The impact of natural disasters on water, sanitation and human settlements: prevention and response

Speech by Masaki Konishi
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Thank you, Mr. Chairman, for giving me this opportunity to address the issues of water, sanitation, and human settlements from the perspective of disaster risk management.

While clean water is indispensable to our survival, floods and droughts endanger our lives. Integrated water resources management provides us with a useful framework within which to address the issue of water in every area, including risk reduction.

The vulnerability of human settlements to natural disasters also calls for integration of risk reduction and preparedness into land use and urban planning, especially in those areas prone to natural catastrophes.

Mr. Chairman,

In Japan it is often said that "disasters strike when you least expect them." We have learned this lesson over time, as a result of losing so many lives to earthquakes, volcanic eruptions, and typhoons. Our response in Japan has been to introduce a culture of prevention into our long-term national policies, city planning, regional planning, regulations, and standards.
Elsewhere in the world, this becomes all the more important in the many countries where rapid urbanization is taking place and there are large concentrations of informal settlements in areas exposed to the risk of flooding and landslides. We must formulate urban master plans and land use plans to create cities more resilient to disasters. Building codes are necessary to make houses resistant to earthquakes, for instance.

Japan has recently set for itself the goal of reducing by half the damage caused by massive earthquakes over the next ten years, and it is strengthening policies to reinforce public facilities, such as schools and hospitals, as well as homes, against earthquakes.

On the other hand, in rural areas land use planning must take into account the fact that paddy fields and forests contribute greatly to preventing flash floods and inundations caused by torrential rains. In 2003, following up on the 3rd World Water Forum, Japan established an International Flood Network (IFNet) that enables a large number of countries to share information on flood control policies.

Secondly, in order to mitigate the serious impact that natural disasters have on water, sanitation and human settlements, it is important to develop disaster-resilient infrastructure, such as water supply systems, sewerage and power generation equipment, roads, railways, ports and airports, dams and dikes to protect coastal areas, and forests to prevent floods and desertification.

Thirdly, preventive measures are most effective when the local community is involved. In the Great Hanshin-Awaji Earthquake of 1995 that claimed more than 6,400 lives, about 98 percent of those buried alive or trapped were rescued by families, friends, neighbors or passers-by, while only 1.7 percent were saved by specialized rescue teams. This statistic shows us how important it is to create communities that know how to respond in the event of a disaster.
We have also come to realize the importance of notifying local inhabitants of safe evacuation methods and routes beforehand so that they can act quickly when a natural disaster occurs. To that end, Japanese municipal governments have been taking the lead in preparing and publishing local hazard maps, which contain information on danger zones where there is the risk of floods, storm surges, tsunamis, landslides, and volcanic eruptions, as well as on evacuation routes.

Fourthly, we can and must make nations and communities more resilient to natural disasters through people-centered early warning systems, enhanced public awareness, and better education. In Papua New Guinea, where approximately 2,600 people perished in the 1998 Aitape earthquake and tsunami, fatalities were particularly high on and near the coast. Immediately afterwards, Japanese experts produced easy-to-understand pamphlets on tsunamis that the national government distributed, successfully raising awareness among people living in coastal communities. These efforts were rewarded in 2000 when an earthquake measuring 8 on the Richter scale again struck the country. Although several thousand homes were destroyed, no lives were lost in the resulting tsunami.

The importance of getting early warnings out was again brought home to us by the recent Indian Ocean tsunami, and international efforts are now being made to establish a tsunami early warning system in the region. Last month, the Japanese Meteorological Agency, together with the Pacific Tsunami Warning Center in Hawaii, started to provide interim tsunami advisory information to the national authorities of Indian Ocean countries.

Fifthly and lastly, in the immediate aftermath of a disaster it is essential to provide drinking water and food, to restore sanitation facilities in order to prevent food poisoning or an epidemic, and to provide shelter to the many people who are displaced. Last November when a magnitude 6.8 earthquake shook the Niigata area in Japan, killing 46 people, destroying more than 100,000 houses, and severing water pipelines, a number of water tank trucks were mobilized to supply water to inhabitants, while water supply specialists from all over Japan rushed to the devastated area to restore the life
There was also an urgent need to provide shelter in order to protect inhabitants from the imminent risk of after-tremors, to give aid to the many aged people affected, and also to prepare for impending snowfalls.

Mr. Chairman,

To sum up, for the purpose of ensuring safe drinking water, basic sanitation and secure shelter, it is important to cope with natural disasters by implementing appropriate policies and measures in a seamless, coherent and integrated manner, corresponding to each specific phase, such as prevention, immediate response, and reconstruction and development. Only by doing so can we put an end to the vicious circle in which water, sanitation, and human settlements continue to suffer repeated damage as the result of natural disasters. This is indeed one of the most important preconditions for reducing poverty and achieving sustainable development.

Let me conclude my speech by expressing the sincere hope that, on the basis of the Hyogo Framework for Action adopted last January in Kobe at the World Conference on Disaster Reduction and based on the outcome of this CSD session, an increasing number of nations and communities will be able to acquire greater sustainability by making their water and sanitation systems and human settlements more resilient to natural disasters.

Thank you very much.