

Open-Type Sabo Dam In Fudo-tani River in Kohya, Izu, Wakayama Prefecture
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1. Outline of the Project

Fudo-tani river is located in the area of Mt. Kohya in Kohya, Izu, Wakayama Prefecture.

The sabo project was launched in the year 1995 and is intended to prevent disasters due to sediment transportation with due consideration to the landscape and ecosystem in the area. For this purpose, the open-type sabo dam was constructed and completed in the year 2001.



2. Dimensions of the Structures

Basic data regarding the project are as follows:

Catchment area: 3.48 km

Dam Length: 69.0 m

Dam Height: 14.5 m

Fish Ladder: 16.0 m

Protection Wall: 43.17 m

Designed Discharge: 97.14 m/sec



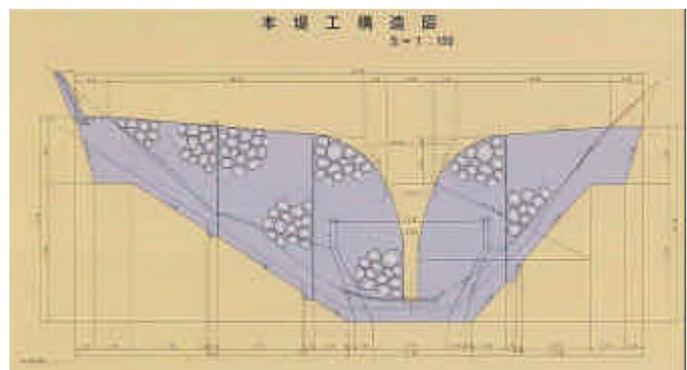
The dam front

3. Environmental Setting of the Project Area

The project site is located in the valley in the Kohya-Ryujin National Park and close to the Gokuraku-Bashi station of the Kohya line of Nankai Railways which provides tourists and holidaymakers as well as the local people access to the UNESCO-designated cultural heritage, the Mt. Kohya. The project was therefore implemented and designed putting the highest priority on environmental preservation and environmental consciousness.

4. Design of the Dam

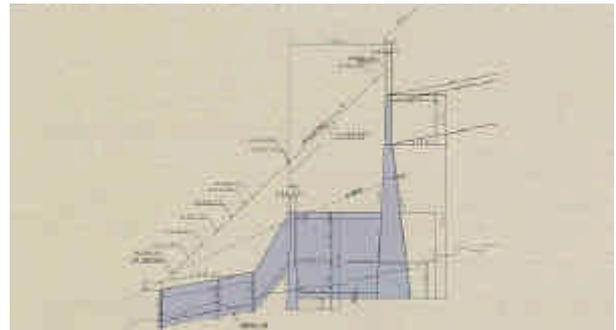
The open-type sabo dam is equipped with, at the center part, slits which allow debris to flow through during normal time and to block the debris from flowing when there are floods. Taking into account the specific feature of the location, the figure of the dam is designed to be environment-conscious.



The structure figure at the dam



The plane



The side

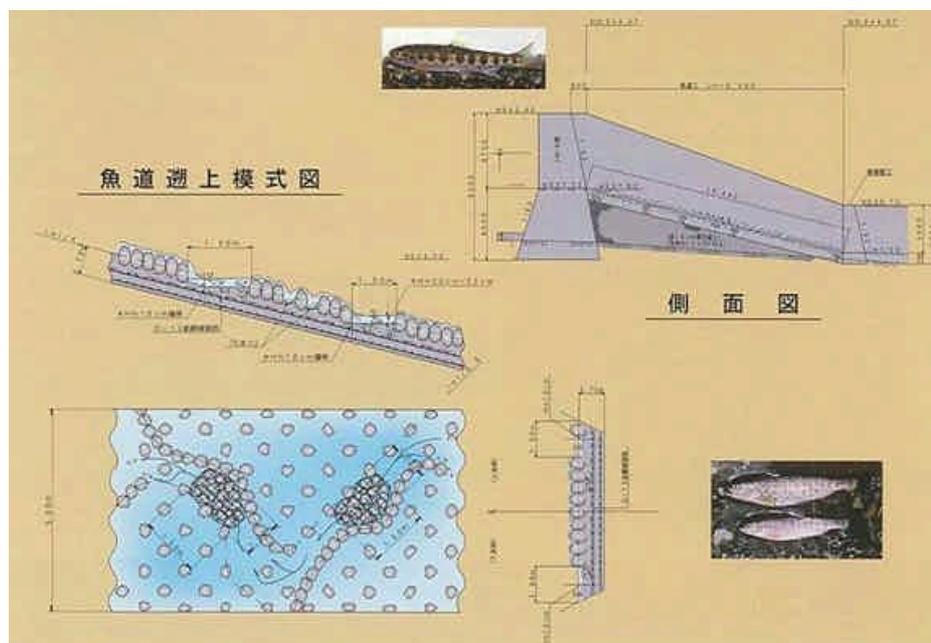
5. Consideration to the Environment

As a result of monitoring practices on discharge, it was brought out that there were gaps in discharge between rainy days and dry days. The dam is, therefore, equipped with a zigzag-type fish ladder which allows small anadromous fishes such as amenou to go upstream.

Large boulders and cobblestones are put on the torrent bed in an attempt to create an atmosphere of natural environment.



The fish ladder



The figure of the fish ladder

6. Addendum

Kii mountain region in which Mt. Kohya is located, is designated as a World Cultural Heritage of UNESCO. As a result of this designation, the number of tourists and holidaymakers is expected to grow. This sabo dam will attract people who are concerned about risk management in tourism spots and will consider what is done at Mt. Kohya a good example.

Holy Places and Pilgrimage Routes in the Kii Mountain Region, A UNESCO-designated World Cultural Heritage

The Kii mountain region covers the boarder areas in Wakayama, Mie and Nara Prefectures and is quite unique and rich in natural environment. The region is, therefore, regarded as a divine area.

There are three holy places such as Yoshino-Ohmine, Three mountains in Kumano and Kohya mountain . Each of these holy places attracts a lot of people from various corners in Japan. The region has been playing a key role in promoting religious and cultural movements in Japan.



The slit sabo dam and protection wall