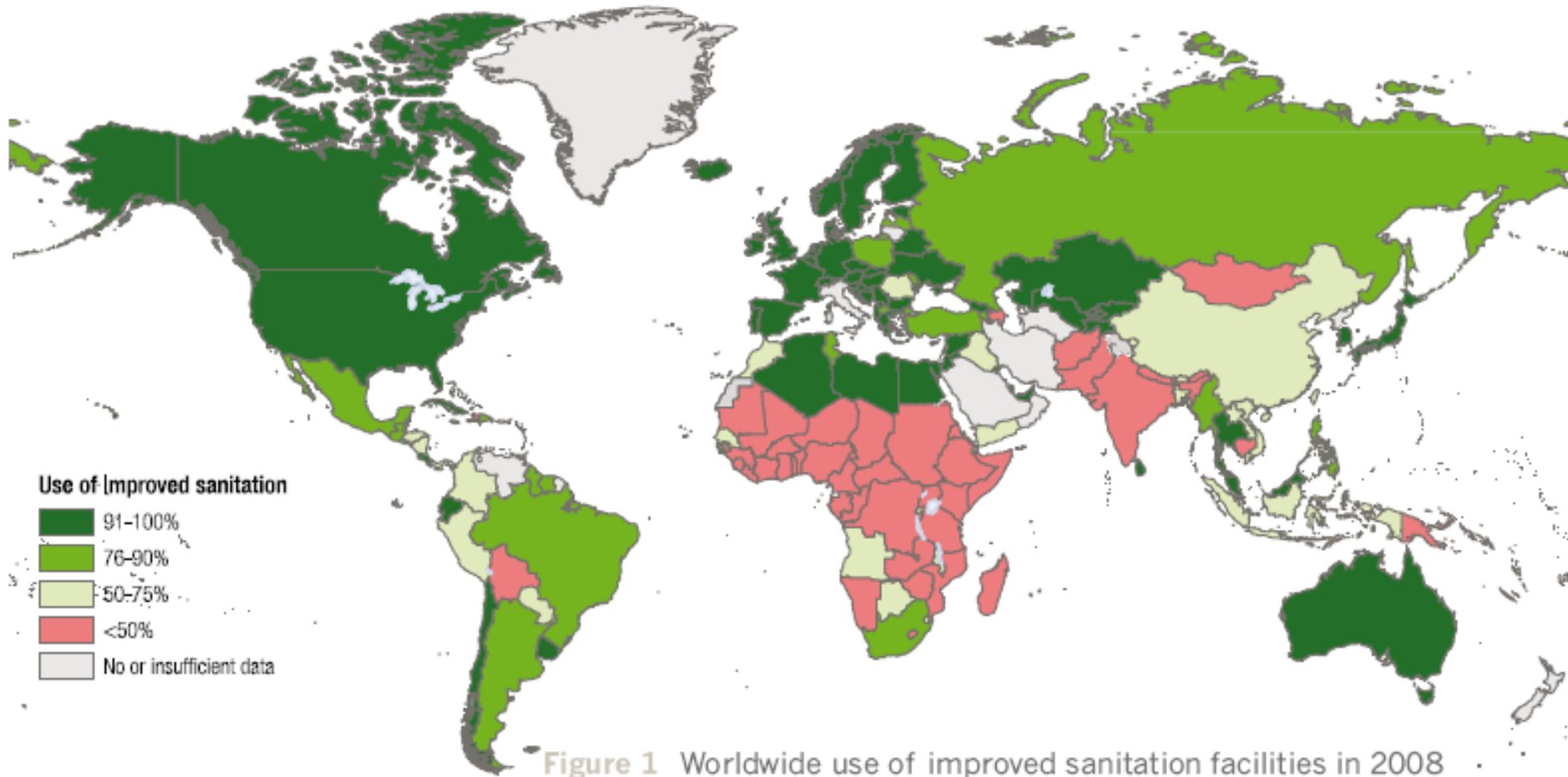
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2.6 Billion People Do Not Use Improved Sanitation

Use of improved sanitation facilities is low in Sub-Saharan Africa and South Asia



Source: WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation – 2010 Update.

Proportion of population using improved sanitation facility – UN MDG Indicators 2008

Improved sanitation facility (%)	No. of Countries	Total No. of Countries
Less than 9%	03	1- 49% - 50 Countries
10 – 19%	08	
20 – 29%	10	
30 – 39%	17	
40 – 49%	12	
50 – 59%	12	50 – 89% - 49 Countries
60 – 69%	07	
70 – 79%	13	
80 – 89%	17	
90 – 99%	38	90 – 100% - 63 Countries
100%	25	

Sanitation Status – India

Census	Total Coverage (%)	Urban (%)	Rural (%)
1971	15.70	50.00	Insignificant
1981	18.70	58.15	Insignificant
1991	23.70	63.85	9.48
2001	36.40	73.70	21.90

Year	Urban (%)	Rural (%)
2008	63*	57**

* Source: CPHEEO, Ministry of Urban Development, Government of India.

