

# 2009 World Water Week

## Speech of 2009 Stockholm Water Prize Laureate by Dr. Bindeshwar Pathak

Your Excellencies, Distinguished Delegates, Ladies and Gentlemen,

I thank Stockholm International Water Institute for nominating me as 2009 Water Prize Laureate and for giving me this opportunity to speak in the opening Plenary Session of the 2009 World Water Week and to exchange my views on the subject of water and sanitation with the experts and distinguished persons, present on the dais and in the august gathering. I feel proud and privileged to be present on this occasion.

In 1970, I started the Sulabh Sanitation and Social Reform Movement to solve three basic problems which India was facing i.e. defecation in the open, cleaning of bucket toilets manually by the people called human scavengers and public places without facilities of toilets and urinals. Women had to suffer the most; they had to go for defecation before sunrise or after sunset. Girls did not go to school because of lack of toilets and many children used to die because of diarrhoea and dehydration. My sister's son died of diarrhoea. Foreigners did not like to come to India because of lack of toilet facilities.



*Cleaning of bucket toilet manually by a woman scavenger, a sub-human practice*

In the days when you could not count on a public toilet facility, an English woman was planning a trip to India – She registered to stay in a small guest house owned by the local schoolmaster. She was concerned as to whether the guest house contained a WC (Water Closet).

She wrote to the schoolmaster inquiring of the facilities about the WC. The schoolmaster, not fluent in English asked the local priest if he knew the meaning of WC.

Together they pondered possible meanings of the letters and concluded that the lady wanted to know if there was a “Wayside Chapel” near the house. That the letters could mean a bathroom, never entered their minds. So the schoolmaster wrote: -

Dear Madam,

I take great pleasure in informing you that the WC is located 9 miles from the house. It is located in the middle of a grove of pine trees, surrounded by lovely grounds. It is capable of holding 229 people and is open on Sundays and Thursdays. As there are many people expected in the summer months, I suggest you arrive early. There is, however, plenty of standing room. This is an unfortunate situation especially if you are in the habit of going regularly. It may be of some interest to you that my daughter was married in the WC, since she met her husband there.

It was a wonderful event. There were 10 people in every seat. It was wonderful to see the expressions on their faces. My wife, sadly, has been ill and unable to go recently. It has been almost a year since she went last, which pains her greatly. You will be pleased to know that many people bring their lunch and make a day of it.

Others prefer to wait till the last minute and arrive just in time! I would recommend that your ladyship plan to go on a Thursday, as there is an organ accompaniment. The acoustics are excellent and even the most delicate sounds can be heard everywhere. The newest addition is a bell which rings every time a person enters. We are holding a bazaar to provide plush seats for all since many feel it is long needed. I look forward to escorting you there myself and seating you in a place where you can be seen by all.

With deepest regards,

The Schoolmaster.

No wonder the woman never visited India!!!

So this was the situation of sanitation in India.

The human scavengers were treated as untouchables and they were hated, humiliated and insulted by the people for whom they used to work. In the Indian society, before the Independence of India in 1947, a person born in the 'untouchable' caste died as an 'untouchable'. There was no chance of any change in the caste structure. Mahatma Gandhi's attention was drawn towards the problems of defecation in the open and human scavenging. He tried to show the way by which these problems could be solved but during his lifetime nothing much happened. It was very difficult for me to work in this sector because I belonged to an orthodox Brahmin family. In my childhood, I once touched an 'untouchable' Dom and for that my grandmother



***Scavengers were not allowed to drink water from a water pot or a water tap as they were considered untouchables. The lady house owner, therefore, pours water in the cupped hands of a scavenger to drink***

forced me to swallow cow dung, cow urine and the river Ganges water to purify myself. But somehow or the other, I decided to solve the problem unlike many others in the world who are experts in collection of information but are unable to deal with its dangers. So to prepare myself to shed my own prejudices against untouchables, I went and lived in the colony of scavengers for three months. There I encountered two incidents.



***A life of degradation, humiliation and discrimination in store for the new bride of a scavenger family***

One particular morning, it came to my notice that a newly married girl was being forced by her in-laws' family to go to clean bucket toilets and that she was crying bitterly as she was most unwilling to do so. On hearing her cries I went and intervened, trying to persuade the family members not to force her, if she was unwilling to go and clean toilets. Finally despite my protests they sent her to clean bucket toilets.

After a few days, as I was going to the market, with a colleague of mine of that colony, we saw a bull attacking a boy 10-12 years of age, who was wearing a red shirt. When people rushed to save him, somebody from the back shouted that he belonged to the 'untouchable' scavengers' colony, whereupon everybody left him. We took him to the hospital but the boy died.



