

Course Name- Sociology and Sanitation: An Introduction

Professor Name- Prof. Ashish Saxena

Department Name- Sociology

Institute Name- University of Allahabad

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Lecture 01

Sanitation Practices in a Historical Perspective

Good morning friends, I think today we are going to take up the first unit in that sense of this course on sociology and sanitation and introduction. I think the first unit itself indicates about that sanitation practices how it has been seen in terms of historical perspective and here our basic concern is to observe the genesis of sanitation. I think we have to see the global framework in which we try to speak about this issue of sanitation. I think the most important thing is that the evolution of the sanitation is in a global world and how it has come into prominence that of course is one aspect of the discussion and apart from that how the sanitation practices in that sense has been dealt by various countries especially we will try to speak about the specific countries in which we can speak about the various prevalent practices. So, the first thing in that sense is that regarding the history we try to present that there is a very little or authentic information regarding the means employed in a very early times for the protection of the public health and it is doubtless that the measures enforced in dealing with the outbreak of infection disease and the sanitary conditions is to be seen. Like I think we try to see that the term plague which was constantly occurs in connection with the literature and it has a huge outbreak along with the cholera and typhus fevers which of course are considered to be quite significant and they are basically seen as one of the deadly disease across the globe and it was during the 14th century that the plague brought from the east which invaded in the western Europe and under the name of the black death we try to see that it has its way for around a few years and one quarter of the population in that sense of the world was probably infected by that.

Even the typhus fever which appeared in Ireland and its rapidity in that sense is to be seen in terms of destruction of life almost it has also the disastrous effect and the Irish famine in that sense which was associated with that was basically seen as the believer of the major destruction. So, we try to see that it has been quite prominent that east is the permanent home for cholera and plague and for many reasons they cannot be exterminated from that and it is basically seen as that that may be out of the question of beliefs ignorance or the political conditions which has made the things more worse. And

during the 14th century there has been the conception of quarantine which right now we are seeing in which we have seen in the covid era also and this basically occurred in Venice the term quarantine is of course, an Italian derivation and which literally means that a detention of 40 days and that of course, is a prevalent meaning which was been associated with this art of quarantine and it was not an effective sanitary method, but it was basically seen as that in 1880s the public sanitation was been placed on the scientific basis and the new era was made for protection of the public health. And we can say that it was across the world common researches in that sense which has happened with the people like Pasteur and Koch who were basically the French and the German bacteriologists and they were basically seen as one of the pioneer who had spread out this germ origin of infectious disease and from there onwards we try to see that there is a promination of the issue of sanitation.

The announcement of this discoveries in that sense which has been discovered by them was basically put for bacteriological investigation and we try to see that it includes many other list in that sense in the later phase in terms of the infectious disease. To name a few it was tuberculosis, cholera, plague, typhoid, fever, diptheria and many others relevant disease. So, we try to see that they were basically seen as the infectious disease and it is basically that there has been an exhaustive investigation to understand about the infectious disease. So, we will try to see that the exhaustive investigation which took place during the understanding of the infectious disease was basically been seen as transmitted. And it was seen that the infection in that sense was related to the issues like clothing, baggage, money, cargos of vessels and many other ordinary and common means of infection and which is commonly known as fomites theory whereby the things the infectious diseases in that sense are been transmitted through the objects.

And we have to see that how these aspects in that sense become quite critical in the various phases of the historical analysis and we basically try to see that the yellow fever in that sense which was also seen as one of the most deadly disease was seen as an important aspect and it was basically been transmitted through the clothing, baggage and the other things. But the whole thing in that sense of course, is that it was this specific mosquito in that sense that is *Stegomyia* which was basically responsible for the transmission of this yellow fever. So, we try to see that historically we had find the disposal of the land we have the construction of sewers, we have the disposals of the streams and various methods for purification of the streams which was been carried forward in the larger cities. The sewage farms one of the first method of sewage disposal was been seen in cities like Berlin, Paris and the larger cities. In Berlin when the farms were first established the city attempted to sell the vegetable grown on these farms and the sewage farm vegetable could not be sold the city then leased the farms to the present and the present grown in the vegetable readily to the market.

So, we try to see that there had been certain sand beds which requires a lesser area in that sense and the whole idea in that sense was that how the sewage is spread over the beds of stones. And we try to see that in order to destroy the organic matters by aerobic bacteria there was various settling tanks which were been now commonly called as the septic tanks and they are used alone as the supplementing methods in order to destroy the waste. So, we basically try to see that was one aspect in that sense then the waste from the factory which was equally seen as important with regard to the sewage and it has been found that these sewage understanding in that sense has something to do with the practicality of the factory system. And it is basically that we try to speak about that there has been the cities which are located near to the sea coast and the disposal of the sewage was basically seen with regard to the sea coast and the most important thing was that the ocean without any injury was drinking the water supplies and this was basically causing the various disease. So, we basically try to see that these sort of an understanding in that sense has happened in certain other cities like Ohio Missouri or Mississippi rivers which were basically been located near to the areas in that sense where these rivers were going.