** Source: Department of Drinking Water Supply, Ministry of Rural Development, Government of India .

DISPOSAL OF HUMAN WASTE

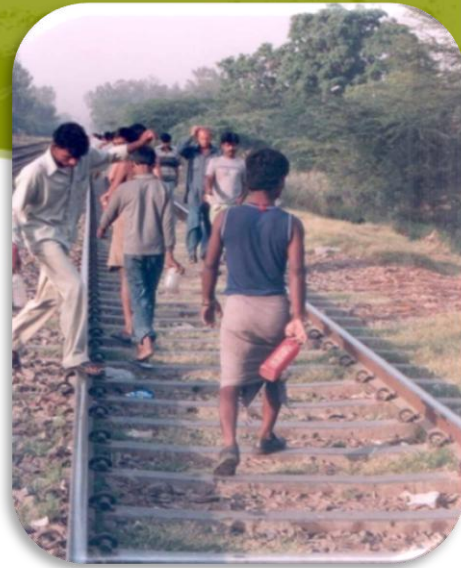
- The disposal of human waste has two components:
 - (1) **The System** and the other;
 - (2) **Equipments**
- There are two systems of disposal of human waste:
 - (1) **Centralised System**. Example – Sewerage
 - (2) **De-centralised System**. Example – Septic tank, Sulabh two-pit, pour flush, compost toilet and Sulabh Biogas digester with effluent treatment plant.

DISPOSAL OF HUMAN WASTE

- There are few more technologies in the decentralised system but they are not established ones.
- In sewerage system, after flush, the human excreta is carried away by water to a longer distance and then human waste is treated. The cost of construction & maintenance is very high and it requires enormous quantity of water to flush.
- Therefore only Europe, United States of America and Australia could adopt this system.
- The countries of Africa, Asia and Latin America could not adopt.

SANITATION SCENARIO

- In the late sixties, when Dr. Bindeshwar Pathak came on the sanitation scene in India, no house in rural areas had a toilet.
- Women were the worst sufferers because of lack of toilets. They had to go out for open defecation in the dark – before sunrise or after sunset. Their dignity was put to risk when subjected to criminal assaults or snake bites.
- More than fifty diseases have been reported because of defecation in open due to lack of toilets such as diarrhoea, dysentery, cholera, typhoid etc.



SANITATION SCENARIO



- Child Mortality Rate was very high.
- Drop-out of girls from schools was high because of no toilets.
- No house in rural areas had a toilet.
- In urban areas, only 15% of the population used septic tanks and a large number of people used to go outside for defecation. The remaining population had dry/bucket toilets, cleaned manually by 'human scavengers'. who used to also carry the human excreta manually. They suffered all sorts of insults and humiliation because of their dehumanising work.
- Public places like railway stations, bus stops, religious and tourist places, had no provision of public toilets.
- Hence foreign tourists had to face a lot of difficulties because of absence of toilets and were discouraged to visit India.

Disposal of Human Waste

Improper disposal of human waste pollutes water bodies, groundwater and land surfaces, causing great risks to health and impacts productivity and national economy. It adversely affects the overall quality of life of those living in the vicinity and increases health risks during natural disasters like floods, earthquakes, etc.

To find a solution to the above problems we need to decide whether we should apply indigenous knowledge which is affordable or look for outside, high-tech systems like the sewerage system, for better disposal of human waste, which is costly and unaffordable for developing countries.

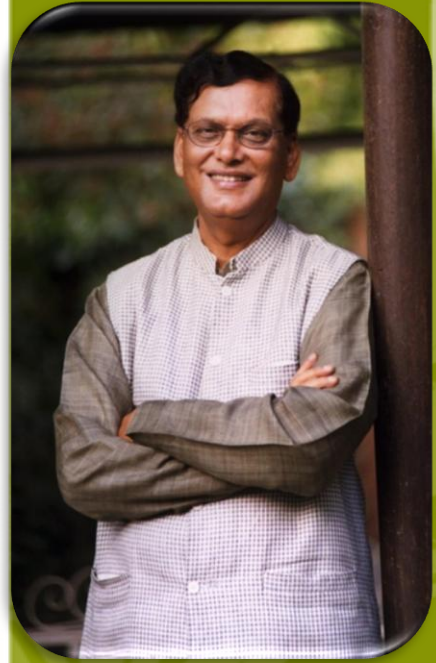
The Unfathomable Plight of Scavengers!!



The appalling hardships, humiliation and exploitation the 'human scavengers' (those who perform the inhuman work of cleaning and carrying human excreta manually as head-load for its further disposal) faced, have no parallel in human history.

Sulabh Sanitation And Social Reform Movement

To overcome the problem of human scavenging and safe and hygienic disposal of human waste, Dr. Pathak invented, innovated and developed five technologies. Out of which, he will discuss two Sulabh Sustainable Technologies.



