

**Course Name- Sociology and Sanitation: An Introduction**

**Professor Name- Prof. Ashish Saxena**

**Department Name- Sociology**

**Institute Name- University of Allahabad**

**Week-4**

**Lecture 10**

**Toilet as a Tool of Change: Exemplifying Sulabh International Social Service Organisation**

Good morning friends. So, we are going to take up this last unit that is unit 10 and the title is the toilet as a tool of change. And it is basically the exemplification of the Shulabh International Social Service Organization New Delhi which has to be taken into consideration. So, I think since the agenda of this program is basically to see that how we can speak about the issue of sanitation. Although my whole idea in that sense was trying to see the sanitation in a broader sense trying to speak about how we can see sanitation in terms of societal sanitation also and also its individualistic sanitation too. Basically we try to speak about the psychological, moral, ethical or maybe we try to see about the societal reforms in that sense or we try to speak about the physical and the neighbor also in terms of environment or ecology.

All these things in that sense have been taken into consideration. And finally, we try to see that the typical understanding about the sanitation which of course, is what you can say the reductionist way of looking to sanitation that is the toilet in that sense. But here of course, I am trying to see things in terms of what Binduweshwar Pathak was trying to speak about in terms of toilet as a tool of social change. And that of course, is the basic idea which is been projected here.

And we basically try to see that how it can be seen as a catalyst to bring about the change. I think the most important thing in that sense is that when we try to speak about the issue of sanitation, we have to see that it is the health, the nutrition, the development, economy, dignity and empowerment. All these things in that sense are going to be important. And we try to see that countries sanitation and hygiene challenges are to be seen as an urgent issue. So, we have to speak about how we can overcome the social sanctions and how we try to speak about that toilet are to be seen as relational.

And we try to speak about that toilet are no more receptible of the waste, but a domestic feature that connects us to the world. And that which exist in our bodies go somewhere where we choose to think about it or not. I think this group of people choose to think

about it. And in looking to the composite toilets, we try to speak about that there are popular alternatives to the flush toilets which are been connecting the country. So, we basically try to see that the social development of through sanitation is about the human progress.

And it centers around the equality between the women and the men in terms of social inclusion, in terms of poverty, eradication or in terms of the human dignity and human rights. And I think it tries to speak about various issues in that sense. Toilet is to be noted are not at the forefront of the anthropological inquiry. We try to speak about the defecation which of course, is seen as the neglected aspect. In some cases, analyzing the toilet can be regarded as active hostile.

And we try to see that having the post-colonial studies which tries to call for the papers on toilet and defecation which has been met at with a barrage of emails. So, the first sewerage syndrome was had there in Sydney which was built in 1850s as a drain raw sewerage straight into the famous harbour. And that of course, was seen as that all drain builds in the Sydney has pointed seaward. And that of course, it was seen as a consequences of the policy decisions which has been the sewerage was assured a high level of facial health, coliform, sick fish and the sick swimmers. And what is particularly interesting is about the famous work of Hawkins is the discussion on toilet sewers and drainage in Sydney.

And there of course, I think the construction of the problem of disposal was been taken into priority. And the basic idea was that we have to have the water board proposition to build the outfall further out to the sea where offerings were during the push that is public opposition to the ocean outfall protest of 1981 took place. So, we try to see that Hawkins describe the public outcry over the imposition of water restrictions in 2003. And despite the sanitary massive network connections from the public waste facilities, we try to see that this particular issue happen. And we basically try to see that similarly Norbert Elias in his work the civilizing processes presents the picture of changing manner in which the Europe since the 16th century highlight the increasing individualism privacy and feeling of shame relating to the bodily waste.

And we basically try to see that managing that which exist in the body from the faeces to the farts are to be seen as the development of individualism in the Europe. And Elias provides a broader sweep history of the toilet as a tool of change. And we basically try to see that changing manner of Europe which of which the attitude towards excretion forms was taken into consideration. So, we try to speak about the similar case in Europe also in Corbin to Corbin in 1986 he spells out the aromatic history of one of the nation. And France which was been focusing on the urbanization and the waste management was seen as an important aspect.

And in his analysis expanding the notion of individualism are dependent upon increase state intrusion into the home and that is something which is indistinguishable feature from the mechanism of power and the state representation. So, we try to see that civil system appears as a form of reform self self and the state power. And sometimes similar has been talked about by Zizek. Zizek in that sense was given example of toilet to demonstrate that ideology which is stamped in the material world. And in a traditional German toilet he explains that the hole in which the sheet disappears after we flush water is away in front.

So, that the shit in is first laid out for us are to sniff and inspect. So, this is how he tries to speak about and in a French laboratory he says the hole is in the back that is the shit is supposed to disappear as soon as possible. And the Anglo section is a synthesis of this where the basin is full of water. So, that the shit floats in it visible, but not inspected. So, we try to see that the analysis of laboratories by Zizek in that sense is to be seen as having the three different attitudes over experimental access that is ambiguous, contemptibility, fascination, hasty attempt to get rid of the unpleasant access and the pragmatic oppose to treat the access as an ordinary object to be disposed of.