So, basically we try to see that the dilution that the oxygen dissolved in the water serves to destroy the organic matter and the bacteria of the sewage was then been put for treatment. So, we try to see that these are certain historical ways in which we try to speak about that how the sewage system in that sense had been mapped into the picture and we try to see that the one of the most important achievement in that sense which has been talked by historian like Leckey which was basically trying to speak about the map of life and there of course, he was trying to speak about in the close of the 19th century that the trump of sanitary reforms are perhaps the brightest page in the history of our century. So, that is how we try to see the relevance of sanitation across history and the small pox which was basically seen as stamped out from the every land was seen as one of the biggest another important deadly disease and the plague has been put under control typhoid was been abolished, diaphytheria has been mastered, but then we try to see that many other disease in that sense come into the picture. So, we basically try to see that we have the issue of small pox which came in the later phase and that has stamped in NewYork and we try to see that there has been the search for the vaccines in that sense the people in that sense who are sufferers in that sense we try to see that how they have to be put into relief at the earliest. So, basically we try to see that these are certain things in that sense which happened it is certain that the thesis on public sanitation was put on the foreground in terms of the priority and that of course, is trying to see that how the larger population can be saved in that sense and it is in that fashion we try to see that the sanitary science historically speaking is was put for the high watermark in terms of the past centuries.

In the countries like England, Ireland, Scotland we try to see that sanitation implies the state manship that of course, is the temperament in that sense in which the sanitation

issues have been taken into consideration it is the state medicine and we try to see that how the Britain poor in that sense have to be served with regard to the medicine which has been supplied by the government in that sense the government utilization of the anti toxins in that sense these are certain things which have been the initial initiatives with regard to handling of the issue of sanitation related to certain disease. And we try to see that we have certain other aspects in that sense which we try to see are going to be important like we try to see that the public health administration in that sense which was basically seen as one of an instrumental aspect in that sense with regard to the state and the city life and that we try to see is going to be an important landmark and we try to see that this administration in that sense which was been put in terms of legislation in that sense and it also is a marker for civilization in order to understand the word history. And we basically try to see that this aspect in that sense which we try to see in terms of putting certain things for the state sponsored cause in that sense was seen as an important marker for the issue of civilization. So we try to see that another aspect in that sense which can be reflected with regard to the second stage is the introduction of the sanitary appliances for the health and the comfort of the different classes and we try to see that there has been the case where the the Greek worship the hygeia and the various idols which are seen as the devotees who are seen as the god of the disease in that sense and that is where we try to see that these arrangements in that sense have been put forth and we basically try to see that it is observed that developed countries in that sense had set the standard solutions for the sanitary disposals of human based through the sewage system. And we try to see that these arrangements in that sense have been seen as the marker for the other developing and the underdeveloped countries and we try to see that the modern sewage system which has been introduced in London in 1850 long back and followed by New York in 1860 and later on we try to see that Calcutta in India was the next city in the world to have the privilege in 1870 and yet we try to see that this there was a partial sewage system in that sense across and we try to see that these arrangements in that sense have been made which tries to speak about that how the natural resources in that sense have to be taken into consideration when we have to clear up with the human excreta and it was basically seen that to flush means to have at least 10 liters of clean water which has to be put for drain.

So, this is how we try to see that we have to have the arrangement for water in terms of large dams and also the irrigation system in that sense which requires the water and parallelly and equally important is that the sewage plant in that sense also has to be taken into consideration the utilization of water. So, we try to see that we have to have certain issues in that sense like the rivers in India today which we try to speak about is based on that how the most what you can say auspicious river in that sense which was been treated that is the holy Ganges river in that sense was been put into trouble because of the issue of pollution and now I think the present government is basically trying for the various projects in terms of cleaning the Ganga in terms of Namami Ganga projects in that sense

and the basic idea in that sense of course, is that how we are going to speak about these aspects in that sense. I think somewhere we have to see that the sewage system which has been built to protect the public health has to be seen seriously in that sense because it is basically safeguarding them against the health hazard and due to that we basically try to see that septic tank systems which have been quite expensive and involves the large volume of water for flushing these things in that sense has also put certain constant with regard to the shortage of the drinking water in the most urban areas and there are many other parallel problems which have been associated when we try to speak about the septic tank it is basically the foul smell or sometimes the prevalence of disease in that sense. So, we try to see that the septic tank latrines were developed nearly 400 years ago and it was introduced in India around 150 years ago and not less than that we try to see that we have the spread of these things in urban first and followed by the rural in the later phase. Now, here I think one of an important and interesting thing in that sense of course, is that there is the goddess of sewers and this of course, is been seen as quite relevant because the goddess of sewer in that sense was considered and the name of goddess was the Cloacina and the Cloacina in that sense was seen as something which is meant for the safeguarding of the mankind and it was been found that the Romans in that sense during the course of their empire in the 615 B.C. We they try to worship these deities and one of them in that sense was the goddess a Cloacina and we try to see that the people in that sense of Rome they had the they try to respect they try to worship the goddess in order to safeguard the issues related to the sewers and we try to see that the Rome's public work infrastructure in that sense was basically related to that. And Cloacina was basically seen as the patron of goddess of the Cloaca maxima which was basically seen as an another important aspect as such that we have the patronage in that sense which was been associated with the issue of sewage in that sense. We try to speak about that there are the goddesses of purity, the goddesses of filth and the protectors of the sexual intercourse in the marriages. So, these are certain things in that sense we try to see that we have associated Venus in that sense which was basically seen as the Venus Cloacina. So, there are certain goddesses in that sense which are been attached and are been worshipped in Rome through the term phases of civilization that how they were trying to safeguard the issue of what you can say the sanitary arrangements.