***No help was extended to the boy, attacked by a bull, as he was an untouchable***

Either to stop defecation in the open or to end the practice of manual cleaning of human excreta by human scavengers, a technology was needed. Ideas have changed the World! It may be

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case of the idea of James Watt who gave the concept of Steam Engine, Newton's theory of Gravity or Alexander Fleming of Penicillin. *Ideas play a very important role in the solution of problems.*

On the basis of some literature available and with the application of my mind, I invented, innovated and developed two technologies – one for the individual houses and the other for public places in non-sewered areas. The first technology is twin-



***Sulabh twin-pit pour-flush compost toilet – a simple solution to achieve the Millennium Development Goal on Sanitation***



**Ceramic Pan with 25° to 28° slope - it needs only 1.5 litre of water per flushing due to slope and P-trap**



**PVC P-trap having 20 mm water seal which does not allow the smell from the pit to enter the toilet**

pit, pour-flush, compost toilet which I popularized in the name of Sulabh Shauchalaya. It requires only 1.5 litre of water to flush per use, so it saves enormous quantity of water for flushing. There are two pits, with one being used at a time and the other kept as stand-by. When the first pit is full the waste is switched over to the other one and in the first one, after two years, human waste becomes manure which contains nitrogen, potassium and phosphate and works as bio-fertilizer to raise the yield of flowers, fruits and plants and productivity of the field.

In this technology there is no gas pipe and gases produced are absorbed in the soil, so it helps to reduce global warming. Because the gases are absorbed in the soil, this technology remains functional even during winter season. In Srinagar, India, in 1984 the temperature went down to -14°C and all Sulabh toilets installed there functioned very well whereas septic tank and sewerage system got frozen.

Sulabh has installed 1.2 million toilets based on this technology and Government of India has also got constructed 54 million such toilets. Because of this technology now women go to toilets with dignity and safety and girls go to school as they now have toilets.

The mortality rate of children has reduced from 129 in the 1970s to 57 in 2006. Millions of 'untouchable' scavengers have been relieved from this sub-human occupation and their human rights and dignity have been restored.

The other technology which I have developed is the biogas digester with Sulabh Effluent Treatment (SET) plant. In this technology, human excreta from public toilet, through gradient, goes



**Biogas plant - Public toilets linked with biogas digester (with gas holder)**



**Biogas generator which operates only on gas with spark ignition**



**Sulabh Effluent Treatment (SET) technology**

inside the biogas digester. Biogas is produced and is channelized for different purposes, like burning lamps, warming oneself during winters, heating water, cooking and where there is no electricity it can be converted into electrical energy. Earlier the conversion required 80% biogas and 20% diesel, but now it is run 100% on biogas.

The water discharged from the biogas plant is treated through sand, charcoal,

aeration tank and finally exposed to ultra violet rays. The water becomes so pure that the Biochemical Oxygen Demand (BOD) comes down to less than 1 milligram per litre. Now this water is so pure that it can be discharged into a water body and there is no chance of pollution from this water. This technology can be utilized in housing colonies, high-rise buildings, hospitals etc. in non-sewered areas. This technology also functions very well even in cold climate of  $-30^{\circ}\text{C}$  or so.



**Before Treatment BOD about 200 mg/l**

**After Treatment BOD < 1mg/l**

The above mentioned technologies

could be helpful to achieve the

Millennium Development Goal on sanitation with some modifications according to local conditions.

In the seventies, Indians had no habit of making payments for the use of toilets. I got the first public toilet constructed in Patna, Bihar, a state of India, in 1974 and started maintaining it on 'pay and use' basis. Initially, people ridiculed me, joked and had skeptical views, saying who would pay for the use of a toilet. But on the very first day 500 people came to use it and the total collection was \$5. Now in the last three decades and more, Indians have developed the habit of making payments for the use of public toilets throughout the country. This has helped to reduce the burden on public exchequer for the maintenance of public toilets and bath facilities. This is the best example of public-private

partnership. Sulabh has itself installed more than 7500 public toilets and now other NGOs and companies have started working in this sector. Both the toilets, individual as well as public, built by Sulabh, are used by 10 million people daily.