So, Zizek in that sense was trying to see identify toilet as a site where ideology is imprinted upon the material world where there is no utility without ideology. And the states role in that sense has been taken into consideration that the toilet mediate different sorts of relation between the nation state and the national ideology and also between one's body and oneself. And in this case we try to see that there has been the question of meeting or mediating the interpersonal relationship. So, that way we try to see that there are various ways in which we try to speak about the toilets. A dry toilet which is seen as a toilet that operates without water, the dry toilet may be raised pedestal that uses users can sit on and squat in the pen and that the user squats over in both cases excreta both urine the faeces fall through a drop hole.

And dry latrines are easy for almost everyone to use because there is no need to separate urine faeces they are often the most physically comfortable and natural option. So, we try to see that the dry toilets do not have a water seal, a odor may be a problem depending upon the collection and storage or the treatment of the technology to which it is connected. The sitting or the standing surface should be kept clean and dry to prevent the pathogen or the disease transmission and to limit the order. There are no mechanical parts. So, the dry toilet should not no need repairs except in the event that it cracks.

Then we have the urine diverting dry toilets and the urine diverting dry toilets is basically seen as a toilet that operates without water and has a divider. So, that the user with the little foot can divert the urine away from the faeces and this UDDTT toilet is built such that the urine is collected and drained from the front area of the toilet while the faeces fall through the large hole in the back. Depending upon the collection and the storage

treatment technology that follows the drying material such as the lime ash or the earth should be added into the same hole after defecating. It is important that the two sections of the toilets are well separated to ensure that the faeces do not fall into the clog the urine collection area in the front and that the urine does not splash into the dry area of the toilet. So, there are three holes separating toilets that allows anal cleansing water to be separated from the urine and the faeces into the third it is a dedicated hole.

So, it is important that the faeces remain separate and dry. When the toilet is cleaned with the water care should be taken to ensure that faeces are not mixed with the water also. So, we try to see that this UDDT is not an immediately obvious to have to some users in terms of putting things where we try to speak about the question of difficulty to keep clean compared to the other toilets because of both the lack of water and the need to separate the solid faeces from the liquid urine. So, for cleaning a damp cloth may be used to wipe down the seat and the inner bowl. So, some toilets are easily removable and can be cleaned more thoroughly.

Then we have the third category of toilets which are to be seen as urinals. A urinal is only used for collecting urines urinals are generally for men although urinals are for women as well. The urinals can be used with or without the water and the plumbing can be developed accordingly. If water is used it is mainly used for cleaning and limiting the order and we try to see that water based urinals use 8 to 12 liters of flush water whereas, the low flush models use the less than 4 liters of flush water. So, the urinal is comfortable and is the acceptable user interface and in some cases we try to see that urinal is useful to prevent the misuse of the dry segment which was there in the UDDT.

So, we try to see that urinals although is a simple construction and design it can have a larger impact on the well being of the community. And then we have the pore flush toilet which is seen as a flush toilets that the water coming from the cistern above is poured in the by the user when the water supply is not continuous and the cistern flush toilets can become a pore flush toilet. Just like a traditional flush toilets there is a water seal that prevents odor and flies from coming back to the pipe and water is poured into the bowl to flush the toilet of excreta and it has the use of approximately 2 to 3 liters is usually sufficient the quantity of water and the force of the water must be sufficient to move the excreta up and over the curved water seals. And this is how we try to see that the pore flush toilets and pans they are the S shaped of the water and seal determined how much water is needed for flushing and to reduce the water requirement it is advisable to collect the toilet papers or the drying cleaning materials separately. So, the water seal is effective at preventing odors and it is appropriate for those who sit or squared as well as those who cleans with the water.

So, the pore flush toilet requires less water than the traditional cistern flush toilet. However, because of a smaller amount of water is used the pore flush toilets may clog

more easily and requires more maintenance. So, the pore flush toilets are basically seen as a prevent user from seeing or smelling the excreta or the previous users thus it is generally well accepted. And then we have the cistern flush toilet which is basically seen as usually a pore clean and it is a mass produced factory based user interface. The flush toilet consists of water tank that supplies the water for flushing the excreta and a bowl into which the excreta are deposited.

The attractive feature of flush toilet is that it incorporates a sophisticated water seal to prevent odor from the coming back up through the plumbing. So, we try to see that it requires 3 to 20 liters of water may be used per flush and the water that is stored in the cistern above the toilet bowl is released by pushing or pulling lever. And this is how we try to see that the cistern flush toilets are not being considered unless all of the engines and hardware accessories are available locally. So, the cistern flush toilet may be connected to both the constant source of water for flushing and the collection of storage treatment of the technology to receive the back water. So, we try to see that this is requiring certain amount of mechanical parts or fittings in that sense.

And then we have urine diverting flush toilets that is UDFT the urine diverting flush toilets in that sense is similar to appearance of the cistern flush toilets. The only thing is that the toilet bowls has two sections so that the urine can be separated from the faeces. When the user sits on the toilet urine is collected in a drain in the front and faeces are collected in the back and the urine is collected without water. But a small amount of water is used to rinse the urine collection which is of course seen as an important issue and the proper plumbing will ensure that there is no odor and it is basically is meant for that urine is collected separately. So, the calcium and magnesium based minerals can be precipitated out and build up for fitting in the pipes.