So, the first sewer segment in that sense which we try to see which is in relation to the Cloaca maxima was started in the 1500 BC and where we try to see that we have certain issues in that sense we try to speak about the Latin verb which is cloara or cluere which means to wash, to purify or to clean. And from this letter Latin word cloaca we try to see that the meaning of the sewer in that sense has come into prominence. So, I think there is a Latin meaning in that sense which has been associated from where the word sewer has come into prominence and we try to see that the goddess of sewer soon has been recognized in the Roman lifestyle and that of course, has been seen as one of an important marker for the emergence of the concept in the gradual phases. So, we try to

see that we have various important nations in that sense various countries in that sense where they try to design the issue of sanitation in their own way and the most important thing in that sense of course, is that they wanted to put the filth off and try to prevent the disease in that sense that was one important aspect. I think when we try to speak about the historiography of sanitation which was been prevalent in various prominent nations I think the first in that name comes is the Egyptian sanitation because I think Egypt in that sense has a better what you can say structured arrangement for looking to the urban scenario in that sense and we try to see that it was basically the director general of sanitary department of Egypt which was long back in 1893 who try to document the various practices which has been associated and we try to see that Egypt in that sense was basically seen as an important centre for commerce between the east and the west and we try to see that it was also seen as an highway of epidemic disease.

So, we try to see that the sanitary state of the country was become very important in that sense and for that the director general J.G. Rogers in that sense was trying to emphasize upon the fact that how we can have certain arrangements through which we can safeguard the population of Egypt and for that I think the most important thing in that sense of course, is that they had certain briefing on the polluted water, on the polluted soil, overcrowded and insanitary dwellings in that sense, no building regulations, stagnant ponds and many other aspects in that sense which has been faced by the human habitation. So, virtually we try to see that these are the arrangements in that sense which has been visualized and we try to find out that gradually there was a sanitary department which was been organized and for that I think the basic thing was the charge with the multifarious duties because it was the basic department which was basically handling the issue of sanitation. It was basically dealing with the civil hospitals of the country, it was also looking after the outbreak of the typhus, the smallpox and the vaccination, the registration of the birth and the death rates and many other things in that sense which has been part and parcel of this sanitary department.

So, it was basically a bigger or the mega project in that sense through which on the banner of the this department we try to see that the practices of sanitation in that sense has come into prominence. And the most important thing is that there was a scheme which has been adopted which was basically trying to speak about that how we can have the control over the drainage system in that sense which is basically falling into the reverse in that sense especially issue in that sense which have been taken into consideration was that we try to speak about that how the reverse and streams in that sense can be safeguarded because I think they will be the biggest carrier of the issue of sanitation in that sense in terms of what you can say spread of the disease. So, that way I think these are certain interesting things which are related to Egypt and that is of course, seen as a marker for various countries in that sense. Then I think we can speak about the sanitation in England and as we know that England in that sense had its own rapidity in

terms of the industrial growth and the industrial revolution was been associated. So, we try to see that the experience of rapid urbanization economic growth and the environmental degradation all these things in that sense were going to be quite critical and crucial and we basically try to see that there has been various efforts in that sense which has come into the picture and we basically try to see that it is against the background that political and administrative in activities which were basically dealing with the issue of environmental degradation was considered to be important.

And it was in 1842 that Chadwick has public Edwin Chadwick who has published detailed report on the sanitary condition of the laboring population of Great Britain and it has been argued that it was the insanitation and poverty rather than the defects in the character which has basically led to the bad habits and the poor conditions of the working class. Hence we try to see that the sanitation reform in that sense was seen as an important aspect in order to improve upon the conditions of the poor. The sanitation reform in that sense became a political issue because it requires the state intervention which has to be implemented. We try to see that various efforts have been made especially in 1835 the municipal reform act which has come into prominence in Britain and the whole idea in that sense was that it has to have certain issues with regard to the health conditions. In 1848 we have the public health act which has come into consideration in that sense and gradually we try to see that various central board of health has been created.

