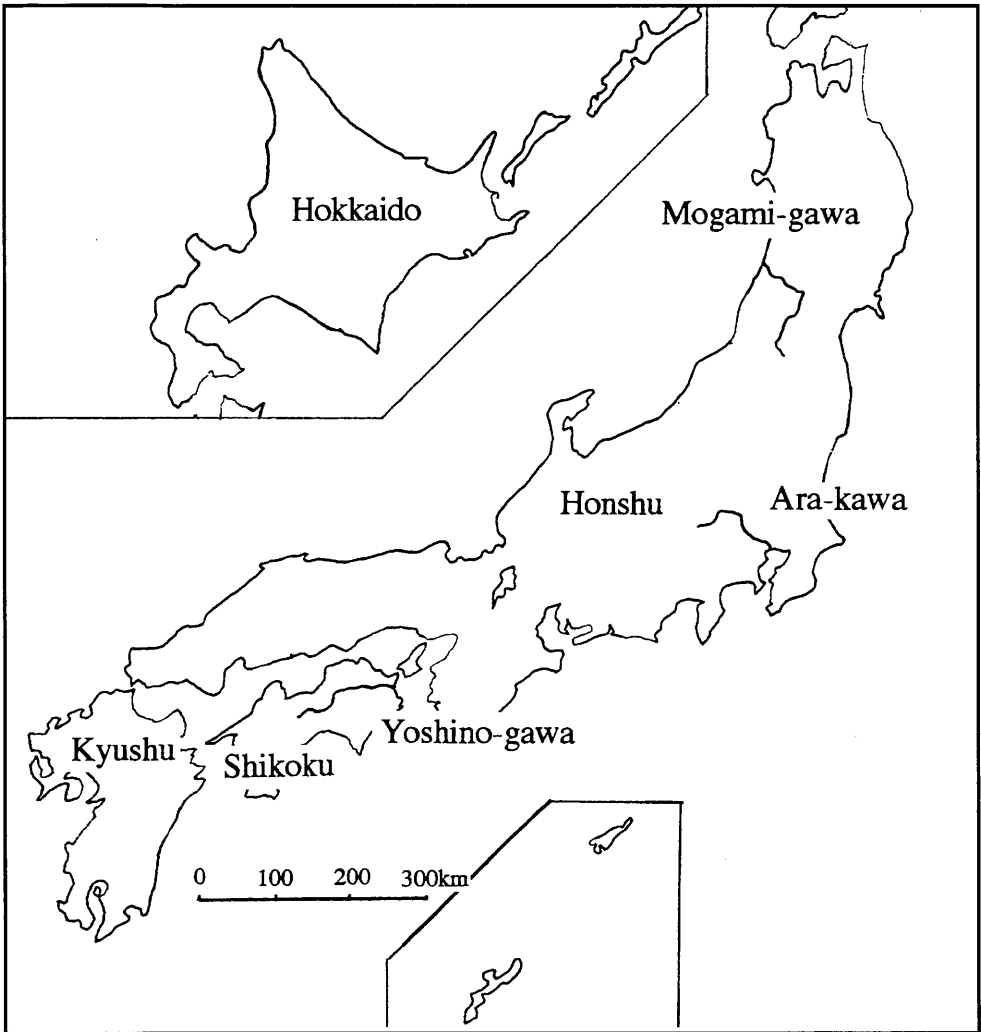


# Japan

**Japan-1: Yoshino-gawa**

**Japan-2: Ara-kawa**

**Japan-3: Mogami-gawa**



## Introduction

The Japanese Archipelago situated in far east Asia consists of four main islands (Kyushu, Shikoku, Honshu and Hokkaido) and more than 3 000 small islands with a total area of 377 727 km<sup>2</sup>. The main islands extend over 2 000 km between the latitudes of 31 - 45°N but the width is only less than 300 km. They have 3 000 m class high mountains in the central spines and narrow plains inland and near the coasts. Rivers are short, steep and productive in sedimentation. There are four distinct seasons in Japan. In winter, heavy snowfalls are experienced in Hokkaido and the Japan Sea side of Honshu. In early summer, stagnated fronts bring continuous rainfalls called "Baiu" everywhere except Hokkaido. In late summer to early autumn, typhoons are quite frequent. The mean annual precipitation is 1 800 mm varying from less than 1 000 mm in Hokkaido to over 3 000 mm in the Pacific Ocean side of Kyushu, Shikoku and Kii Peninsula of Honshu. The Japan Sea side is the heavy snowfall area. The population has been 124 650 000 in 1995. The overall population density is 330 person/km<sup>2</sup> but since 66.8% of land is covered by mountain forest, the urban concentration is extremely high.

The three rivers catalogued in this volume are the Yoshino, the Ara and the Mogami. They are the representative rivers of the salient characteristics indicated above, that is, flood and drought, urban megalopolis and agricultural area, respectively. The Yoshino River is located in Shikoku Island in between the area of heavy rainfall and frequent typhoons and the area of relatively little rainfall. The basin often experiences floods as well as water shortages. A major reservoir and a number of small irrigation ponds have been constructed in the basin. The Ara River is the representative river flowing through the highly urbanised areas of Saitama Prefecture and Metropolitan Tokyo. It has a long history of fighting floods and providing for agricultural as well as urban water needs and popular river front amenities. The Mogami River flows through one of the richest rice paddy areas in Japan having heavy snowfall in winter which provides relatively stable discharges in late spring when rice is planted.

## Acknowledgements

A working group was established for the preparation of the catalogues, where a number of institutes and individuals collaborated. The working group consisted of:

K. Takeuchi (Chair) and W. Shintani, Yamanashi University,  
 Y. Takahasi, Shibaura Institute of Technology,  
 F. Yoshino and A. Nakamura, Japan Foundation of River and Basin Integrated Communications (FRICS),  
 A. Terakawa and T. Suzuki, Public Works Research Institute (PWRI), Ministry of Construction,  
 T. Kinoshita, Suimon Kankyo (Hydrology Environment),  
 K. Musiake, Institute of Industrial Sciences, University of Tokyo,  
 R. Nakamura, Faculty of Agriculture, University of Tokyo, and  
 J. Matsumoto, Faculty of Science, University of Tokyo.

The organisations that have contribute include:

Yoshino River Construction Office, Shikoku Region Construction Bureau, Ministry of Construction,  
 Upper Ara River Construction Office, Kanto Region Construction Bureau, Ministry of Construction,  
 Lower Ara River Construction Office, Kanto Region Construction Bureau, Ministry of Construction,  
 Yamagata Construction Office, Tohoku Region Construction Bureau, Ministry of Construction,  
 Public Works Research Institute (PWRI), Ministry of Construction, and  
 Japan Foundation of River and Basin Integrated Communications (FRICS).

Financial support was provided by:

Ministry of Education, Science, Sports and Culture, and  
 Infrastructure Development Institute of Japan