- I. **Sulabh two- pit, pour-flush, compost toilets.**
- II. **Public toilet complexes linked with biogas digester and on-site effluent treatment system .**

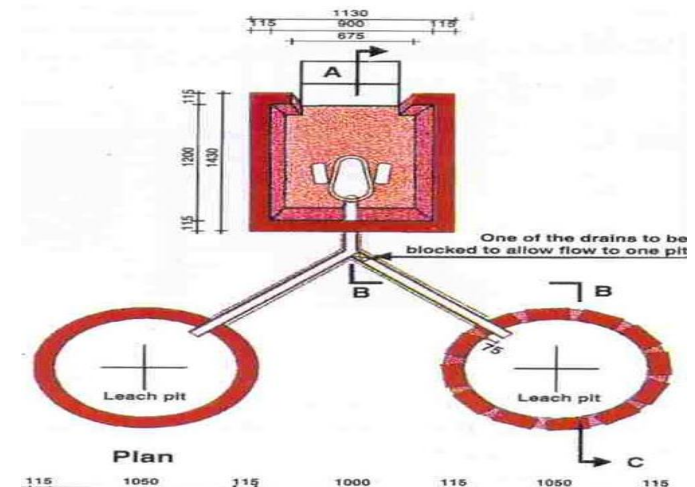
On-site Technology for Sustainable Sanitation

Sulabh two-pit, pour-flush, compost toilet

- In the above toilets there are two pits, one used at a time and the other is kept as standby. When the first pit fills up, the excreta is switched over to the other one. Both the pits are used alternately. In the first pit after a period of two years, human excreta gets converted into manure.



Sulabh Toilet with circular pits.



Water-seal or P -trap of Sulabh toilet

- As water-seal or trap used in a Sulabh toilet is of 12-20 millimetres, therefore it requires only 1-1.5 litre of water to flush per use. So it saves enormous quantity of water compared to sewerage or septic tank systems where-in 10 litres of water is used for flushing per use.



Affordability

The Sulabh two-pit toilets can be constructed from US \$ 10 to US \$ 500, depending on the number of family members, size of the pits to be constructed, design of the superstructure, which is flexible with many options, as well as affordability of the householder. Even the poor can afford to have a toilet constructed in his/her house.

Different designs of Sulabh two-pit, pour - flush, compost toilet



Cost – US \$30 (Rs. 1500)



Cost – US \$35 (Rs. 1750)



Cost – US \$32 (Rs. 1600)

The cheapest toilet with jute on all sides on bamboo frame



Cost – US \$50 (Rs. 2500)

Superstructure made of thatched palm matting – affordable for poor people.



Cost – US \$53 (Rs. 2650)

Thatched wall with roof on bamboo frame



Cost – US \$145 (Rs. 7250)

Brick wall with no door.



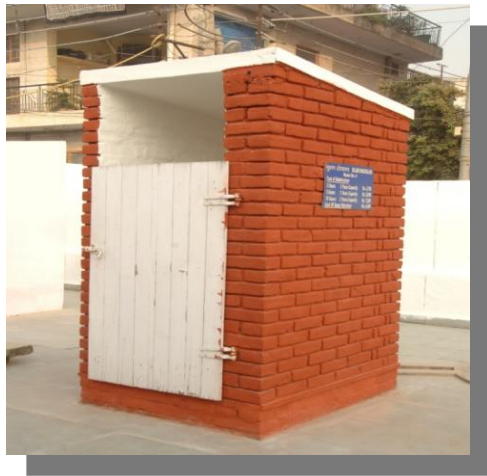
Cost – US \$152 (Rs. 7600)

Brick wall with jute curtain.



Cost – US \$160 (Rs. 8000)

Circular design without door and roof for people who feel claustrophobic.



Cost – US \$185 (Rs. 9250)

Toilet walls made of bricks with roof and wooden door- more expensive.



Cost – US \$190 (Rs. 9500)

Brick toilet for those people who can afford to spend more money



Cost – US \$1100 (Rs. 55000)

Even the rich can get constructed Sulabh two-pit, pour flush toilets where there is no sewerage. The pits can be cleaned after 40 years.

Panoramic View of Different Designs of Sulabh Two-Pit, Pour-Flush, Compost Toilets



In the Sulabh two-pit technology there is flexibility of design which the beneficiary can choose depending upon his affordability and size of family.

Accessibility

- The two-pit toilets are either constructed in or near the house, even where there is very little space, in the courtyard or on the upper floor of a house.
- Locally available raw materials such as bricks, stones, logs of wood etc. are used for the lining of the pits.