So, we try to see that the technologies and the method used to dispose of the output product in eco friendly manner is going to be an important issue. Like we try to speak about the arboroloo. The arboroloo is to a decomposition a pit it can simply be fitted with the soil and covered there is no benefit can recovered in that sense. Alternatively the arboroloo is a shallow pit that is filled with excreta and soil ash and then covered with the soil. A tree planted on the top will grow vigorously in the nutrient rich pit and the filling and covering the pit is an adequate solution when emptying is not possible.

So, we try to see that arboroloo can be applied in the rural peri urban and the denser area if the space is available. And planting a tree is abundant pit is a good way to reform the forest and area provides a sustainable source of fresh roots and prevent people from falling into the old pit sites and there is a minimal risk of infection if a pit is properly covered. So, that way we try to see that the user do not come in contact with the faeces material and thus there is a very low risk of pathogen transmission. So, we try to see that demonstration project allows showing how the nutrient value of the composite excreta

can be put differently and we try to see it in terms of application of urine it is stored separately and we try to identify the concentrated source of nutrients from that. And that is where we try to see that urine should be applied to the crops within 1 month before they are harvested and they are basically good urine is also contains the majority of nutrients that are excreted by the body.

And that can be used in terms of water intake among facts that 80 percent of the nitrogen 60 percent of the potassium and 55 percent of the phosphorous that is excreted from the body is excreted to urine. And because it is a high pH value and concentration we can apply directly to the plants and that is where we try to see that it can be used for as a source of nutrient in that sense for various fruits and vegetables in that sense. So, the urine application is ideal for the rural and the peri-urban areas where the agricultural land are closer to the point of urine collection. And that is where we try to see that we have to have the social acceptance which of course, is going to be important and what is more important is that the use of urine may be less accepted in the urban and the peri-urban areas whereas, in the household gardens we try to see that they are not been separated. So, we try to see that we have also another aspect that is application of dehydrated faeces when the faeces are stored in the absence of moisture they are dehydrated they are crushed and crumbled in that sense.

And this dehydration means that moisture naturally presents the faeces evaporated and we try to speak about the use of drying material and that dehydration basically results into that the shells are caspers of worms and insects which dehydrate the whole issue. And we try to see that the material is rich in carbon and nutrient and we try to see that it may have certain pathogens in that sense. So, the material can be mixed into the soil either for agriculture or some other activities outside activities in that sense. And we try to see that it has the technical arrangements in that sense which has to be taken into consideration that the handling and the use of dried faeces should be dry, crumbled and odor free. The use of dried faeces may be more acceptable than that of manure or sludge.

The dry faeces are a hostile environment for organisms and consequently they do not survive if the water or urine mixes with the drying faeces then the things will be difficult. So, we try to see that it also has a element of application of composted or ecohumous. Compositing is in terms of used to describe the controlled aerobic degradation of organic into the soil like substance called composted which is called as the ecohumous. And the whole idea in that sense of course, is which we try to see is the use of what one can say the process of thermophilic composite generates heat and which kills the majority of pathogen presents. And that way we try to see the fossa that is S 5 and arboluru that is D 1 are ambient temperature.

And we try to speak about that how the ecohumous in that sense is been created. And the WHO guidelines stipulate that composite should achieve and maintain a temperature of

50 degree for at least one week before it is considered to be safe. And that is where we try to see that ecohumous in that sense is an in-situ position condition in that sense a minimum of 1 year of storage is recommended to eliminate the bacterial pathogens and reduce the viruses and other things. So, we try to see that ecohumous in that sense depends on the materials which has been added to the excreta. A small risk of pathogen transmission exist and we try to see that the nutrient filled with the pit used for planting a tree is going to be there.

And then I think we can speak about the use in terms of irrigation to reduce the dependency on fresh water and maintain a constant source of irrigation. The water throughout the year we try to see that waste water of varying qualities can be used in agriculture. And generally we try to see that water that have a secondary treatment should be used to limit the risk of crop contamination and the health risk to the workers. And there are two kinds of irrigation technologies which are to be used the drip irrigation where the surface water is dripped slower or we have the surface water irrigation. And the surface water integration where the land is rooted over land in the series of duct channels or furrows.

So, that way we try to see that both the aspects in that sense are taken into consideration and we basically try to see that it is a system which is normally used for what you can say irrigation purposes either it is a drip method or the surface method which is been used. And we try to speak about the aquaculture ponds which refer to the controlled cultivation of aquatic plants and animals. And this technology refers to the raising of fish which of course is seen as a part of the floating macrophytes. So, we try to see that three kinds of agriculture designs are there to raise the fish exist fertilization of the fish ponds with the excreta, fertilization of fish ponds with effluent and the fish grown directly into the aerobic ponds. All these things in that sense are taken into consideration and we try to speak about the fact that how different things are taken into consideration.

