World Water Day 2014 Keynote Speech
by Akihiro Ohta, Minister of Land, Infrastructure, Transport and Tourism
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A Complimentary Address to the Opening of World Water Day

I am delighted to welcome Dr. David M. Malone, Rector of the United Nations University, Mr. Michel Jarraud, Chair of UN-Water, and all attending today's celebration of World Water Day organized by the United Nations. It is my great pleasure to welcome His Imperial Highness the Crown Prince of Japan to this ceremony, and I am deeply grateful for the efforts of the United Nations and other relevant parties to hold the ceremony here in Tokyo. Three years have passed since the Great East Japan Earthquake, which caused unprecedented damage to Japan. I would like to offer my sincere gratitude to people from various countries for their warm support for restoration and reconstruction in the interim.

I also acknowledge the great significance of the UN World Water Day; focusing on various aspects of relations between water and people. I believe the "Water and Energy Nexus," on which we are focusing this year, is a key theme to note as we proceed with policies on water.

Today's attendees tackle various water issues worldwide or are interested in water subjects. Personally, it is a great honor to have the opportunity to speak to such audience as a representative of Japanese water administrator.

Japanese Concept of Water: Mujo and Joju

(1) Water and "Mujo"

Japan lies at the eastern edge of the Monsoon Asia, one of the rainiest regions on Earth, with an annual rainfall of about 1,700 millimeters. This is about twice the global average, and Japan tends to be considered a country with rich water resources. However, since the country extends east-west and south-north, with a total length of about 3,000 km respectively and mountains beyond 2,000 m elevation run through the middle of the land, the rainfall varies according to regions and seasons, and the steep topography forces rainwater to instantly flow seawards.

This means water resources in Japan have distinctive characteristics: huge labor is required to stably ensure water resources nationwide while short-term heavy rainfall often causes flooding that holds significant energy.

As such, Japan is a country at high risk of and prone to natural disasters, such as water-related disasters and earthquakes. As Japanese have witnessed natural forces that are beyond human control, concepts of "Mujo" and "Joju" have emerged.

The term "Mujo" means everything is repeatedly emerges, ceases and ceaselessly changes. The transience of human lives, which are easily taken away by natural disasters, including typhoons and tsunamis, and the resulting upheaval imposed, correlate to events generating the "concept of Mujo." In the 13th century, Chomei Kamono wrote about disastrous circumstances involving many fatalities in earthquakes, flooding, and drought, which occurred successively as a disaster record in his essay "Hojoki." He grieved and lamented what had happened and opened his essay by comparing people and their dwellings to the flow of rivers and foam at the beginning. He says, "The flowing river never stops and yet the water never stays the same. Foam floats upon the pools, scattering, re-forming, and never lingering long."[1] He tried to say everything in the world is ceaselessly changing, "Mujo" and frail.

(2) Intersection between "Mujo" and "Joju"

Conversely, the term "Joju" illustrates a concept opposite to "Mujo," namely no change, constant existence, and something everlasting. Human beings tend to deny the concept of "Mujo" in considering their daily lives and the future and pursue "Joju," while desiring the latter is what it should always be.

Accordingly, we are located between Mujo and Joju, and living and swinging on the "infinite" points between both worlds. Japanese have found a "halfway house" between "Mujo" and "Joju" in harsh nature and learned how to compromise with water and create our water culture while accumulating experiences and technologies in our long history.

In the "Water and Energy Nexus," today's theme, Japanese have not sought "Joju" beyond "Mujo" but rather tried to realize "Joju" in "Mujo." In other words, we tried to find an intersection between "Mujo" and "Joju" to lead an affluent life.