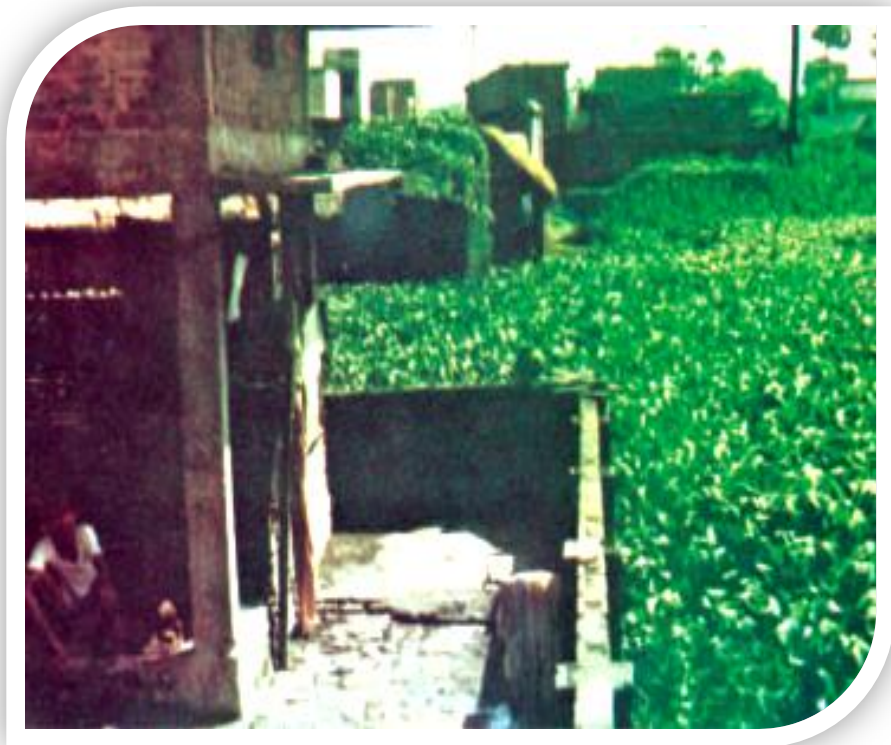
The Sulabh toilet can be constructed in the minimum possible space



Sulabh pour-flush toilet for linear space with common dividing wall in a narrow lane



Sulabh pour-flush toilet for least space with the toilet on top of the pits



The Sulabh toilet can be constructed in areas where the water-table is high, in waterlogged, flood prone and high sub-soil water areas where the pits could be raised.



Sulabh toilets can be constructed in the upper floors of buildings.



Taking out of manure from pit of a Sulabh toilet



Manure from Human Excreta

- The manure is taken out from the pit by the beneficiaries without involving scavengers as it is odourless, pathogen-free, semi-solid containing 1.8% nitrogen, 1.6% phosphate and 1% potassium.

The manure is a rich fertiliser and soil conditioner which improves the productivity of the field and fruits and flowers, when used for agriculture/ horticulture.



High yield of fruits



High yield of crops

Advantages of Sulabh two-pit, pour flush, compost toilet

This makes it environmentally sustainable. It is scientifically appropriate, eco-friendly, economically affordable, culturally acceptable and conserves a lot of water. As the excreta of the pits is collected alternately, no 'human scavengers' are required to clean and carry the human waste as head-load. This technology was affordable compared to the earlier sewerage and septic tank technologies prevalent in India which were expensive and limited to few cities.

Quality/Safety



Hand-pump

15 feet



Sulabh two-pit, pour flush,
compost toilet

30 feet



Well

- The Sulabh two-pit toilet is free from all health hazards and does not pollute ground water or drinking water sources like hand pumps, wells etc. if proper precautions are taken in its construction.
- It meets all the standards of a hygienic sanitary toilet as laid out by WHO. It is scientifically and technically appropriate as well as eco-friendly. There is no odour as the pits and drains are covered and sealed. The water-trap underneath the toilet pan prevents any gases from the pits exiting into the atmosphere. The human excreta decomposes into manure which is pathogen-free.

Accessibility

The Sulabh toilets are cost-effective and accessible to all. As the technology is not patented, anyone can get Sulabh toilets constructed in their house. The proximity to a toilet ensures prevention of physical or criminal assault or snake bites to women and girls who are otherwise forced to go out for defecation in the open before or after sunrise. It also provides them and people with special needs, privacy and dignity in the use of toilet.

Non-Discrimination

The Sulabh two-pit, pour-flush, compost toilet ensures non-discrimination of the most marginalized in society. Dr. Pathak invented, developed and got the technology replicated on a large scale, and helped rid the practice of cleaning and carrying human excreta on head-load by 'human scavengers', who were earlier looked down upon and discriminated against for centuries. They were the lowest of the low in society and treated as 'untouchables' because of their dehumanizing work.

Non-Discrimination

In Sulabh toilets 'human scavengers' are not needed to clean and carry the human excreta as has to be done when cleaning dry/bucket toilets. They have been thus relieved from doing the inhuman job of cleaning dry toilets and carrying human excreta as head-load. Over the last four decades more than a million scavengers have been liberated. They have been rehabilitated after being imparted vocational training and education.

