MEIJIN SAMVAD

WEBINAR TRANSCRIPT

Webinar Title:

"Global warming is no myth! Urban water crisis and management strategies of India and Japan"

Date: May 16, 2023

Speakers: 1. Dr. Mikio Ishiwatari.

2. Dr. Namrata Chindarkar.

Moderator: Mr. Saideep Rathnam

ABOUT THE SPEAKERS:

Dr. Mikio Ishiwatari is visiting professor at the University of Tokyo. He is a senior advisor at, Japan International Cooperative Agency (JICA) and in Japan Water Forum. He is Ph.D. in International Studies and MSc in Urban Engineering.

He also has been engaged in flood risk management and water resource management in East Asia since 2013. He joined the World Bank as Senior Disaster Risk Management Specialist in 2011. He worked in various positions in water resources management at the Ministry of Land, Infrastructure, and Transport, Japan, and worked as Urban Development Specialist at ADB. He is the senior deputy director of River technology and Management, in Japan.

He has authored the book " Learning from Megadisasters: Lessons from the Great East Japan Earthquake". He has contributed immensely in research work on disaster risk reduction and climate change adaptation.

Dr.Namrata Chindarkar is an Associate Professor at the JSW School of Public Policy (JSW-SPP), Indian Institute of Management, Ahmedabad. She has also served as the Chair of JSW-SPP. She is a Fellow of the Initiative for Sustainable Energy Policy (ISEP) at the Johns Hopkins School of Advanced International Studies. Previously, She was an Assistant Professor at the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS), and a faculty associate at the Institute of Water Policy, NUS.

Her research addresses questions pertaining to sustainable development and social policy. Currently, her three key research themes are access to basic infrastructure (energy, water, and sanitation); individual and household welfare (poverty, inequality, subjective well-being); and gender and development. Her methodological approach is the quantitative analysis and policy impact evaluation using primary, secondary, and administrative policy data.

Dr. Namrata Chindarkar's research has been published in top development and policy journals including Bulletin of the World Health Organization, Energy Economics, Energy Policy, Journal of Development Studies, Water Resources Management, and World Development.

ABOUT THE MODERATOR:

Saideep Rathnam is the Chief Operating Officer of Mizuho India Japan Study Centre, bringing a wealth of 47 years of industry and academic experience to the Centre. An alum of IIM Bangalore, from Hindustan Aeronautics Ltd. to British Aerospace, UK he has spent over 2 decades in the aeronautics industry and over 18 years in the automotive sector in various capacities including president of manufacturing excellence at Anand Automotive Ltd. He is also a Certified Chartered Management Accountant [CMA], UK. He wears many hats and has chaired Anand University, helping companies in the fields of management of change and innovation. Recently, he drives the Visionary Leaders for Manufacturing (VLFM) program as a Senior Advisory Committee Member of CII.

1. **Brief overview of the topic by Dr. Mikio Ishiwatari.**

Dr. Mikio Ishiwatari while setting the context for the theme "Global warming is no myth! Urban water crisis and management strategies of India and Japan" started with a presentation on Managing Water Resources in Urban Areas in Japan. He initiated by discussing the issues faced by Urban Japan especially due to rapid migration from rural areas to Cities after the 1960s. These issues included Population and pollution increase, Lifestyle issues, resource management, industrial growth, etc. These issues led to polluted water resources and led population diseases. The famous disease among them was Minamata disease which spread due to the discharge of mercury.

These factors like the discharge of industrial and household waste with excessive use of groundwater led to not only draught situations in the 1960s but land subsidence which is a high-risk area for high tide and flooding. The solutions for these issues which were implemented are negligible leakage in water transport, Rain water harvesting, etc.

Rainwater harvesting is done on various levels i.e at home, at Tokyo domes i.e. gigantic playgrounds and big buildings where the rainwater is reused for maintenance purposes, fire fighting, etc. The water is treated by various techniques amongst which membrane treatment is commonly used in Japanese companies.

The issue of maintenance of groundwater is common in India as well as Japan. It is extensively used as it is cheap and clean. In Japan companies that do not use groundwater are provided with government subsidies. Companies are encouraged to recycle industrial water.

Infiltration techniques are used so that the risk of flooding is minimized and water gets harvested systematically. Jokaso treatment plant is a small household treatment plant almost a size of a small parking lot. It is important because it is as effective as a big treatment plant.

Futakotamagawa Rise is another solution to fight climate change. It is a roof on a height that is equipped with solar panels and various recycling materials. It does not only provide shelter

and decreases temperature but also produces electricity and keeps the structure clean and green. It is best combined with public parks.

Hiroshima urban poor - this was the identity of people who lived in slum areas that were affected by the atomic bomb. Later, housing projects and river development projects were combined, and people living in slum areas near the riverbank were rehabilitated in affordable houses. Due to such combined efforts, the river banks are now clean and beautiful.

2. Dr. Namrata Chindarkar's presentation on Urban Water Crisis and management strategies

Our second speaker in her presentation showed us statistics that tell us that within less than a decade per capita water availability will be decreased. There will be an insufficiency of potable water. We also are still facing with some genuine problems like 31% of the population still lacking the availability of pipeline water and some of the population which is having pipeline water supply is having supply for much less time.

Some of recent statistics show that in more than half of the Urban population, the household sewage discharge system is not proper, which is shocking data. The area under flood has increased from 171sq. Kms to more than 3000 km in recent 5 decades. It is a problem that needs serious consideration as NITI Aayog, the government think tank also indicated that precipitation in urban areas has increased drastically.

She pointed out the reasons for such problems across the country. It includes unplanned expansions of cities: such expansion occurs due to migration and an increase in urban agglomeration. Poor quality of infrastructure is another cause that cannot keep pace with the change in time and circumstances.