A floating plant pond is modified maturation pond by with floating macrophytes elements in that sense. And we try to see that these are basically used in terms of how we can speak about what you can say the source in which the duct weeds is fast growing and how we have to overcome that. And we have to speak about that this aquatic arrangement in that sense has to be put under the control situation. And the most important thing over here is the land application of the sludge which of course is to be seen in terms of the biosolids depending upon the quality of the biosolids which we use in that sense. I think when we try to speak about the biosolids it can be used with no restrictions in that sense.

We try to speak about the question of putting or consulting the specific use in terms of a specific criteria. The biosolids can be used in agriculture, in home gardening or in forestry or in the turf growing or the landscaping in the parks and the golf courses. And we try to see that the biosolids have lower nutrient level than the commercial fertilizers.

And that way I think the biosolids in that sense can be seen as an important source of fertilizers. The faecal sludge from the pit latrines has no chemical inputs.

And therefore, they do not have a high risk of contamination in that sense. And that is where we try to see that depending upon the sludge the biosolids can serve as a valuable source of nutrient. And the land application of biosolids can be less expensive than the disposal. So, we try to see that the recycling of the so called biodegradable things in that sense or the biosolids in that sense has to be seen in either way in terms of its disposal or in terms of its recycling or the use in that sense that is going to be important. Now, we try to speak about the toilet as a community organization.

And here the concern of course is try to see that how the drinking water facilities supplies and sanitation are going to be part and parcel of the various public health measures. And we basically try to speak about that we have the international drinking water supply and sanitation decade from 1981 to 1990. And we basically try to speak about that how these issues have been taken into consideration with regard to the appropriate technology. We try to speak about that selecting the appropriate technology has its own benefit in terms of putting things differently. We can speak about that appropriate technology can be defined as that process or techniques which provides a socially and environmentally acceptable level of service or quality of product at the best for the least cost.

And that is where we try to say that community participation within that is going to be a buzz phrase. And we basically try to speak about the fact that community participation is very important when we try to speak about the community involvement in participatory planning and development. And the most important thing in that sense of course is their contribution is considered to be significant because it is their acceptance which is going to be high. And that way we try to see that there are many instances where the use of technology in that sense has been taken into consideration. We have the community led total sanitation programs in that sense which are basically meant for 100 percent open defecation free communities in that sense which have been seen.

And the pioneer in that sense of course is Bangladesh in 1999. And the CLTS has been implemented in Asia, Latin America and Sub-Saharan Africa also. So, we have the community led total sanitation approaches in that sense as such which have been there and they are promising cases for the rural areas as well. So, we try to see that this CLTS programs they try to see things in terms of the toilet subsidies. And the most important thing in that sense of course is that we have to speak about that the various aspect of conditionalities of the poor household, how they have to generate certain amount of skills.

And that is where we try to see that utility of the CLTS in that sense is going to be important. And we basically try to speak about that it has certain amount of inclusiveness

and equity which has to be seen in terms of identification and mapping of the poorest household as an expected step in the CLTS. And second thing in that sense of course is planning, monitoring and accounting for the support is going to be second important issue. And then we try to speak about that how these things are to be clubbed together in terms of providing at least three things. One of course is the welfare classification which is to be seen in terms of facilitating the meetings with the local women's and men's to ask them to form three or four subgroups representing the main local welfare groups.

And that is where we try to see the question of integration with regard to the welfare issues in that sense. And we try to speak about the stratification of community sanitation map where we try to see that stratified community sanitation map is basically meant for that each household is put in the color in that sense as ultra poor, poor or very poor in that sense. And based on that we try to see that where the requirement is to be seen on priority. And that is where we try to see that this mapping in that sense is going to be crucial. And then we try to speak about preparing a community sanitary sanitation matrix.

And here the participants has to compile the community sanitation matrix in terms of the use, in terms of how the number of household with sanitary or non sanitary or the no toilets are been put together in that sense. And we have to see a toilet that drains into the surface water for is been seen as unsanitary and which can be put as sanitary. So, this is been again designed and been identified by the community itself. So, we try to see that there are certain aspects in that sense which has to be taken into consideration. We can speak about the implementation team in that sense which is basically meant for helping the community in that sense in assisting them in terms of purchase of the material in that sense, identification of the cement bricks and tiles in that sense.

And this IT team in that sense who is visits the local supplier and the builders in that sense and then of course, they try to have a certain amount of supervision for that. So, basically we try to see that in Kerala program these things are been associated where the members are been taken into consideration especially the female members are going to be seen with regard to the community led total sanitation. And that is where we try to see that it includes the question of diversity, it includes the question of creativity, diversification and also it tries to speak about certain basic aspect with regard to CLTS and that is the community self-help action group. Its handoff triggering, it's a felicitation not teaching in that sense, its no standard designs which is there in that sense community decides the design. The poorer and the weaker sections are held by the others in that sense and no individual household hardware subsidy is going to be provided.

And the most important thing in that sense of course, is there is a synergy with other approaches in that sense which is to be seen when we try to see the case of CLTS. It involves the scale, speed and quality which of course, is going to be one important aspect with regard to CLTS. And the most important thing in that sense of course, is that we

have to speak about the question of creating diversity in that sense. And I think somewhere the action aid which is trying to see things in terms of accountability, learning and planning are going to be important issues. And we try to speak about the question of sustainability also in terms of physical, social and the policy making and that is where we try to see that the efforts are been made.