Only about 40,000 scavengers remain today in India. Now they eke a living for themselves and their families through the products/eatables made and sold by them in society, bought even by the households where they did the work of scavenging earlier. They are treated on a par with others in society after being brought in the mainstream of society and their human rights and dignity have been restored.

Availability

In the last forty years the Sulabh two-pit toilets have been constructed in 1.2 million individual houses throughout India by motivating the householders to get toilets constructed/bucket toilets converted in their houses and more than 54 million toilets on the same design have been constructed by the Government of India.

Public Toilet Complexes at public places constructed by Sulabh International, where there is high floating population, ensure sanitation facilities which are easily accessible to people of all castes and creed and rich and poor alike, at a very nominal cost, which the users are more than willing to pay. More than 7,000 public toilet complexes have been set up in public places – markets, bus-stops, railway stations, religious and tourist places, etc. in 1499 cities/towns in 25 States and 4 Union Territories of India. Separate toilets for boys and girls have also been constructed in schools to prevent drop-out of girls.

Environmental and Social Sustainability

Because of the following advantages of Sulabh twin-pit, pour-flush, compost toilet, it is environmentally and socially sustainability.

- It is hygienically and technically appropriate and socio-culturally acceptable.
- It is affordable and easy to construct with locally available materials.
- The design and specifications can be modified to suit the householder's needs and affordability.
- It can be constructed in different physical, geological and hydrological conditions.
- It is free from health hazards.
- The maintenance is easy and it costs little money.
- It needs only 1 to 1.5 litre of water for flushing, while conventional flush toilet needs 12 to 14 litres of water.
- It needs less space than a septic tank toilet system.
- It can be easily connected to sewers when introduced in the area.
- A low volume flushing cistern could be attached to avoid pour flushing.
- It does not need scavengers for cleaning the pits or disposal of sludge as this can be done by the householder.

Sulabh Public Toilet Complexes

- In 1973, Dr. Bindeshwar Pathak introduced the system of maintenance of public toilets on “*pay and use*” basis. Initially there were skeptical views about the functioning of the technologies and its success.
- But on the very first day 500 people used the public toilet in Patna.
- However It took him several years to convince the Government and the people.
- Earlier people were not habituated to paying for the use of public toilets but now they pay a nominal amount for use of the toilets and bathing facilities in the public toilets.

Sulabh Public Toilet Complexes



Largest Sulabh Toilet complex in the world at Shirdi (Nasik), Maharashtra, India.

Funded by SHIRDI TRUST, constructed and maintained by Sulabh International Social Service Organisation, it has 148 toilets with dressing, baby sitting, breast feeding facilities and 108 number of bathrooms, 5,000 lockers for keeping the belongings of pilgrims. The complex is lit by the electricity from the bio-gas generation from the human excreta. 50,000 persons can use these facilities daily.



CONSTRUCTED SULABH TOILET COMPLEX AT CIRCULATING AREA OF BILASPUR RAILWAY STATION BY SOUTH EAST CENTRAL RAILWAY IN CHHATTISGARH



A view of Sulabh Toilet Complex at Sanaganeri Gate, Jaipur, Rajasthan



Wash Basin for Hand Wash – Inside view of Sulabh Toilet Complex, Delhi.



Dryer facility after washing hands – Ethiopian Ambassador to India, Her Excellency Ms. Genet Zewide using the facility at Sulabh Toilet Complex.



Child friendly Toilets known as “Bal Mitra Sauchalaya” - Inside view, Bhopal, India

Human Excreta Based Biogas Digester Linked To A Public Toilet



Recycling and Reuse of Human Waste

The other technology developed by Dr. Pathak is human excreta based biogas technology with effluent treatment plant linked to public toilets. From public toilets human excreta goes inside the digester and biogas is produced without any chemical, bacteria or change agents. Only 10-20 kgs. of cow dung is required to be put inside the digester on the first day of use. The biogas produced is then channelized for lighting mantle lamps, warming oneself in winters, cooking and also for conversion into energy for street lighting.