So, we try to see that Chadwick's contribution in that sense through these references of these initial efforts was seen as quite significant and we basically try to see that late 1860s is the marker in which we try to see that the public health and sanitation movement which has become more effective. And this is basically that in sanitation act of 1866 which of course, is seen as an important marker in the history of England which becomes quite prominent and later on we try to see that it has been replaced by the act of 1848. So, virtually I think there has been the successive acts in that sense which was basically seen as an important marker for the issue of resolution of the sanitation related activities the creation of the departments as such. And the most important thing in that sense was it was basically been seen that when we try to speak about the issue of the lower class or the middle class I think that the concern for sanitation for them was been seen on priority. So, in Britain the growing public awareness of the poverty and the increasing middle class in that sense was basically seen as one important aspect.

We basically try to see that how things have been changed and the most important aspect in that sense of course, is that we try to speak about that the success of sanitation movement is to be seen in terms of disciplining of the human behavior. So, I think that is where we try to see that sanitation movement in that sense heads bearing on the human behavior and that was basically seen through the intervention by the government and that was one biggest attempt which has been made by the Britain in that sense which was

been the marker of the industrialized society and we try to see that there was a quest for disciplining of the working class which was been seen as something important because it was to be seen as a threat from below and in order to have the inclusion of these categories there was an effort in this particular direction. Then the next country in that sense home we can refer to is the United State where we try to see the issue of sanitation. I think urbanization in that sense of course, is seen as an important aspect with regard to the issue of sanitation and it was in 1790 we try to speak about that 3.3 percent of the population of United State was urban.

So, virtually we try to see like gradually 1900 it has reached to the level of 33.1. So, there is a significant increase in the urban population and the city and the sanitation in that sense were been seen as interlinked in that sense and the individuals needs the fresh air, the pure water, the good food, safe shelters and they should have the clean body. So, all these things in that sense have become very significant as the urban population in that sense started swelling and the idea of citizenship in that sense also was equally important. So, for that I think the United States in that sense had done its best for having certain sanitarian understanding in that sense with regard to the having of certain provisions in that sense.

I think one important thing which we try to see with regard to the sanitation services in that sense is that they were planning for the airport which was basically the date country port airport authority which was established in 1945. And even before the opening of this airport there we try to see that is an installation and operation of the aircraft which is basically trying to store prepare and cook the foods for the employees. So, we try to see that there has been certain arrangements in that sense which happened in that sense and the most important thing in that sense is that the in New York City sanitation serve as a model for many other cities across the globe. And we try to find out that the street sanitation and the related problems of garbage collection in that sense was seen as a model in that sense. We try to speak about that the majority of the urban dwellers they were trying to speak about that how the urban sanitation in that sense has to be handled seriously and the United Nation in that sense was seen as one important marker.

The most important thing in that sense is that the United States with regard to the germ theory of disease in that sense were trying to focus more upon the issue of urban sanitation. And the most important aspect in that sense is that they basically try to speak about that how we can have the yellow fever control over the yellow fever the cholera or the smallpox. And there has been the couches of god which were basically seen as what we can say the vitiated atmosphere in that sense. And we try to speak about which Edwin Chadwick in that sense was trying to refer to that the American experts in that sense were involved in planting the trees rather than cleaning the streets. And the trees which serves as the lungs or the ventilators was been designed and that of course, was the basic attempt

which has been made a physicians writing in 1849 explained that if the cities must exist let many large space to be devoted to the parks.

And that was of course, the model which has been thought of and it has been found that they were basically the sources of oxygen the people would have been supplied with the let us stay in oxygen in abundance will have the better living conditions. So, in 1890s reforms we try to see that how the mayor of the city in that sense was trying to see the reforms of the urban health. And we basically try to see that the United States in that sense which was setting itself as a model of development with regard to the issue of the urban sanitation. We try to speak about that there has been various attempt in that sense which happened and the most important thing in that sense is that it tries to speak about certain issues which has something to do with the theory of scavengers. And we try to see that working as a team for several men which were watered down a straight which were using or sweeping the roads the gutters in that sense as such and they were carrying the refuse into the house horse driven carts.

these are the models which have been created and been projected regarding the scavengers who were basically the cleaners were into the cleaning job. And we try to see that there has been the accumulation of manure and virtually we try to see that they it is basically seen as a consequences of urban living. But believe that the pigs which are basically seen as eating the having the eating habits they try to be seen as a chief answers to the problem of the collecting garbage. So, we try to see that we have that the city scavengers in that sense the pigs are the ugly broods in that sense and they were basically seen as having the old horse hair trunks in that sense. And all these things in that sense were been treated as a or seen as an object in that sense which has which is going to be for supporting or having certain implications on the sanitation.

So, it was basically seen that during the 1850s and 1860s the pigs gradually disappeared. Because one reason in that sense was that sanitation and bad publicity of the Europe has been travelled in that sense as such and because of that particular reasons we try to see that the pig culture in that sense to overcome the issue of garbage in that sense has been put at the backstage. So, we try to see that the regular garbage collection in that sense and also along with that the removal of the pigs in that sense these are certain things which have been taken into consideration by the municipal sanitation. And that is where we try to see that the industrial revolution in that sense which has been visible in America in that sense in terms of science and technology. They were trying to put things in a different way and they were basically producing certain sophisticated equipments in that sense the use of engineering in that sense as such for the cleaning purpose and there we had the specific research and development department which was basically meant for working for the technology in terms of the issue of sanitation.

