

## **Technology Award**

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### **Hamada River Comprehensive Development Project (Hybrid Dam Project Initiative with New Construction and Redevelopment)**

Shimane Prefecture, Kajima - Penta-Ocean – Imai Joint Venture for Construction of 2nd Hamada Dam, Kajima – Fukuda – Shoyo Joint Venture for Redevelopment of Hamada Dam

#### **Reason for the Award**

Hamada River is a second-class river located in the western portion of Shimane Prefecture. The objectives of the Hamada River Comprehensive Development Project were to redevelop the existing Hamada Dam for flood control, and to construct the second Hamada Dam to provide flood control capacity and maintain the normal water flow function that is insufficient with the redevelopment of the existing Hamada Dam alone. In the project plan, it was decided that overall it was optimal in terms of economics and social impact, etc., to develop it as an integral hybrid dam project by combining the two construction projects, redevelopment of Hamada Dam, and new construction of the second Hamada Dam. The existing Hamada Dam is a dedicated flood control dam, and the aim was to reliably ensure flood control, improve efficiency of control by eliminating the complex gate operations, etc., and extend the life of the plant. Also, the site for construction of the second Hamada Dam was selected to be about 2 km downstream of the existing Hamada Dam to revamp the main road and minimize social effects such as compensation for land, etc. Overall, by providing the ideal size of dam, flood control capacity that is about 4 times that before the commencement of the project has been effectively provided. The two construction projects have ensured safety against flooding during construction in the downstream area over a period of 11 years through measures taken in the design and construction planning, and the project was completed taking environmental and local social impacts into consideration. This project has resulted in safe and secure urban development with respect to flooding in the downstream area through a series of initiatives ranging from project planning, design, construction, and construction management taking into consideration the local natural conditions and the social environment. It has been highly evaluated for its contributions to the development of civil engineering technology and the development of the local community, and has been recognized as worthy of the Technology Award.