Address by Ambassador Kenji Hiramatsu
"Japan's Experience and Contributions to India in the Environmental Field"
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【Introduction】

Ladies and gentlemen, students, the faculty, and all the distinguished members of BHU.
I am honored to be here today, to have the chance to talk to you all, who represent one of the most prestigious institutions of India, about the very important topic of the environment and sustainable development. I am also happy to note that BHU has partnership with Kyoto University, my alma mater, especially in the field of environment.
I understand that the environment is deeply embedded in every scripture of Hinduism, and that for Indians, the environment is a primary asset, your life and livelihood, what should be under a good care, like in Japan.
I have come here today to share with you a story of Japan's past experiences regarding environmental problems with the hope that the lessons we learnt from our past suffering will be helpful here, so that together we can find a way to solve the environmental problems in India to avoid the type of suffering

Japan once experienced.

【Experience of Japan】

Let me start with the experiences of Japan.
In the late 1950s and early 1960s, Japan enjoyed a period of high economic growth. The population increased and the economy achieved rapid development. The growth rate grew by up to 8.8%. Heavy industries and chemical industries boomed rapidly. As a result, road congestion, garbage accumulation, and other problems closely related to our daily lives occurred. The environmental problems became very serious in Japan at the time.

The rivers got poisoned, and the local communities paid the price for this surge of prosperity. We were blindsided, because, at that time, we did not know the consequences of pollution.
Some of you may have heard of Minamata disease. Minamata disease is a toxic disease, which affects the nervous system and is caused by methylmercury. A chemical plant in Minamata city was using non-organic mercury as a catalyst, and it was released into the sea, contaminating the fish. The main symptom of this disease is sensory disturbance in the distal portions of the arms and legs, and can result in death. Fetal Minamata disease also occurred when pregnant women were exposed to the methylmercury.
We did not know then, but Minamata disease was only the tip of the iceberg. Japan was being crippled by pollution-related diseases.
By the way, to avoid mercury contamination-related diseases like Minamata disease, there is now a multilateral treaty aimed at regulating the entire mercury treatment process, from mercury extraction to waste disposal. This treaty came into force in August, 2017. It was named the Minamata Convention on Mercury, after Minamata City, which was heavily affected by mercury poisoning.

Not only the water, but also the air became severely polluted. Smoke from factories polluted the air in cities, and people living there suffered from serious diseases. Yokkaichi asthma was one of the most serious air pollution-caused diseases. The burning of petroleum and crude oil caused large quantities of sulfur oxide to be released into the air, and smog began to cover some quarters of the city, resulting in severe cases of chronic obstructive pulmonary disease. Cases of death from asthma attacks also occurred. For the first time in Japan, we saw the link between air pollution and illnesses.

It was time to take action. Everybody, including the government, companies, civil society, and individual citizens, worked together to fight air pollution and other form of environmental pollution.
Firstly, I will explain the role the government played in implementing countermeasures against air pollution.
As environmental problems arose due to the growth of industries, a law focusing on air pollution control was established ahead of time to protect the healthy lives of the people. The Basic Law for Air Pollution Control was enacted in 1968. The purposes of this law are to protect the health of citizens and to protect the living environment from air pollution by controlling emissions. This law regulates stationary sources, such as factories, and mobile sources, such as cars. The law declared that the prevention of pollution was of utmost importance for securing the health and cultural life of citizens.

Under the Air Pollution Control Law, the national government established the regulations, environmental quality standards, and emission standards. On the other hand, the local governments enforced them; they checked the registration statements of facilities, ordered reports on emissions, and performed on-site inspections. This law clarified the roles and strengthened the cooperation among the different levels of government.

Strict regulation was introduced by the governments as per the Air Pollution Control Law. As mentioned before, emission standards were set by the national government, and local governments were able to set stricter regulations to add to it. Local governments also have the power to issue improvement orders and temporary stop orders.
In addition, the law established the "polluter-pays" principle and the environmental standards, which serve as administrative targets.