And we try to speak about the issue of sustainability in many aspect especially we try to see the environmental policies and the practices which are going to be important. And within that framework we try to see that innovative learning and sharing in that sense is also part of the CLT project. So, the community based attempt in that sense is trying to speak about the CLTs in terms of methodological development, in terms of helping the weaker and the poorer in that sense is going to be important. And that way we try to see that it is combining and sequencing the things in the larger interest of the community. And then the sustained support and intervention is going to be seen as been part of the CLT.

So, it is not that open defecation has to be ended in that sense for that we have to have certain methodological issues in terms of creative knowledge in that sense. And the CLTs in that sense is seen as the learning alliance network in that sense which is going to be important. And that way we try to see that we try to speak about certain issues which has been part and parcel of the society especially we try to speak about the challenges and the misconceptions which are regarded as part of the toilet sanitation. Like we try to speak about that in Indian specific scenario the open defecation is a socially accepted traditional behaviour. And that of course, is where we have to see we have to have the change behaviour in that sense which has to be seen as an important aspect.

And then the lack of awareness of the linkage between using a toilet and then the safe disposal of the faeces and hygiene is going to be an important issue. And then we try to see that how we can speak about that how the open defecation and common disease can be associated. And that way we try to see that we try to see that the health issues in that sense unhygienic practices and unsafe drinking water in that sense are been seen as the important trend. So, that of course, is another important challenge and then acceptance of open defecation means that girls and the women remain imprisoned by the daylight that of course, is another important aspect. And we try to see that the toilet girls in that sense and the women in that sense are forced to wait for early morning or the late night to defecate.

And that is where we try to see that these are the things which are alarming in that sense we have to speak about the child faeces in that sense which are considered to be harmless in that sense. And then for that we have to speak about that how a significant gap exists between the knowledge and the practice. And in that we have to see that access to the

toilet does not always mean that it is used or maintained. We have to speak about the ownership of toilet which has to be seen in terms of adoption of the sanitation and the hygiene practices that is going to be important. And within that framework we try to see that we can include certain issues like we can speak about the total acceptable forms of understanding in that sense where the access to improve sanitation is going to be seen on priority.

And the basic thing in that sense of course, is that we have to speak about the contribution of the million development goal which is basically targeting for the sanitation. And without that India definitely cannot attain that when we are trying to speak about the issue of sanitation. So, the ministry of drinking water and sanitation along with UNICEF in that sense is working on various issues with regard to the national sanitation and hygiene advocacy and communication strategy framework for 2012 to 2017. And that is where we try to see that there are certain arrangements which are been made and the advocacy of communication strategy focuses on four critical sanitation and hygiene behavior. The first one is the building and the use of the toilet that of course, is the prime thing.

Second is the safe disposal of the child feces that of feces is going to be another things. So, we have the safe disposal of the child feces is important. Then hand washing with the soap after defecation or before food and after handling child faeces are going to be seen as an another important aspect. And then we have the safe storage and handling of the drinking water. All these things in that sense are going to be part of the advocacy and communication strategy which are to be focused with regard to the sanitation and hygiene.

And apart from that we try to see that the communication strategy is divided into three phases. First of course, is the audience receiving the information that is who are the people in that sense. Then the content of the information what is that content is going to be important. And then we have the how question that is the method to be used to convey the information. And that is where we try to see that the approach is to promote action for the change.

And that is where we try to see that sanitation and hygiene advocacy and communication, a strategy framework document is going to be important which is going to be implemented at various level. It is at national state and the district level when we try to speak about the nation it is basically the increasing population mass awareness in that sense with regard to the use of toilets and practicing the good hygienes and emphasis on the positive outcome for health that should be done at the national level. At the state level it is to contextualize the national framework to a state specific strategy and

implementation of the plan that is going to be important. And we basically try to speak about that it has something to do with using a menu of activities at each phase.

And that is where we try to see the whole debate. And at the district level we try to see that the district communication plan template has to be developed in kind of sense with the communication action plan. And that is where we try to see that the things are to be worked for. And we try to see that the successful commodity design build and manage toilet blocks in India are to be seen as the top priority. And for that I think government of India is basically promoting the various models of household toilets for the safe disposal in the rural areas depending upon the pit technology which has been used. I think we try to see that the different forms of toilets which we have tried to discuss at the initial phase of this discussion of this unit.

We try to speak about the varied forms of toilets in that sense which are to be created in that sense which can be taken into consideration. But depending upon its utility and also depending upon its viability in terms of economics and efficiency it has to be taken into consideration. So, that way we try to see that the construction of the toilet blocks includes simply not only digging the pits, but it is also installing or the scattering plate of or ball which is basically seen as the important aspect. And basically the villages in Gujarat is composed of circular plate in that sense and it is lined with the supporting honeycomb of bricks and cements. All these things in that sense are seen as part and parcel of the various experiments in that sense we try to see that there are certain arrangements whereby the things are to be taken differently in terms of having the three Indian organizations especially when we try to speak about like we try to speak about organization of SPARC, SPARC and then we have the National Slum Dwellers Federation and Mahila Milan that is another in that sense.