Policy incapacity issue: Even though water is a state subject, the municipal authorities have the capacity to disagree and not implement the state policies. The lack of coordination at various government levels is the root cause for poor management not only issues related to water management. In some cities, surprisingly, water management was or is not a considered issue. Climate change is also a recent topic of discussion. The Indian approach to such problems needs to be emphasized and looked upon seriously.

However, there are some positive changes that are brought about in addressing such problems. One such positive project is in the city of Nagpur, Maharashtra. This included public-private partnerships for the whole project across the city of Nagpur. Which included minimizing leakages, cutting down of illegal connections, 24×7 services, 100% metering, more revenue through tariffs, etc. This project became successful due to many reasons primarily of them being performance-based PPP. Heavy investment in the infrastructure itself caused a great difference. So also the coordination between local government, State Government, and Central Government could be seen in this project.

Integrated Urban Water Managing (IUWM)

In Delhi, Jal Board i.e. Delhi Water Board integrated approach is adopted through the Draft Policy of 2016. Simplification and transparent administration are aimed at better water management at various levels.

Data management is one of the key features of this system. Statistics are gathered and maintained at various stages. 11 districts work together and at the district level metering is done to find out non-revenue water and related issues. This helps the administration work with a targeted approach efficiently.

The solutions Dr. Chindarkar suggested are

i. Public participation: it includes spreading awareness of all the basic things like where is the source of water. How it is transported to their city/ town? What is the importance of a 24×7 water supply? What is its significance for future generations? How is the filtration system? What is the cost of filtration?

ii. Drainage and stormwater management: This is a commonly ignored area in many cities. Due to which city that receive less rainfall also gets flooded.

iii. Groundwater management: Unfortunately, there is no legal framework regulating the extraction of groundwater in agriculture as well as urban areas. There is a conflict between regulating it versus rights over the groundwater of the owner/ occupier.

iv. Lessons from Japan: In India, focus is on the consumer. The approach should be wider considering the whole ecosystem. We need to design the policies and plan according to the people's response to the services or try to aware people of the need for the betterment of response.

3. Q & A SESSION

Saideep San thanked the speakers for their engaging presentations which not only made the audience understand concepts but also gave relevant examples. He asked Dr. Chindarkar

Q. What are the other problems that are likely to be seen in urban water management? And what could be the possible solutions?

Dr. Namrata Chindarkar: There can be many other problems other than earlier discussed like Change in tariff can be a very sensitive issue sometimes. The conviction in your desired change is to be made aware of to the public at large.

However, there are common and inevitable solutions like rainwater harvesting, etc that cannot be ignored. Apart from that, behavioural interventions can play a huge role in tackling urban water issues. These can be as small as comparing the water bills to neighbours. Regulating it is not always the way out. Self-regulation is a much more efficient tool here. The integrated approach towards these issues is now mainstreamed through NITI Aayog.

Q: How can be the problem of opposing the change in tariff be addressed? Is there any example?

Dr. Chindarkar: The example of the Nagpur water project is best mentioned here. It was possible only due to the combined efforts of various governments. There was some opposition to the change in tariffs but due to the improvement in water quality and better services, opposition fade away.

Q: How is the Japanese response to the change in water tariff?

Ans: The response to the change in water tariff is not much different from that of India. However, Central Government plays an important role in advising the local/municipal governments regarding such issues. A strong government has the potential to handle such problems effectively.

Mr. Saideep was delighted to know that Japanese people are not different from Indians in this aspect.

Q: Climate change is causing an impact on the availability and quality of water. What is the Japanese response to the issue?

Ans: Japan is a much smaller country in comparison to India. Therefore, the climate impact is much more unified. Using scientific techniques we predict such impact and prepare accordingly.

Secondly, This must be the responsibility of every citizen and not only of some group of people irrespective of where he/ she is residing.

What are the other problems that are widely faced by implementing bodies?

Dr.Chindarkar: Many municipal corporations are not autonomous. Implementation of ambitious projects can be a serious issue here. Or even if they are financially sustainable, the people making policies and implementing it must be interested in understanding the best possible solutions. The administration must be equipped with expertise. As rightly pointed out by Dr. Mikio, use of scientific techniques is the best way forward. Unfortunately, academia and implementers are not in sync to approach problems together.

Dr.Mikio Ishiwatari: Bureaucracy in India and Japan is very strong. The practical approach taken by them can have a lasting impact.

4. **Questions from the audience:**

Chennai is a successful model in rainwater harvesting. Which are the other cities doing it well?

Dr. Namrata Chindarkar: We need to understand that rainwater harvesting is important but doing that at a household or small scale is not enough. Doing it on a large scale like Tokyo domes as explained by Dr.Mikio can help us. So, investment in such infrastructure is the need.

Is there any difference in tariff for companies in Japan that use groundwater or other sources of water for its usage?

Dr.Mikio Ishiwatari: Practically, there is no difference between the usage of different sources of water for companies as such. The policy is not regulated regarding groundwater rights.

Dr. Namrata Chindarkar: It is the same as India as the only minimum investment for extraction of groundwater through borewells etc. is the only cost necessary to spend because groundwater is linked with land rights.

Q**: How is the Japanese response to Disasters more specifically the tsunami?**

Ans: The primary response is that people are evacuated from risk areas, and shifted to safe areas with high altitudes, if possible, in advance. Secondly, concrete structures are developed to reduce the impact of tsunamis.

5. CONCLUSION

Saideep San thanked both panellists for their valuable time and resourceful insights on an important issue. Wished that they could collaborate later through MIJSC.