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Local capacity building

Yasaka Dam, Japan

Infrastructure upgrades and integrated planning at Yasaka Dam, Japan, are facilitating sustainable expansion of a multi-function scheme to support new enterprises and community activities. Growth is underpinned by strong community engagement and acceptance.

Overview

Yasaka Dam is located 14 km above the estuary of the Oze River, on the border of the Hiroshima and Yamaguchi Prefectures, Japan. Yasaka is a 120m high gravity type concrete dam and was built to provide multiple benefits, including the provision of drinking water, downstream flow regulation, flood mitigation and hydropower. Construction commenced in 1982 and the dam was completed in 1990.

In contrast to many hydro dams, Yasaka is in close proximity to a relatively large population base, including Iwakuni (pop 110,000), Ootake (32,000), Waki (7000) and Miwa (5000). The dam environment is essentially suburban, being about one hour drive from central Hiroshima (population of 1,110,000).

Scheme Specifications

Dam Name

Scheme operator

Ministry of Land, Infrastructure and Transport

Size of scheme (MW)

7

Country

Japan

Catchment area

301.0km²

River

Oze

Effective reservoir capacity

112 x 10⁶m³

Construction years

1982-90

Reservoir size3.6km²**External Recognition**

Nil

Details

In 1998, the Japanese Ministry of Land, Infrastructure and Transport undertook a program entitled “Regional Activation Programme around Yasaka Dam (RAP)”, an infrastructure focused program intended to herald the expansion of activities at Yasaka Dam.

Among the opportunities for local residents were ‘Soft Programs for Water Environment Conservation’, which encouraged residents with an interest in water conservation to become involved in environmental programs. A number of funded water conservation projects were established, and local residents had the opportunity to gain skills and experience in this field.

Other aspectsMultiple Use Benefits

The Yasaka Dam was constructed initially to provide flood mitigation, drinking water storage and hydropower opportunities. The storage now also supports a wide range of community events and activities, and has undergone significant development, including shopping malls and increased agricultural and industrial enterprise.

Community Engagement and Acceptance

As the Yasaka Dam project was constructed in close proximity to a very large population base, extensive community and industry consultation was a feature of the project, including development of ‘soft programs’ aimed at stimulating community involvement in aspect of the project and ancillary developments.

Further information

Source: Hydropower Good Practices Workshop, Annex VIII - Examples for Good Practice Report, Villach, Austria, October 2005. International Energy Agency.

<http://www.cgr.mlit.go.jp/yasaka/>

<http://ww2.enjoy.ne.jp/%7Eotake-city/index.html>

<http://japan.park.org/Japan/Public/Hiroshima/htmleng/ecity11.htm>

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Hiroyuki Yamaguchi, “Outline of Yasaka Dam Project”, Mechanization of Construction (October 1982).