And then we try to speak about use of these things in terms of the National Slum Dweller Federation. So, SPARC, National Slum Dweller Federation and the Mahila Milan in that sense are seen as certain cases in that sense where we try to speak about the women together in through Mahila Milan in that sense is basically meant for the term speaks about the collectivization of women into the question of payment dwellers. And then we try to speak about that how these things are been put into practices in the rural and the urban areas especially in the areas related to the municipal boundaries. We try to speak about the toilet blocks which are been put in terms of engineering or in terms of its practices as such. But the most important thing in that sense is that the toilet blocks has also become a place where the household waste are dumped and we have to see that it has not to be seen as a garbage collection centers.

So, women because they are the sufferers to have not accessible to the safe toilets. So, we have to see that these aspects in that sense have to be taken seriously. And we have to speak about various other foundations like we have this Sadguru Foundation which

started toilets in the villages in 2001. And where the whole idea in that sense was that it has some bearing with regard to what the government of Gujarat provided for that 18 percent subsidy with 20 percent contribution from the people was the major initiative. And the government reduced the subsidy to 50 percent while the rest was to be covered by the people. So, gradually we try to see that it is the level of acceptance in that sense whereby the people are motivated.

In 2007 the government of Gujarat announced the Nirmal gram award to the to honor the tribal villages in that sense where all households have the toilets. So, we try to see that these are certain instances whereby the people they are trying to put their brains in that sense the different states they are working for putting the things differently. But the most important thing in that sense is that we try to speak about the fact that how the economic ranking of the traditional understanding of the Indian society has to be taken into consideration when we try to see it in relation to the toilets. So, we try to see that the humble toilet can speed the social development in number of ways and that is where the linkage of toilet with regard to the tool of social change is going to be important. First thing in that sense of course is by aiding the progress towards the gender equality that of course is going to be an important aspect in that sense.

We try to see that it tries to have various aspects related to the women either it is the issue of menstruation or the sexual harassment or the rape in that sense or the well being of the women in that sense. All these things in that sense are going to be taken into consideration as an important component. Then the second important thing is by promoting the social inclusion. We try to see that it is the question of how we can speak about the inclusion of women and then also the inclusion in terms of the development process through that the issue of empowerment can take place. And the third thing in that sense of course is by increasing the school attendance we try to speak about that by doing that we are basically trying to go for the sanitation goal in terms of putting the practice of hand washing facilities and where the no toilet block is sent for the separate girls in that sense there the arrangements are to be made in that particular area in that sense that is going to be important. And then we try to speak about by building the community pride and social cohesion. And these things in that sense are going to be detrimental when we try to see it in terms of how it is going to bring about the transformation in the societies. And for that I think we have to see that we have been seeing that how it is contributing towards eradication of poverty that is going to be seen as one important aspect. Like when we try to speak about to bring communities together I think that of course is the bigger agenda of toilets in terms of promoting the social chain. And to test the new pro-poor policies in that sense is another important aspect and along with that we try to see to expand the livelihood options and to change the national policies in that direction. I think these are certain things which has to be taken into consideration we can speak about many other instances of how the people on the move can bring about the change.

And that of course is the marker for how we can speak about that we can have the idea that do not waste time in waiting for the ideal situation rather one has to really act in that particular fashion. So there is a need for understanding the things in a fashion and the role of NGOs in that sense in sanitation is going to be an important aspect. I think somewhere we try to see that NGOs and the local government are very different in terms of their ethos because I think they have the different ideas they have the different strategies they have the different team in that sense. So we have to see the convergence of these things together and the most important thing in that sense of course is that we have to promote the idea of community based sanitation program and which is basically seen as that how we are in a position to remove the open defecation emphasis on promoting sanitation should be seen as the top ground and participatory working with the community group is going to be important. And the most important thing in that sense of course is the capacity building for the sustainable management to the sanitation is going to be an important issue.

And that way we try to see that we have to speak about various aspects which has to be taken into consideration that we have to create the sanitation services particularly those amongst the poor in that sense as such and we basically try to see that how the NGOs in that sense can work for especially we try to see that NGOs are too has to fill the gap which the government machinery is sometimes fails and where we have to see that NGOs have to be seen as an interface between the masses and the state in that sense and that is where I think their utility lies and we have to see that we have to have various exemplification and especially for this unit as I said earlier that the Sulabh International Social Service Organization is basically seen as an exemplification of toilet as a catalyst to change and for that I think we have to say that how it is going to bring about the change in terms of how the ecological heritage in that sense has to be seen across and how the modern civilization has to be created. I think Sulabh International in that sense is working in that direction and the exemplification is coming none other than professor Bindeshwar Pathak who is basically the man behind the whole action he basically is an action sociologist who is trying to work for to bring about and promoting the cause of the concern for how sanitation and toilets in that sense is going to be seen as the tool of change. I think somewhere we try to see that there has been many instances where the Sulabh sanitation movement in that sense has been seen as one important aspect and the founder Bindeshwar Pathak in that sense developed a low cost affordable culturally appropriate technology that did not need emptying the scavengers and this is where I think the Sulabh has promoted the two pit poor flushed water sealed toilet system. And this system has been installed in more than 1 million house household and is used for 3000 community of toilets and that is where we try to see that Gandhiji's mission to liberate the scavengers in that sense have been put to practice by Bindeshwar Pathak and we try to see that Sulabh toilet functions in that sense are been seen as independently functioning in the cities in terms of sewerage system and the objective of the Sulabh