Air pollution comes from various sources. As such, regulations were enacted according to each pollution source. As I said, the Air Pollution Control law was enacted in 1968 which covered both stationary and mobile resources, and Automobile NOx/PM Law was enacted in 1992 to reduce air pollutants that were on the rise in urban areas. This law was a powerful regulation that made it impossible to use cars that do not meet the criteria in certain areas, even cars that were already in use. Waste Management and Public Cleansing Act was enacted in 2001, in which open burning is generally not permitted in Japan. And Regulation of Emissions From Non-road Special Motor Vehicles was also put in place in 2006.

Let me turn to the role that companies played in improving the environment.
Japanese companies developed numerous state-of-the-art technologies to improve the environment. They optimized exhaust emission control systems. Especially particulate filters and oxidation catalysts progressed along with the strict standards set by the government. They reduced the amounts of particulate matter and NOx in exhaust emission. Companies also developed environmentally friendly cars, such as hybrid cars and fuel cell cars. They also enabled clean waste incineration facilities to be built, even in the center of urban areas. The facilities can burn dust at temperatures above 850 ° C to suppress the generation of dioxins. Such technology led to great improvement of the

atmospheric environment in Japan.

Civil societies, such as NGOs, also played a large role by promoting environmental activities.
The number of environmental NGOs in Japan has been drastically increasing since the 1970s. In the 1970s and 1980s, around 1,200 NGOs were established. The numbers had tripled since the 1960s. Since then, the environmental activities of NGOs have gained remarkable momentum throughout Japan. For example, “Citizens Environmental Foundation” is an NGO based in Kyoto. They organize the Eco School Project, which is an environmental learning program for school children. The group identifies environmental problems in schools and in communities, and with the help of the schools and community members, it organizes and implements activities that can help fix the problems.
Environmental NGOs play an important role in encouraging and enabling citizens to participate in environmental activities, and promoting the growing awareness of environmental issues. Japan proposed “Education for Sustainable Development (ESD)” for the first time at the World Summit on Sustainable Development in 2002 in cooperation with NGOs. This movement has greatly contributed to improving people's environmental awareness.

Last, but not least, individual citizens became increasingly aware of environmental problems and became more conscious in cleaning up the pollution in Japan.
A survey of environmental issues conducted by the cabinet office in 2012 revealed that 87% of Japanese people are consciously taking care to reduce garbage and to recycle. In Japan, everybody has to sort their garbage before throwing it out. All garbage has to be segregated into combustible and non-combustible garbage. In addition, recyclable items, that is, tins, glass and plastics, have to be segregated too. This is done by each family or individual at home before they throw away the trash, and it is done naturally as the norm by everyone. An environmental consumer survey

conducted in 2014 revealed that 75% of Japanese people are interested in environmental issues, and 62% are willing to buy environmentally conscious products. The awareness level of the Japanese people on environmental issues has improved by their own efforts and education at school and home. Also, the Japanese culture places importance on respect for the environment. The recognition of public habits and interests play an important role in enhancing environmental awareness. I believe this basic notion contributed greatly to the cleaning-up process.

Now, I would like to show you what the current Japanese environment is like. We took up the challenge to clean up our own mess. We had a mission, and here are the results.
Firstly, the concentrations of NOx and SOx, which are major air pollutants, have been continually decreasing in Japan. SOx was the cause of one of the most horrible pollution-related diseases that I mentioned earlier, Yokkaichi asthma, but this disease does not occur anymore.

Secondly, the concentrations of PM10 and PM2.5 have also been continually decreasing in Japan. PM is the most serious air pollutant in India, and it would be of interest to the health of all Indians to reduce its levels.

The concentration of PM in Tokyo is lower than that in other major Asian big cities. Various efforts have created an environment as a beautiful international city.

Now, we can see the blue sky and enjoy the clean air anywhere in Japan, even in urban areas, such as the center of Tokyo which has a population of more than 9.2 million or Osaka which has a population of more than 2.7 million. Children can enjoy exercising and playing sports safely outside. We have one of the cleanest air among metropolitan cities in the world. When you visit big cities in Japan, you will find roads and public places are very clean without litter or garbage in sight.