Two or three significant changes in this area have taken place in India. The subject of toilet earlier was a taboo in Indian culture. Nobody talked about it while eating food but now they talk about Sulabh while having lunch or dinner. We have been able to change the thoughts, attitudes and behaviour of the Indian people towards toilets and 'untouchable' human scavengers. Secondly, the concept of untouchability is no longer attached to the profession of



**One of the World's biggest toilet-cum-bath complexes in Shirdi, Maharashtra (India) having 120 WCs, 108 bathrooms, 28 special toilets and 5,000 lockers for the convenience of the pilgrims**

construction and maintenance of the toilets. Thirdly, in India, there are frequent clashes amongst the Hindus and Muslims but in the public toilets we have not found any communal tension so far, irrespective of religion and caste. Anybody can come and use the toilet and nobody discriminates against anyone else.



**Sulabh Public School, where the ratio between the number of children of scavengers and others is 60:40**

The human scavengers have been given education, training in different vocations – beautician's course, typing and shorthand, tailoring and embroidery, electrician's job, etc. and they have become self-employed. It is amazing that upper caste people now buy food

materials prepared by the scavengers. They also go to a temple and have common dining. There is a sea-change in the society and now the scavengers are intermingling in the mainstream of the society. The scavengers were given audience by Hon'ble Prime Minister of India, Dr. Manmohan Singh and Hon'ble President of India, Smt. Pratibha Devisingh Patil. They also participated in an event in the United Nations and walked the ramp inside the UN with famous models from India and America. They also went to the Statue of Liberty to tell the world that they were no more untouchables. HRH the Prince of Orange of the Netherlands, and Chairman



**In tailoring class, erstwhile women scavengers learning how to stitch the clothes**

of the UN Secretary General's Advisory Board on Water and Sanitation, the Economic and Social Council of the UN and Chef de Cabinet of the United Nations, H.E. Mr. Vijay Nambiar, encouraged them.

For doing all these things, application of mind is more important than knowledge. Knowledge can be borrowed but we have to apply our mind. You should have a killer's instinct like in love and war, to solve a problem.



**HRH the Prince of Orange of the Netherlands felicitating erstwhile women scavengers in Delhi on the occasion of World Toilet Summit 2007**



**Mr. Vijay Nambiar, Chef de Cabinet, Executive Office of Secretary-General of the United Nations crowning Smt. Usha Chaumar as President, Sulabh International Social Service Organisation**

Concentration of mind is very important, just as a good dancer, flutist, poet and writer concentrate. In an Indian epic in Mahabharata, the hero of the war, Arjuna, aims and pierces the eye of the rotating fish. When asked how he did it, he said, he only saw the eye of the fish and nothing else. While the famous poet Samuel Taylor Coleridge was writing 'Kubla Khan', somebody knocked at his door so his concentration broke and he could not proceed and complete his poem. The half-written poem is still taught in English Literature.

My life can be compared with the life of the Seagull in the fable 'Jonathan Livingston Seagull' by Richard Bach. The seagull was dissuaded not to fly in the sky by his parents as his job was to fly from the shore to where the fishermen used to keep cut fish to enable him to catch more fish. He was insulted, humiliated and faced difficulties while flying high, but he finally succeeded. After he became successful, he



**Hon'ble President of India Smt. Pratibha Devisingh Patil, on 25th July 2008, gave an audience and blessed the erstwhile women scavengers trained at 'Nai Disha', Alwar**



*A liberated woman scavenger walks the ramp alongwith a fashion model in United Nations, New York*

trained other seagulls to fly high also. My story is the same because I belong to a Brahmin family. My father was sad and my father-in-law was very angry when I took up this job. In the same way as the seagull, I faced many difficulties but finally succeeded. We are training people in Sulabh technologies which are free from patent and empowering them. We have got constructed public toilets in

Bhutan and Afghanistan. We have trained professionals from 14 countries of Africa, so that they can install these technologies with some modifications in their respective countries. I suggest that the entire world should adopt the technologies mentioned above to solve the problem of sanitation to achieve the Millennium Development Goals.

People from more than 100 countries have visited Sulabh Centre for Sanitation and Social Change. We have a Museum of Toilets being visited by millions of people from around the world. We have published an Encyclopedia of Sanitation and we are proposing to start a University of Sanitation and Public Health.

Martin Luther King Jr. once said that even if a person's job was to sweep the road, he should sweep the road so well that all the angels in heaven should stop and say, "Here lives a wonderful sweeper!" I have done the same in my life and for that you have nominated me for this award.

If you want to know in detail you can visit the Sulabh International website – [www.sulabhinternational.org](http://www.sulabhinternational.org)

I thank you all for your patient hearing.



*At the Statue of Liberty, New York, scavengers declaring themselves free*