sanitation movement is broadly twofold. First is to restore the human rights and dignity to the scavengers and this is basically seen as one important aspect in that sense we have to see that how the scavengers are been put forth in terms of getting trainings in the alternative occupations in that sense and we have to see how to prevent the environmental pollution that of course is the second aspect in that sense which Sulabh was trying to see and for that I think to educate the people not to defecate in the open was one important policy and then to motivate the people to convert the bucket privacy was to be seen in terms of Sulabh sochalayas as part of the toilet facilities in their house and then promoting or providing the community toilet services in that sense basically for the common use at a low cost in that sense was to be seen for the dwellers, rickshaw pullers and floating population of Indian subcontinent in that sense was seen as another important aspect and then we try to speak about the how they try to pursue to plant at least five trees per family which was another important mission for environmental friendly aspect and then we try to see that non-conventional energy source in that sense from the human waste is going to be seen as another important aspect which Sulabh has tried to generate and how to procure the manure from the Sulabh sochalayas was to see increase the farm productivity was another important aspect and then promoting the job oriented education and primary health care.

These are certain things which they try to carry forward and apart from that I think they try to promote the consultancy research and development in terms of technical and social fields and that is where I think we try to say that Sulabh International Social Service Organization is leading nonprofit or organization which is working for promoting the sanitation and preventing the environmental pollution. I think the most important thing in that sense of course is that the Sulabh in terms of a mission is basically working for the human waste disposal system and it was a radical departure from the conventional sewerage system and it was basically meant for how the individuals in that sense can go for putting or ending this issue of sanitation the old practices which have been associated especially we try to speak about the low cost poor flush water seal toilets with the two pit theory in that sense which has been generated by Sulabh International. We try to see that the Sulabh toilet system in that sense is cost effective and appropriate technology in that sense has been taken into consideration and that is where we try to see that the twin pit poor flush toilet in that sense was been seen as a model which they try to promote in terms of indigenous technology and which can be used to construct latrines from the local materials and using the local labor and that is where we try to see that it benefits in terms of the safe disposal of human excreta on sites and requires around 1.5 to 2 liters of water for flushing and this is where we try to see that conserving the water in that sense is going to be an important issue and then this two pit poor flush toilets in that sense is basically trying to see things in terms of putting that how the Sulabh socialize in that sense can be constructed in the various settings in that sense which is economic and eco-friendly for that sakes. We also try to see the contribution in terms of the Sulabh public toilet

complexes which has been there I think we try to see that the whole idea in that sense started as as back as 1878 the Bengali government had passed a law to set up a toilet facilities in Calcutta and then I think we try to see that the Sulabh which has its origination in 1974 Sulabh has been successful throughout the country and we try to see that how they try to speak about the public toilets in the cities and the towns which has to be seen as the source of consumption and the utilization of the basic amenities in that sense and that Sulabh in that sense is to date working for around 5500 of these toilet complexes across the country and that is where we try to see that these places are basically found in the important positions like the bus stands hospitals markets and in the slum areas and it has its proper utility and we try to see that the Sulabh public toilets in that sense which is been attended day and night and you have the separate enclosures for men and women for washing hands with the soap powder all these things in that sense are provided at a nominal cost and that is where we try to see that these are the initiative the cost of individual Sulabh toilet varies from US dollar 10 to US dollar thousand making upon the affordability of the economic group which is doing that so virtually it is a self-sustaining public toilets which they try to create and the whole idea in that sense of course is that they try to bring about certain amount of transformation in terms of the use of technology we try to speak about the another important component which has been projected by Sulabh is the Sulabh biogas plant linked with the public toilet and the basic idea in that sense of course is the creation of over a hundred biogas plants of around 35 to 60 cubic meters capacity which are to be constructed by the Sulabh and the biogas from the human excreta in that sense which generates around 66 percent of methane and 32 percent of carbon dioxide as the residual amount of hydrogen sulfide and the other gases so this biogas is been used in number of ways especially for cooking for lightning the mental and for heating and electricity generation all these things in that sense are there and sometimes it can run up to 10 kilowatts of generator for 8 hours all these things in that sense are basically seen eco-friendly use and also it is environmental safe in that sense and these are the things which can be installed in the public places and then we have the Sulabh effluent treatment technology which of course is the set technology and the idea in that sense of course is this biogas which is produced from the human excreta is used for variety of purposes as I said for different purposes in that sense and apart from that I think we try to see that these aspects in that sense are to be seen as basically the sources of change we also try to speak about the duckweed wastewater treatment in that sense which of course is been taken as an initiative by Sulabh in that sense and then we try to speak about the most important thing which of course is seen as the marker of change that is the its impact in the spread I think it is around 37,500 scavengers which have been liberated from the task of manual scavenging which has been in taken as an initiative by Sulabh in that sense and they are trying to liberate the scavengers and trying to give them vocational trainings and that is basically spread in terms of providing certain amount of rehabilitation also I think we try to see that putting things into practice it is not