So, that was how the United States in that sense was trying to figure out the things. Next I think we can take up the case of the Japan and where the how Japan in that sense was trying to see the sanitation in their own nation. we try to see that Japan in that sense urban population which was been seen as quite represented and the most important thing in that sense of course, is that we try to speak about like the European city or the America in that sense we try to see that we had certain arrangements in that sense which have been there in so called Japan. And the most important thing is that there has been certain practices with regard to what you can say the throwing away of the sewage it was basically the manpower of the boards which has to carry the garbage and the refuse in that sense or the human waste and it is been seen that there has been the attempts in that sense whereby there has been dirt which has been carried forward and we try to see that the very first system in that sense which came into prominence is in 1590 that is the first system constructed on the Kanda system which is called as the Kanda system. And it was basically seen as that the water was carried to the city limits mainly in the area where the things are to be put in a different way and there are also the underground wooden pipes within the cities.

So, this Kanda system was having specific aspect of subsidiary ducts in that sense to do the water and it has to be seen as the way of supplying the pure water in that sense that was an attempt which has been made in Japan. And the most important thing in that sense of course, is that the basic difference between the waste disposal in Japan and in the west was that the human etcetera was not regarded as something that one paid to be removed, but rather it was been seen as a product with the positive economic value. So, the night soil of Japan cities and the Chinese as well was long used as a fertilizer. So, I think in spite of seeing it as a waste it was been seen as having a value and with that growth of Japan's population we try to see that the arable land in that sense was been used for the purpose of fertilizers and that of course, was seen as something which was remarkable viz – a- viz the west. So, we try to see that the Osaka's night soil which was used as a fertilizer for the surrounding farms or the villages in that sense was seen as an important aspect and the loads of ships in that sense were carrying forward this garbage and trying to distribute it and that is how they were trying to see the things it was having the unpleasant order and the people were complaining, but in spite of that the unavoidable what you can say manure boards have to carry to the different places.

So, the waste in that sense was been put into the best in that sense through the use of fertilizers. So, the night soil which was basically seen having is having a economic good and also the ownership on that it is the monopoly of the rights which all have been seen as part and parcel of the issue of sanitation. So, virtually we try to see that the night soil in that sense which was basically been seen as of various types it is a household waste which was one category the kitchen garbage which we say or we have the trash discarded along the roads and the waste water drain and then we have the junk floating in the water

flow waterways or sometimes the waterways the waste from the fires all these aspects in that sense were seen as the part of garbage and in order to help in order to resolve that I think the urban practices have been there. So, in 1648 if you try to see the city regulations tries to create the small huts and the toilets along the banks of the rivers and this was basically seen as a way in which they can minimize the issue of spread of sanitation of the dirt in that sense as such and we try to see that the disposal of the other forms of waste also was been seen. So, it was basically that we try to speak about in terms of the specific understanding that how the basic purpose of cleaning the river in that sense was been seen as an important aspect and we try to see that the specific cities related to Osaka in that sense and Edo which were the two prominent Japanese cities they were trying their best to have the proper disposal of the waste material and the necessity of keeping the streets clean and that was basically an attempt which has been put forth and the metropolitan sanitation in Japan which were or serve in the mid 17th century in that sense we try to see that their basic attempt in that sense was that how finally, we can have the concern for the hygiene the food and the drink in that sense and also we try to see that the government played a major role in settling and maintaining the standards of sanitation in the cities.

So, that is how we try to see that Japan in the in its own way try to handle the issue of sanitation across and we basically try to see that the most important thing the case studies which we try to highlight through the various case studies of the various nations we try to speak about that the historical understanding of sanitation how it has emerged in various civilizations and then the specific nations in that sense which were serving this particular issue, but the most important thing in that sense of course, is that people they try to treat things differently in their own way and that is how we try to see that the issue of sanitation with regard to the management come becomes important. So, we have to see that sanitation management in that sense is seen as another important aspect it is not simply the historical analysis, but we have to see that sanitation management how it has to be seen in the cross cultural framework and that is where we try to see the strength lies and we basically try to speak about that we cannot exactly speak about the standards which has been set for sanitation and hygiene, but definitely we can speak about the fact that how we try to speak about that in the different parts of the country we have the prevalence of certain specific conditionality's like in France which was no longer seen as primitive it was been seen as modern. So, the problem of sewage and contamination in that sense the regular water supply in that sense were seen as the one bigger problems major sanitation problems which remained in that sense we try to see the same is the case with the Britain in that sense as such and we try to speak about that the Queen Victoria who was trying to be focus upon that how the death of the typhoid fever in that sense is going to be controlled. So, I think there are certain things in that sense which we try to see in terms of management which has been carried forward and we try to see that like the cases in of Japan in that sense in 1870s which was basically trying to speak about the

better class of private homes and that is where we try to see that the attempt was been made to make the things more clear. But the most important thing is that we try to have some insights from Japan in that sense as such which were trying to see the concept of pollution in a different way and much of the pollution in that sense in Shinto religion in that sense is ritualistic, but it is also considered that how they were trying to purify the whole issue in terms of contamination and cleanliness.