Use of Biogas



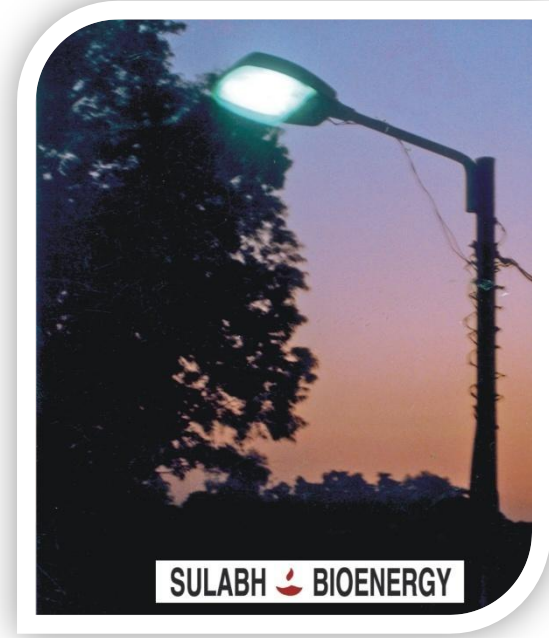
Biogas used for cooking



Biogas used to warm oneself in winter



Biogas used for lighting of mantle lamps



Biogas used for Lighting of Street Lights



Biogas used for electricity generation

- Initially, in the dual fuel genset 80% biogas and 20% diesel were required to run the engine, but now under the new system ignition of compressed biogas is done through battery operated spark system.

Sulabh Effluent Treatment Technology



Sulabh Effluent Treatment Technology



- The effluent discharged from public toilet, after treatment, becomes so pure that its Biochemical Oxygen Demand is less than one milligram per litre.
- This water is safe for discharge into rivers or water bodies, without polluting them. Hence, this also prevents pollution from the sewage. It can also be used for cleaning of floors of public toilets.
- Both these technologies are suitable for market places, housing colonies, high-rise buildings, public places, schools, colleges, hospitals etc.

Accountability

Sulabh International Social Service Organisation ensures accountability by having an organizational structure in which there is a clear delegation of responsibilities and co-ordination at different levels within the organization and with other partners involved. There is an Executive Committee as an all-India apex body with decentralized system of working in most states and districts of India. The Branch offices in the states, headed by State Chairmen, look after the construction of toilets in individual houses and public toilet complexes and the maintenance in their respective states.

Accountability mechanism at all levels during the process of construction as well as maintenance is ensured through capacity building of the associate members working at different levels of the organizational structure. Monitoring and evaluation of projects is undertaken after their completion. A Guarantee Card is issued to the householder on completion of the toilet construction. In case there are any defects within a period of 5 years, they are rectified free of cost, in the case of individual toilets.

Social Sustainability

Both the Sulabh sanitation technologies are socially sustainable, as water is used for ablution in both types of Sulabh toilets which is the culture and common practice in India. Thus, Sulabh has been able to improve the living conditions of the people, upgrade the environment, reduce diseases and break the vicious circle of ill-health, low economic productivity and poverty.

Acceptability

The Sulabh sanitation technologies are culturally and socially acceptable as water is used in the Sulabh toilets. Earlier talking of toilets and sanitation was taboo but Sulabh has been able to change the thoughts, attitudes and behaviour of the Indian people towards toilets.

The concept of untouchability is no longer attached to the profession of construction and maintenance of toilets. Now in India, people in urban areas construct and use individual toilets as well as use public toilets at public places. Both the problems of defecation in the open in rural areas and scavenging in peri-urban and urban areas has been tackled, thereby vastly improving the health of people through access to affordable sanitation facilities.

Benefits of Sulabh Sustainable Sanitation Technologies:

Women are now using toilets with safety and dignity instead of going out for open defecation before sunrise or after sunset in secluded areas.

Schools with toilet facilities enable children, especially girls, to continue their studies.

The mortality rate of children has gone down.

Bucket toilets have been converted into Sulabh toilets. The inhuman occupation of manual scavenging has reduced.

Benefits of Sulabh Sustainable Sanitation Technologies:

- In urban areas, now toilet facilities are available for people going to market places, religious places, tourist places, etc.
- Foreigners now have access to toilet facilities and do not face hardships.
- Now the entire country has accepted the technologies, methodology and delivery system developed by me because the technologies are sustainable.
- Now people pay for the use of toilets. We have been able to change the thoughts, attitude and behaviour of people towards toilets and those who used to clean toilets.

Impact

- The implementation of Sulabh on-site technologies throughout India has had tremendous impact on the environment and 'human scavengers' have been liberated from their dehumanizing work. 640 towns have been made scavenging-free.
- Sulabh has restored human dignity and given a new future to more than a million 'untouchable' scavengers by rehabilitating them in other occupations with educational and vocational training to bring them into the mainstream of society.

Impact

- Sulabh has upgraded the environment, saved billions of litres of water per day used for flushing and produced bio-fertilizer to raise agricultural productivity. Because of improved health, more than 130 million mandays have been created. The Sulabh sanitation technologies also substantially reduce global warming because of less emission of gases into the atmosphere. The above sustainable and cost-effective, patent-free technologies have been replicated, recognized nationally and internationally and recommended for world-wide replication.

Training on Sulabh Sanitation Technologies

- Sulabh trains Government and Non-government officials by conducting awareness programmes and short training courses.
- It gives training to NGOs on technology and on how to run an organisation and motivate the people.
- It also trains personnel of national, international agencies, donor agencies and financial institutions in the Sulabh technologies and ways to implement programmes so that the Millennium Development Goals regarding water and sanitation can be achieved by the year 2015 and 2025 respectively.
- It provides vocational training to under-privileged sections of the society, especially human scavengers, to equip them with necessary skills to help earn a livelihood and thereby enable them to stand on their own feet.