theorization but also putting things into practice is the basic mission which I think Sulabh was trying to force upon it was trying to create a particular class of peoples in that sense who are practicing these occupations in terms of scavenging long back and now I think with the use of the two pit poor flush toilets I think they are did not require the scavengers and that is where they are the question of liberation is there and then of course they are been put for the so called re-employment in terms of the various governmental agencies and here I think the most important thing which we have to see is that now Sulabh Center for Action Sociology in that sense is been recognized and the whole idea in that sense of course is it is basically putting the center located in Delhi as the headquarter in that sense working for educating the children of scavengers and giving them the free modern educations on variety of subjects in that sense it also incorporates the vocational trainings computer trainings and the other facilities and apart from that I think the Sulabh institutes are giving training in terms of dance and music to these people and that way I think we try to see that the scavengers childrens in that sense are taught in English and they are to be seen at par with the job market and the most important thing in that sense of course is they are been taught in the national languages along with Sanskrit and that is of course is been seen as a source of it is a sign that how the Brahminical dominance on society on Sanskrit has been taken up by the children of scavengers and now they are been taught in that and that of course is a sign of liberation and also a science of empowerment in the quest for learning and we try to see that these technical and the research and development component of Sulabh in that sense is going to be quite significant we try to see that they are also promoting in the various areas having the collaboration which is Indo-German collaborations in that sense is been carried forward in that sense their linkage with the United States Indo-US ties in that sense have been there and that is where we try to see that they are trying to work even in the areas of health and sanitation especially when we try to speak about we try to see that Sulabh in that sense is working for a certain amount of construction of toilets in that sense and it is also a marker for providing a support to the elementary health education and the most important thing in that sense is that training to the 6000 women's which have been liberated from the different sectors in that sense are been taken into consideration I think somewhere we try to see that these aspects which the Sulabh public school in that sense is trying to promote is basically an idea which is basically meant for bringing about certain changes with regard to the lifestyle and I think we try to see that it's not simply restricted to a specific city or a specific framework I think it's seen as a people's movement and that way I think the Sulabh plays an important role in terms of identification of the people with regard to the people's participation in self-sustaining basis and the Sulabh in that sense is providing as an important NGO which plays for or acting as a role of catalyst in making this thing happen so that way I think we have to see that Sulabh in that sense has to be seen as a mission as a vision in that sense to increase or enhance the capacity building in that sense and the Sulabh movement in that sense is seen as a radical

movement to bring about the transformation in the structure either it's in terms of the lifestyle or in terms of education or in terms of the living standards in all the frameworks we try to see that the Sulabh movement in that sense is seen as an important aspect so the most important thing that we have to take into consideration is that we have to speak about that how the people's movement in that sense has been initiated by Sulabh and that is where we try to see the strength of this Sulabh as a case study I think trying to see toilet as a tool of social change the basic idea in that sense of course is getting the benefits or having trying to see the functionality out of the dysfunction is the crux of what the Sulabh does and trying to see within that toilet as a tool of social change we try to see that this is the liberation of the women even they have adopted the policies for what you can say adopting the widow women in that sense from Vindavan and they are trying to work for rehabilitation and trying to bring about the change in the lifestyle either it's the

restrictions which have been imposed upon the women's are been taken into consideration in a very different way by Sulabh in that sense so they are working for the scavenging women in that sense they are working for the widow women in that sense and they are also working for having this practicality of sanitation in terms of promoting the physical and the cultural amenities with regard to that and apart from that in the academia they are trying to be seen as the important source book recently through the action sociology they have tried to create a group in which the sociology of sanitation was been taken into consideration and which has been promoted as an important course in the various central ministries I also being the partner to that in terms of my contribution as one of the writer on the sociology of sanitation in terms of themes and perspective which has been published by Kalka I think the whole idea in that sense of course is that we have to see that it's not only putting things into practice also try to have these debates in academia and also trying to bring about the transformation the society and that is where we try to see that we have to see toilet as a tool of social change and which has been promoted and has been put as a new tone by sulabh International so friends I think this is all about this course I hope that it's not simply the theorization it is putting the things into practice and also giving the citations of some best practices and through that we try to see that how sanitation has to be seen as a powerful tool for social change and that is where lies the strength of this course in terms of skill building in terms of impoverishing or in terms of bringing about the new ideas and the strategies to bring about the change through this issue of sanitation so let us think big wider and we have to make our canvas more bigger in terms of putting the sanitation into the wider practices I think you may have some new ideas in that sense please try to incorporate that and the basic thing in that sense of course is that through those aspects in that sense we will be in a position to put the things in a very different way so thank you for the patience listening and hope that you will be having a sufficient understanding about these courses through these various units in that sense and thank you for your patience listening

thank you once again you