And the basic idea in that sense of course, is that they have to deal with the various aspect related to purification the ritual related to clean and purity in that sense and the emphasis of purification is something which was unique of Japan. So, and that particular thing I think is also prevalent in various other Asian countries like India also where I think the emphasis was given upon how that element of purification in that sense is going to be important. So, we have to see that the sanitation management in that sense was another important aspect which has to be taken into consideration, but beyond that I think we have to speak about the environmental sanitation also which has its long bearing in that sense because when we try to speak about the environmental sanitation I think the basic thing that comes of course, is the contribution of Britain. And that is where I think we try to see that how they try to put the things in that sense how they were trying to manage different issues in that sense across the globe that was basically seen as a model because they were also trying to put those practices into the various colonies in which they were trying to have a certain control in that sense. And basically we try to see that the European township in that sense which has been there I think there has been various changes in that sense which happened with regard to the issue of sanitation that is the cantonment ordinance of 1904 which has been there then the instruction of political and the other officers then the township of public health ordinance has came into the picture and then the town planning memorandum which came in 1926.

I think this is how we try to see that environmental sanitation in that sense was been taken into consideration and it was basically seen as the sanitation syndrome and I think when we try to speak about the sanitation syndrome I think Swanson how he was trying to speak about this metaphor he was basically referring to the sanitation as a means of protecting peoples health served to legitimate the draconian measures against those demands deemed to be threat to the health. And that is where we try to see that sanitation syndrome in that sense is going to be quite crucial and for that I think the environmental sanitation in that sense is going to be important. I think when we try to speak about the European township and we try to speak about the way in which they were trying to handle the various issues and the most important thing in that sense is that they were trying to basically put the things into practice across and we try to speak about the issue of privacy in that sense which has been maintained they have to have the isolated servant quarters in that sense in the back compound. So, there are the European houses which were seen as a model and that has been imitated by various other countries in that sense

then we have the functional establishments like the churches, the hospitals, the recreational facilities which have been then in Europe and I think they were the source of inspirations for maintenance of the sanitation in their own way. And then I think let us try to come to the South Asian peoples perspective on sanitation because I think we have to see what has been our practices and for that I think we can say that there has been certain attempt in that sense which has been there especially the first South Asian conference on sanitation which took place in Dhaka in 2003 not very early in that sense as such and there we try to see that the understanding and creating the demand for encouraging the wider community participation was been emphasized.

So, it was basically seen as this event was seen as a marker of creating or generating the access to sanitation as one of an important agenda and the whole idea was that peoples perspective regarding the sanitation and hygiene how it has to be taken into consideration, what is the role of the state and the civil society that was another important aspect and beyond that we try to see that the major perspective in which the sanitation was to be understood with regard to the India, Bangladesh, Nepal, Pakistan and Sri Lanka the various South Asian nations in that sense is that the first thing is that it has to be seen as a matter of dignity to have the issue of sanitation. So, understanding of sanitation was closely related to the open defecation and the need of toilet was specially needed and that has to be seen in terms of the fact that whether recalling the exposure of sanitation intervention of the what you can say government in that sense becomes important. So, it was seen as a matter of dignity and trying to see the practical aspect of the convenience that becomes more important. So, we basically try to see that this is how we try to speak about the safety nets which are related to the women and the children's in that sense as such that was basically seen and apart from that I think the dignity in terms of availability of safe water which was also seen equally important with regard to the poor sanitation conditions. So, we try to see that open fields the rail tracks which has been put as unsafe in that sense as such whereby the people were basically been seen as been under threat.

So, in order to overcome that I think this was one important aspect to see things in terms of the dignity in that sense was been seen as one important aspect. Another was the issue of impact on health, education and poverty. So, the second component in that sense which is equally important is that sanitation has a bearing on the education, health and poverty and for that we basically try to see that how the various countries in that sense they try to constitute the issue of sanitation and hygiene. And the most important aspect is that the environment which leads to the specific disease unhygienic environment leading to the specific disease how we can overcome them and for that I think there was a need for having the right way of handling the issue of food in that sense drinking water and many other things because that is these are the sources of carrier of the disease in that sense. So, I think that was been taken into consideration and then the third important aspect of course was sanitation as a right.

So, basically when we say sanitation is right the basic idea in that sense of course is that it has to have certain political bearing in that sense as such and you have to see that it is basically the using the hygienic latrines the safe drinking water and the improved hygiene practices which are going to be important and for that we basically try to see that how to have the disposal of waste water in that sense or the garbage is in that sense that was been seen as an integral part of sanitation. So, ultimately we try to see that it was basically seen as a successful sanitation program and the success in that sense lies with the fact that it was basically seen as an appropriate external catalyst for sanitation in terms of promoting the hygienic behavior. It had an inclusive approach in that sense especially for the marginalized communities of an individual it was having an appeal of the responsive local leadership that was given new emphasis and also the involvement of the local people from the very start. So, these are certain things and apart from that I think the basic attempt was to have the community acceptance in terms of ownership of the program and the active participation of the women in the decision making. So, these are certain things in that sense which are going to be the landmark for this South Asian conference in that sense where we try to see the issue of sanitation in that sense has come into prominence although it was not very early which we try to see the Dhaka definitely has taken a lead in this and they basically try to work for that how the issue of sanitation in that sense can be maintained.

