A brief history of the reclamation and desalination projects in Lake Nakaumi and the upcoming tasks needed for the wise use of the Honjo Area.

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In the summer of 2000 the Nakaumi reclamation project was abandoned, and at the end of 2002 the desalination project was also cancelled when it became clear that alternative water supplies existed for agriculture in this region. This was the end of a large and expensive (more than 85 billion yen) series of public works projects, which were left in a partially finished state. More than 40 years have passed since the project started in 1963.

The origins of the project can be traced the time before the World War II. In the 1930s, the O-hash River connecting Lake Shinji to Lake Nakaumi was dredged to assist flood control in the Hii River system. As a result, higher salinity waters moved upriver from L. Nakaumi into L. Shinji, and the water of L. Shinji became difficult to use for agriculture. Significant damage to agriculture from irrigating with saline water triggered discussion of the desalination of lake water. After defeat in WWII the national policy for the expansion of food production and industrial recovery led to a series of big land reclamation projects in various coastal lagoons. Desalination of lagoon waters adjacent to reclaimed areas was thought to be essential for irrigation of the new farm lands. In this context the national project for reclamation and desalination of L. Nakaumi was planned.

The full-scaled start of the Nakaumi project, however, was in 1970s, and it lagged behind other reclamation projects. At that time the deficiency of food in Japan had been alleviated and policy had changed to that of reducing rice cultivation acreage. Additionally severe deterioration of water quality had occurred in other reclamation projects such as Kojima Bay, Okayama Prefecture. Local fisherman feared similar environmental problems and launched a campaign to conserve the rich brackish-water fishery resources represented by Corbicula japonica. The prevailing mood in the nation favored a change in national policy that emphasized environments over economics. As tangible measures by the government, the Water Pollution Control Law was instituted in 1970 and the Law of Special Measures for Conservation of Lake Water Quality was passed in 1984. Lakes Nakaumi and Shinji were designated in the latter law in 1989.

The basic construction for the reclamation and desalination project was completed in 1981 and all that remained was to close the Nakaura Water Gate at the entrance of planned freshwater area and to pump water out of the Honjo area (1,700ha), which was one third of the total area planned for reclamation. However, it was the view of many official advisers that water quality in Lake Nakaumi would deteriorate significantly if the water gate was closed. Because of this, the movement opposing the project expanded beyond fishing interests to many of the general population in the region. In 1988 the Ministry, therefore, postponed a trial of desalination and delayed the reclamation of the
Honjo area. In 1992, reclamation was shelved for another 5 years and the government formed a study team to examine environmental deterioration and the final land use in this area. In the same year, the Research Center for Coastal Lagoon Environments (ReCCLE) was established by Shimane University. The researchers of the University initiated their own studies of lagoon environments based on multiple scientific disciplines and methods. ReCCLE researchers were also committed to informing the public and raising local awareness of conservation issues. Research results were released for the general readership on a number of occasions. On the other hand, the governmental study team extended the consultation period again, as it was unable to reach consensus.

In the continuing stalemate, the Japanese economy entered a period of recession after the bursting of the economic bubble and the government tried to stimulate the economy with various public projects. As the economy worsened, however, government financial resources declined to a critical level and there was no other choice than to stop several big projects including the reclamation of L. Nakaumi in the summer of 2000. Subsequently desalination was also canceled in the end of 2002.

After the long political and environmental conflict with the government, L. Nakaumi survived as a coastal lagoon. There has been significant damage to the lake system, however, and many problems remain. Large artificial structures wall off one third of the lake area and have modified the topography and circulation of the lake. In the immediate future we need to construct a plan for the restoration and conservation of the Honjo area. But in the future there is a need for an overall policy that controls the industrial development of brackish-water resources.

In any event, this conflict has made it very clear to both local residents and government officials that both lagoons, L. Shinji and L. Nakaumi, must be protected so they can supply us with plentiful resources and bolster the culture and industry of this region in the future. Though we still do not understand the many complicated phenomena that contribute to the environmental health of this lagoon system, the scientific study of these lakes must proceed carefully. Clear conclusions about sustainability and environmental quality cannot be reached on a rushed schedule and patience is needed to understand the lakes individuality and to show the way of harmonious coexistence between nature and humans.
Fig. 1 Outline of the Project
(Ministry of Agriculture, Forestry and Fisheries, 1989)
図1 中海干拓・淡水化事業概要
(1989農水省資料より)

Fig. 2 Around the Honjo Area
(Ministry of Agriculture, Forestry and Fisheries, 1989)
図2 本庄工区周辺図
(1989農水省資料より)

Fig. 3 Bird View of the Honjo Area and L. Nakaumi
図3 島根半島側より中海方面を望む