

4-3. The Past, Present and Future of Japan's River Development

Japan's Once Abundant Rivers

There was a time when Japan's rivers were as abundant as the Mekong River. Fisher-folks on the Kawabe River in Kumamoto Prefecture, for example, recall that in the season when migrating fish returned to the river, the surface of the water appeared to turn black with the heads of vast numbers of fish swimming upstream¹. However, the ecology of Japanese rivers was dealt a devastating blow by the river pollution that accompanied Japan's rapid economic growth and industrialization beginning in the 1960s, and by the 3,000 or so dams constructed on rivers throughout the nation.

History and Changes in River Administration

Japan's River Act of 1896 was enacted for the purposes of water control, and the new River Act of 1964 was drawn up to regulate water control and use. The latter introduced uniform management of all small and medium rivers within each river system, placing Class A rivers² under national management and Class B rivers under the management of the local prefectures.

When the River Act was amended in 1997, it incorporated the standpoints of "environmental conservation" and "reflecting the views of local residents" due to the severity of environmental degradation and increasing awareness among residents of the need for river development that reflects the characteristics of the local region. However, citizen participation in river management was still very weak in Japan at the time.

Compared to other countries, Japan was slow to introduce an environmental assessment law, which was not enacted until 1997. Respect for the traditional lifestyles and special consideration for women and minorities are not required under this law. Since there is also no express provision for the protection of endangered species, it is not possible to use the law to regulate or restrict dam construction to prevent damage to habitats of rare animals. Furthermore, deliberations on river development plans, where most of the decisions are made, are gatherings of "knowledgeable persons," consisting mainly of university researchers designated by the Ministry of Land, Infrastructure, Transport and Tourism. This Ministry is also responsible for promoting dam construction. The current situation is thus that insufficient information is disclosed to the public and there are few forums where citizens are allowed to express their opinions.

Some Dams are Stopped, and Some are Not

While no large-scale hydropower stations have been constructed in the USA since around the year 2000, and the removal of existing dams for the sake of environmental restoration has already begun³, the construction of large-scale dams for water control and other purposes is still continuing in Japan. Resistance by local residents is strong, however, and construction projects are often dogged by heated debates. The plan to build Hosogo-uchi Dam, scheduled for construction on the Naka River in Kito Village, Tokushima Prefecture on Shikoku Island, was blocked for 30 years due to an opposition campaign by local residents, and finally cancelled in 2000. The construction of the planned Kawabe River Dam in Kumamoto Prefecture's Kuma River basin in Kyushu was also similarly cancelled due to strong local opposition.

At the same time, the construction of other dams is proceeding. One example is the Yamba Dam in Gunma Prefecture. This dam, planned for the Agatsuma Ravine, renowned for its scenic beauty, is a 116m-tall gravity-type dam for the purposes of water control and clean water supply with a construction budget of 410 billion yen (approximately USD 4.1 billion) (increased from an original 211 billion yen, approximately USD 2.1 billion). One of the campaign promises of the Democratic Party of Japan, which wrested power from the Liberal Democratic Party in the general election of 2009, was to review the Yamba Dam plan, and hopes were high that its construction would be cancelled, but this is not what eventually occurred.

The dam project has a long history, beginning over 50 years ago when the plan was first proposed. The local residents, exhausted after decades of strong opposition spanning three generations since the original proposal, finally collapsed and approved the plan. As well as being the habitat of the giant salamander, one of Japan's national protected species, there is also concern about the deterioration of water quality and other problems in the local area due to the dam reservoir. Naturally, the immense cost of the project is also an important issue.

River Environment Protection Plans Aiming to Restore Ecosystems

Despite the facts that Japan has now entered a period of population decline, and the greater part of current public works were planned during the era of rapid economic growth, these projects remain scheduled for implementation with no appropriate review. Japan's accumulated public debt has now surpassed the 1,000 trillion yen (approximately USD 10 trillion) mark⁴, but as we see with the Yamba Dam project, Japan is still attempting to proceed with this kind of enormously expensive development on the premise that the demand for water will continue to increase. The burden of costs for the construction and maintenance of these excessive facilities will fall on the shoulders of future generations.

On the other hand, public works that do not result in the building of new structures have also begun. A groundbreaking example of this is the removal of the Arase Dam, now being implemented in the lower reaches of the Kuma River basin in Kumamoto Prefecture⁵. This is the first attempt of its kind, not only in Japan, but in Asia as a whole. We are seeing a renewed appreciation for *satoyama*, and we are now looking forward to the promotion of river environment conservation plans that will help restore damaged ecosystems.

References

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1. Report by Ms. Shoko Tsuru (Vice Chairperson of the Kumamoto Nature Interpreter's Association), December 15, 2012.

2. A river designated by government decree as having an especially important river system from the viewpoint of national land conservation or the nation's economy.

3. A well-known example is that of the Elwha River in the Olympic National Park, Washington State, in northwest USA.

4. Reported in the Nihon Keizai Shinbun (Japan Economic Newspaper), August 10, 2013.

5. For further details, see BP4-2 *Removal of the Arase Dam: Japan's First Attempt to Dismantle a Hydroelectric Dam and Restore the Original River Environment*.