Replication

The Sulabh technologies have been recognized and recommended by the UNDP in the Human Development Reports of 2003 and 2006 for worldwide replication and by other international agencies such as United Nations, UN-HABITAT, WHO, ADB, UNICEF, World Bank, etc. as they have provided the technological solution for access to sanitation for the 2.6 billion people presently without the same and have provided human dignity to women and girls and a cleaner and more sustainable environment.

Nai Disha: An Initiative Towards Rehabilitation of Liberated Scavengers

To liberate and rehabilitate women hitherto engaged in the profession of scavenging till March end, 2003. 'Nai Disha' Vocational Training Centre was set up by Sulabh at Alwar, Rajasthan in April 2003. Later another centre was also started at Tonk.

A comprehensive 2-year training is being provided to women scavengers in food-processing, beauty-care, tailoring and embroidery, with a three year rehabilitation programme.



Economic Sustainability and Social Transformation



The social transformation brought about can be gauged by the incredible fact that the same society that was averse even to the touch of a scavenger, today readily purchases products (even eatables) prepared by the hands of these very scavengers'. This symbolises a fundamental change in the attitude nursed for centuries by the people.

SOCIAL INTERACTION



A monthly stipend of Rs. 2000 or US\$ 40 is paid to ensure that they do not return to their earlier profession. The stipend is directly put into their bank accounts which they operate themselves.

World Toilet Summit 2007, New Delhi, India



Mrs. Sushila Chauhan, shared the dais with former President of India, Hon'ble Dr. A. P. J. Abdul Kalam and addressed the gathering at the Inaugural Session of the World Toilet Summit at Vigyan Bhawan, New Delhi

World Toilet Summit 2007, New Delhi, India



The erstwhile women scavengers walked the ramp with the top models who showcased their handiwork at the World Toilet Summit 2007 in New Delhi

Mission Sanitation



HRH the Prince of Orange of the Netherlands felicitating erstwhile women scavengers, who were liberated and rehabilitated by Sulabh, with bouquets of flowers, lending prestige to the scavengers who cleaned human excreta manually till March, 2003.

- **HRH Willem Alexander, the Prince of Orange of the Netherlands**, Chairman of UN Secretary General's Advisory Board on Water and Sanitation, appreciated the work of Sulabh at the launch of 2008 as the International Year of Sanitation in November 2007 in New York and said:

“Sulabh International showed me a good example during my recent visit to New Delhi. This organisation has proved how effective small-scale solutions can be and how they can be extended all over India within a short time span. Thousands of ‘pay & use’ public toilet-cum-bath complexes and more than a million pour-flush latrines in private houses have been built (and are maintained), and they are used by more than ten million people every day. By doing so, Sulabh has restored human dignity and a new future to thousands of ‘untouchable’.”

Invitation by UN-ECOSOC in International Year of Sanitation to the United Nations



H.E. Mr. Vijay Nambiar, Chef de Cabinet of the Executive Office of the Secretary General of the United Nations, crowning Mrs. Usha Chaumar, an erstwhile women scavenger of Alwar, Rajasthan on July 2, 2008 at the event “Sanitation for Sustainable Development” in the United Nations at New York.

Mission Sanitation

The erstwhile women scavengers walked the ramp with the models who showcased their handiwork at the United Nations in New York on July 2, 2008. With this their social status went up.



Freedom at Last !



The liberated women scavengers showing the sign of 'V' for Victory as a sign of triumph, in front of the Statue of Liberty in New York, USA to show their liberation from the demeaning profession of cleaning dry privies and carrying human excreta (nightsoil) of others, to eke a living for their families.

Social Acceptability



The Hon'ble President of India, Mrs. Pratibha Devisingh Patil, crowned Mrs. Usha Chaumar in the Rashtrapati Bhawan.

Social Acceptability



Hon'ble Prime Minister of India, Dr. Manmohan Singh, giving audience to the erstwhile scavengers of Alwar, Rajasthan, who used to clean nightsoil earlier: and now after education and training have become self-employed and lead a life of dignity.

SOCIAL TRANSFORMATION- HAWAN CEREMONY IN THE TEMPLE PREMISES



Puja and hawan being performed outside the Jagannath Temple in Alwar, Rajasthan on December 21, 2008 by Dr. and Mrs. Bindeshwar Pathak, Mrs. Usha Chaumar and her husband alongwith other erstwhile scavengers of Alwar and Tonk, Rajasthan

EARTH MEETING THE SKY: COMMON DINING, AT ALWAR, RAJASTHAN



The dream of Mahatma Gandhi and Ambedkar fulfilled - on 21st December 2008, it seemed as if earth met the sky, when after centuries, untouchables dined with the same upper caste people who did not even allow them to enter their houses.