Water Technologies of which Japan is Proud

Based on such water concept, Japanese people have long since striven to reduce repeated flooding and drought disasters by applying home-grown ideas, which has seen them acquire various types of techniques based on soothing rivers and compromising and coexisting with nature instead of trying to control rivers. For example, we "relocated the floodway of the

[1] *Hojoki: Visions of a Torn World* by Kamo-no Chomei. Translated by Yasuhiko Moriguchi and David Jenkins; illustrated by Michael Hofmann. Berkeley: Stone Bridge Press, 1996

Tone river to the east," paving the way for the present-day prosperity of Tokyo. Originally, the Tone River flew into Tokyo bay and repeatedly flooded. The early years of the Edo Period in the 1600s saw large-scale river construction commence: it took about 60 years to relocate the river eastwards to circumvent Tokyo and directly channel it into the Pacific. Japanese turned "misfortune" into "blessing" by diverting the massive energy of water away from Tokyo, and enabling the development of new rice fields, ship transportation, and urban land use.

Moreover, since the Meiji Restoration in 1868, when Japan started its modernization history, it developed water resource facilities, including dams, to satisfy new water demand while pursuing national development and powers. The hydroelectric power generated by the dam boosted energy demand during the post-war recovery years and remains an important source of clean energy. In recent years, Japan has tried to introduce and promote hydroelectric power using compact facilities that only require limited water and are available at many places, rather than solely depending on large-scale facilities.

In addition, coverage of the water-supply system improved by securing water resources for municipal water, whereupon living standards soared. Women were released from heavy water-related work and could join social activities as well as providing safe tap water to slash infant mortality. Nowadays in Japan, the water-supply system coverage exceeds 97% and the tap water is of sufficient quality for both non-Japanese and Japanese to drink directly nationwide. Water treated by the top-quality water cleaning system enjoys a high reputation as tasty water and is also sold in pet bottles.

This relationship with water can be explained in the context of various characteristics of Japanese water culture as follows:

- Festivals to beg for rain, flood/plague prevention and abundant harvest because according to the religion of the Japanese water god, god's spirit dwells in water,
- The rice paddy culture, a cornerstone of Japan, because rice production supporting the Japanese diet reflects typical water use,
- Landscape expressed in the term "scenic beauty" of clean and beautiful water,
- Food culture designated as a form of Intangible World Cultural Heritage, because Japan is blessed with water of good quality.

However, human behavior does not always elicit good results and the rapid socioeconomic growth after World War II considerably burdened the environment. In the early 1960s, the Sumida river, Tokyo's symbol, became a "death river" due to water pollution. People thus strove very hard to develop a sewage system and boost water quality throughout Japan, following which a regatta was regularly conducted on the Sumida River from 1978, and a fireworks display conducted every summer became a key national event.

These examples show how the proliferation of the sewage system played a key role in improving living standards, while recent years have seen efforts to achieve a low-carbon society, including the use of sewage sludge and heat as renewable energy sources.

Besides, we must also count the impacts of global climate change. Recently, disasters in Japan have become more localized, concentrated, and devastating than previously. These phenomena may intensify, and we must enhance our ability to prevent and mitigate disasters by predicting the upcoming future. Amid such circumstances, Japanese have tried to develop advanced technologies, e.g. observation and forecasting systems exploiting infocommunications technology and "upgrading dams" that strengthen flood-control functions without disturbing existing functions.

International Contribution Based on Experiences in Japan

Japanese have been building water technologies by facing up to and learning from nature as well as working on land. I hope these technologies, including processes, are profitable in global water-related efforts.

Japan has been providing support to solve problems related to water, sanitation, and disasters through international dialog, including the "United Nations Secretary-General's Advisory Board on Water and Sanitation" and "World Water Forum", international cooperation by optimally exploiting our experiences and achievements, and collaboration between the public and private sectors. We will continue to provide support with our water technologies and solve global water problems.

Expectations for the Ceremony

Finally, I expect the message transmitted from this ceremony to the world will significantly boost global water-related efforts.

Thank you for your kind attention.

(Translated by Ministry of Land, Infrastructure, Transport and Tourism, Japan)