And finally, then we try to see that how we can locate the understanding of the historical evolution of sanitation in India and for that the basic thing in that sense is that it is a historical notion in that sense which we try to see that how the social scientists try to see the colonial rule because I think the colonial rule in that sense has a strong bearing with regard to the issue of how they wanted to treat the whole aspect. And the most important thing in that sense of course, is that India in that sense which has been seen historically as having the diversified population in that sense and the issue of sanitation especially it was been the countries of the villages. So, I think the ineffective village sanitation in that sense was been seen as one important aspect and because of that there was propensities of high death rates and also the recurrent famines and epidemic in that sense were going to put the things very differently. So, virtually we try to find out that the attempt which has been there in India especially the Britishers in that sense they try to work for the things in their own way and the most important aspect is that we have to speak about that how the institution of sanitary improvement the administration in that sense they try to emphasize upon certain significant practices. I think it is basically in 1859 we try to say that for the nightangle the British colonial government established a specific committee which is called as the royal commission on the state of the army and this was basically seen as an important commission because the commission members in that sense they were trying to see apart from the question of humanity the introduction of the effective system of hygiene in India and I think 1859 in that sense was seen as an important marker where the focus was made specifically for the efficient system of hygiene and the royal

Commission insisted that there should be made certain provisions in that sense in terms of the climatic understanding in that sense as such and we basically try to see that they try to focus upon the issue of the social habits and the living conditions.

The basic aspect in that sense which is going to be important is that what Florence Nightingale put it in terms of a praise is that one of the most important result of inquiry of the royal commission was to destroy this bug bear and that of course is where we try to see that the colonial rule in that sense was trying to have certain civilian sanitary practices which they wanted to instill in the country in the end of the 19th century. So virtually we try to see that the epidemic in terms of plague which has happened in 1896 to 1897 the royal commission was standing hard to throw that out and this commission in that sense was trying to make out the provisions through which they can make it better and I think for that the Indian medical services in that sense the various commissions in that sense have been implanted and I think the model of the army revealed that how the India sanitary future has to be seen and the basic thing in that sense of course is that we try to speak about that how the India was seen as what you can say one of the specific place in that sense in terms of maintaining a growing popular phenomenon of what you can say the use of the various practices against this deadly disease of smallpox to prevent the spread of cholera or maybe to prohibit the earliest gatherings. All these things in that sense has been talked about by J.A.Baines who suggested that there has to be certain probation with regard to that and for that I think the various sanitary measures and their practices in that sense has been talked about by various people like we try to speak about that the European India in that sense at that period of time the basic thing in that sense was they wanted to have a concern for the sanitary reforms and the most important thing is that they were basically trying to speak about that how they can overcome certain disease especially the sexually transmitted disease which were to be seen with regard to the entry into the cantonment magistrate has that power to see that checks.

So we basically try to see that initial attempts in that sense which has been done by the British colonial rulers in that sense they were trying to speak about or try to see how the faces and the urine and how the dry earth in that sense has to not be seen as a burden of the what I can say the bad sanitation condition and it was basically seen as that ignorance is basically seen as the carrier of the infectious disease and in order to overcome that I think the sanitation movement in that sense had been planted and the basic attempt in that sense was that colonial rulers in that sense they were trying to have their own way of tackling with the issue of the cholera epidemic and their concern in that sense was that how they can have certain measures and the most important thing in that sense was that they try to speak about the successful sanitation movement especially in the 19th century Britain which has been there in that sense we basically try to see that there are certain successful cases which have been there in Britain and they wanted to make it practice for the middle class of the Indian population in that sense and then I think it was also seen as