As for the water and sanitation sectors, we can drink water straight from the tap in Tokyo. They sell the bottled tap water. Efficient sewage treatment systems are found throughout Japan. This has created hygienic conditions for us to live in a clean and comfortable environment.
The air is cleaner.
The water is cleaner.
The city is cleaner.
So, the story of Japan has a happy ending after the struggle of so many years. At least we can claim that so far. We had limited information and experience to be learnt. Now, we want to share our experience and the lessons learnt with India.

【Contribution to India】

Japan is actively assisting India in carrying forward its Swachh Bharat (Clean India) Campaign. The process of our cooperation has already begun, and several big-ticket projects have been funded by Japan's ODA (Official Development Assistance).
An intelligent transport system has been installed in Ahmedabad. It disseminates real-time traffic information to drivers, which will help make the vehicle transportation system much more efficient. In addition, metro transport systems are being built in big cities in India, such as Delhi, Bengaluru and Kolkata. These projects are funded by the Japanese ODA and are contributing to improving the atmospheric environment in India.
However, we are keen to do far more than this, because we do not want any other nation or its people to suffer as we did.

Japan is also cooperating Ganga Action Plan Project (Varanasi) by providing ODA loan, which aims to improve the water quality in River Ganga by augmenting waste water treatment system capacity with construction and rehabilitation of the sewerage system and community toilets, thereby contributing to Clean

Ganga as well as Clean India and improving public health conditions for inhabitants and pilgrims.

The “Blue Sky Initiatives” are special projects organized by the Embassy of Japan in India for mitigating air pollution by ensuring that the best and the latest technologies are made available to Indians. I would like to show you some of these.

Exhaust from Coal thermal power plants is one of the causes of air pollution in India. Japanese companies have developed equipment that can denitrate, desulfurize, and filter particulate matter. Firstly, ‘Denitration’ facility decomposes harmful NO into N2 and H2O by catalytic action. Then ‘Desulfurization’ facility recovers harmful SO2 as harmless gypsum. Lastly, the ‘Filtering’ facility removes PM efficiently. This technology will help reduce the emission of air pollutants from thermal plants.

Japanese companies also have excellent technology to convert agricultural residues into biomass resources. This is considered to be an important solution for reducing the incineration of agricultural residues, which is currently regarded as one of the causes of air pollution especially in Delhi.

Japanese technologies can reduce not only the emission of air pollutants, such as PM, but they can also help counter global warming by reducing the amount of CO2 produced from energy generation. For example, Japanese companies have developed technology for harnessing the heat generated in the process of incinerating waste as energy, thus reducing the need for other energy-generation methods. This form of energy recovery is called “waste-to-energy”, and is attracting attention as an effective use of resources.
Although we have already gained many benefits from these technologies, I believe that in the future, there will be even more applications of Japanese technology that can help improve the environment.

【Conclusion】

Now, I would like to sum up my message.
Many people suffered from serious pollution-related diseases in the past in Japan. We spent a lot of time, effort, and resources to clean up the environment to solve these problems, and now, we do not want other countries to experience the same suffering we experienced. If actions had been taken earlier, the costs incurred by the solution could have been reduced substantially.

Japan would like to cooperate with Indian people to think together and act together about how we can improve the atmospheric environment in India. We are confident of the abilities and the commitment of Indian Government and people to tackle the environmental pollution, but Japan can be a great help for India. From the 1960s to 80s, a Japanese man named Tatsumaru Sugiyama came to Indian green field to plant eucalyptus trees in 3000km of Siwalik Range to prevent land slide and desertification. People called him the “Green Father”. As you can see from this example, Japan and India have long been cooperating in the environmental field, and I would like to continue this tradition in the future. We hope to work closely with India to improve the environment step by step, which I hope will help enable many people to live a healthier and more comfortable life in India.
Thank you.