Traditional Welcome of Swedish Prime Minister at Sulabh



Erstwhile 'untouchable' and liberated scavenger of Alwar welcoming the Prime Minister of Sweden, H.E. Mr. Fredrik Reinfeldt, by applying traditional Indian style Tilak on his forehead. Seen also in the picture are his wife, Hon'ble Mrs. Filippa and Dr. Bindeshwar Pathak

“A Great Sign of Development – Important for the World!”

- Mr. John Fredrik Reinfeldt, Prime Minister of Sweden



His Excellency Prime Minister of Sweden Mr. Fredrik Reinfeldt and his wife Ms. Filippa along with Dr. Bindeshwar Pathak, giving audience to the erstwhile scavengers of Alwar, Rajasthan, who used to clean nightsoil earlier: and now after education and training have become self-employed and lead a life of dignity before.

Ambassador of U.S.A. to India in January 2010 at Sulabh Office in New Delhi



H.E. Mr. Timothy J. Roemer, Ambassador of U.S.A. to India and Ms. Sally Roemer with Dr. and Mrs. Pathak and the erstwhile scavengers who have been liberated and rehabilitated by Sulabh International.

HRH Princess of Belgium at Sulabh Gram on 23rd March 2010



Erstwhile 'untouchable' and liberated scavenger of Alwar welcoming the Her Royal Highness Princess Mathilde of Belgium, by applying traditional Indian style Tilak on her forehead.

Quality Education to Wards of Scavengers

Sulabh International Centre for Action Sociology runs Sulabh Public School:

- A premier English medium school.
- Recognised by Central Board of Secondary Education.
- There is a 60:40 ratio of children from scavenger community to other sections of society.
- Tuition fee is waived and free uniforms, books are provided to children of scavenger community.
- Students share lunch with one another.
- Messages of proper hygiene behaviour spread from children to parents and community.



Morning prayer at Sulabh Public School

HRH Princess of Belgium at Sulabh Gram on 23rd March 2010



Her Royal Highness Princess Mathilde of Belgium and Dr. Bindeshwar Pathak, Founder Sulabh Sanitation with students of Sulabh Public School, Mahavir Enclave, New Delhi.

Recognition of Sulabh Technologies

- Sulabh's Cost Effective & Appropriate Sanitation Systems were recognised as “*Global Urban Best Practice*” from amongst 625 entries from all over the world by United Nations Centre for Human Settlements (UNCHS) in 1996 at Istanbul.
- The Dubai Municipality and UNCHS (HABITAT) awarded Sulabh technology ‘*Dubai International Award for Best Practices to Improve the Living Environment*’ out of 1125 entries in the year 2000.
- UNDP has recommended the use of Sulabh technologies. International agencies such as WHO, UNICEF, World Bank, UN–HABITAT, WSSCC, apart from national governments, have appreciated the efforts of Sulabh.

Challenges/Obstacles

- Methodology and Delivery System had to be developed to motivate, educate and persuade the householders and on how to implement programmes.
- Follow-up and monitoring had to be done to gain the confidence of the beneficiaries as well as the program partners. This was not done earlier.
- Funding is a constraint for large scale replication as Sulabh does not take grants/donations from any agency for implementation of projects
- Sanitation is a technical as well as a social problem. The mind-set of the people had to be changed and need and demand for sanitation facilities had to be created.
- The magnitude of the problem varied widely in different states of India.
- Dissemination of information was required for people to be aware of low-cost sustainable sanitation technologies for sanitation coverage besides the existing sewerage and septic tank systems.
- Training of professionals, masons, plumbers, etc. was required before adoption and replication of Sulabh on-site sanitation technologies on large scale.
- All public toilet complexes are not self-sustaining, particularly those located in slums and less developed areas.

Lessons Learnt

The task of total sanitation coverage in any country is very challenging and can be fulfilled only through close cooperation between the central government, local government and the community or local NGOs involved with such work as the problem requires both technical as well as social aspects to be tackled.

The lessons learnt are that 'creation of demand' for sanitation facilities is crucial before construction of toilets is undertaken otherwise they may not be put to use. The designs need to be flexible which can be chosen by the householder according to his affordability. Funding for provision of sanitation facilities is also a big challenge. Therefore a decentralized holistic effort is needed to overcome the problem.

Conclusion

The Millennium Development Goal on water and sanitation cannot be met by the capital intensive, unaffordable and centralised systems of sanitation alone but the Sulabh technologies can help meet the MDGs.

The Sulabh Sanitation technologies have enabled girls and women to get privacy and dignity because of toilets in or near their houses, prevented thousands of deaths linked to diarrhoea and water-borne diseases, led to better health-related economic productivity, human development and reduction of poverty – other Millennium Development Goals of the United Nations.

**Please do not
defecate in open!**



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