that we have certain other check and control mechanism in that sense which also has been talked about especially the use of the modern medicine and the civil engineering in terms of having a success of the issue of sanitation and the public health movement so these are certain things in that sense which has been talked about and the most important thing in that sense is that we try to speak about the contribution of Colonel W.G. King and he was trying to speak about with regard to the scientific and practical sanitation when he was referring to the Madras presidency and the most important thing in that sense was he was trying to emphasize upon the role of the Indian medical association in that sense as such and the most important thing is that we try to speak about that how sanitation demands in that sense are to be seen not in terms of contradictions but they are to be seen in terms of the specialist and the basic idea in that sense is that how the Indian scenario in that sense has to be seen I think there has been certain specific what you can say sanitation problems across history in 1935 the British truth which has been suffered due to sanitation related disease which has been highlighted by committees related to the BHORE committee or the Environmental Hygiene Committee in that sense which recommended the better sanitation services in India and in the first five-year plan we try to see that the budget allocation has been there to some extent with regard to that particular issue and we try to see that in the fifth five-year plan the priority to sanitation has been seen as the elimination of the abject poverty which he is having its bearing on the issue of sanitation that was basically seen as a one of the important aspect so virtually we try to see that in the 1980s the rural India in that sense was said to have the sanitation coverage rate which was across the globe in that sense as such we try to see that various centrally sponsored rural sanitation program which has been there in that sense and especially I think the subsidies for the Schedule caste, the Schedule tribes and other landless labors has been projected and the most important thing in that sense of course is that there has been certain implementations in that sense in terms of the total sanitation campaign which has come into picture in 2001 and that is where we try to see that from history to the contemporary scenario we have the contribution of various non government organizations community based organizations and also we have the community governments in that sense which are working for that so we try to see that the total sanitation campaign is part of the sector reform projects which has been introduced in uptill 1999 and that is where we try to see that how the sanitation status in India has changed I think as per the census 2001 only 36% of the population has an access to some form of sanitation which of course is seen as a vast figure and we try to see that the rural India has only 22% so that way I think we have to see that the total sanitation campaign which is to be promoted the basic idea in that sense is that can we think about increasing the number in terms of having the access to the proper sanitation condition and the central rural sanitation program in that sense has come into the picture and the most important thing in that sense of course is that we have to speak about the inter linkage at the various levels either it's the district water and sanitation mission or we try to speak

about the total central campaign in that sense or we try to speak about the community sanitary complex or the Anganwadi toilets or maybe the rural sanitary marts all these things in that sense are to be seen in terms of coordination and we have to see that the toilet coverage in that sense has to increase drastically so I think when we try to speak about that the most important thing in that sense is that we try to see that the percentage is very high in case of Orissa in that sense as such which has around 73.88% followed by 72.69% in Assam and then 71.81% in Chhattisgarh and we try to see that when we try to speak about the closed drainage and the other elements in the rural areas these are the states which I was just referring and then the non availability of toilets within the house is most drastic in the case of Bihar which is around 71.94% in Chhattisgarh it is 76.78% and in Jharkhand it is 73.03% so basically we try to see that there has been significant what you can say representation of toilets in terms of adversities which have been there across the state it is not the uniformity which is maintained and the most important thing in that sense of course is the issue of urban areas where we have the percentage of households which are not having the toilets is basically been seen as one important aspect with regard to that so ultimately we try to see that these are certain issues which has been taken into consideration and the most important thing is that there has been the million development goal now which is basically seen as one important marker for improving the sanitation issues in that sense and the basic idea in that sense of course is that it tries to focus upon certain issues which are related to the issue of sanitation directly or indirectly and that way I think we try to see that the various urban schemes in that sense either it is the scheme related to the Ministry of Environment and Forest or it is related to the water quality management aspects in that sense or the water prevention and control of pollution act in 1974 all these things in that sense are basically working for bringing about certain reforms in the issue of sanitation I think the Environmental Protection Act 1986 has to be renewed drastically in terms of the new aspects of sanitation in that sense we have to have the institutional setup for sanitation and water management which is going to be important and then I think within the governmental framework we have to speak about its spread into various cities and basically we try to see that the main aim of the various understanding in that sense with regard to the 73rd and 74th amendment with regard to sanitation has to be put into practice in terms of totality I think the need for the community based organizations that is the CBOs in that sense is going to be important and within that framework we have to see that the implementation of the SSPs in that sense has to be there so it's a the significant departure is should to be seen from supply driven to the demand driven approach and that of course is what we have to see so ultimately we try to speak about the fact that the sanitation concern in that sense is going to be meaningful in India and I think historically speaking things have changed now even the present government is giving due emphasis upon this issue of sanitation and the whole idea in that sense of course is that this sanitation in that sense through the swachta abhiyan can bring about the new transformation and the basic idea in that sense of course

is that we have to speak about that how we can have the maximization of the sanitation in terms of its good practices which has to be carried forward across the state and we have to have certain amount of rehabilitation practices in order to have the better facilities of toilets in that sense as such and I think that is where we try to see that the the poor in that sense the poverty in that sense all these aspects in that sense can be broadly covered or taken into consideration if you try to speak about the issue of sanitation in a concrete sense so I think that is where we have to see that we have to address these issues I think this historical trajectory will give you a global concern about how the sanitation has come into the framework in that sense we have the goddesses of sanitation we have the various practices in through various civilizations we had some good practices like has been seen in Japan as how the garbage was been seen as a value added thing in that sense so we have to see and get some insights about the global framework in which sanitation has been practiced and let us see that in coming what you can say units we are going to discuss about the specific meaning of sanitation which of course will be there in that sense and then I we will try to speak about the nature and the scope and the things so friends I think thank you for this what you can say patients listening to this particular issue and I hope that this starting what you can say understanding in that sense will give you a holistic understanding in a global framework about how we have to deal with the issue of sanitation and how what is the scope in a broader sense so with that I think we will meet again thank you for the patience listening.

Thank you.