



## CASE STUDY

# Japan: Tsurumi River Basin Water Master Plan

## Summary

The Tsurumi River Basin undergoes rapid urbanization and population growth that generated concerns in advancement of flood control for the region. A multi-stakeholder committee was established to develop the "Tsurumi River Basin Water Master Plan" which undertake the efforts of simultaneously advancing river development and flood control measures in the basin with the aim to solve water problems basin wide. This participatory process reflected wider options from all basin-concerned parties.

## Background

The Tsurumi River Basin, located in the suburbs of Tokyo, extends over an area of 235 km<sup>2</sup> and a river length of 42.5 km. The Tsurumi River Basin is regarded as one of the most important and representative river basins in Japan. The basin was largely developed by the rapid urbanization since the 1960s. The transition of the urban area increased from 10% in 1958 to over 84% in late 2000. As of January 2004, the total population in the basin reached about 1.9 million with a population density of 8,000 people per square kilometre. The process of the rapid urbanization in the basin generated a great concern to keep advancement of flood control for the region. In other words, the traditional concept of river development became inadequate for securing the safety-level against flood. To formulate adequate solutions, the basin management authority called for the establishment of a committee consisting of experts from the academia, basin municipalities and river administrations. The committee undertook the efforts of simultaneously advancing river development and flood control measures in the basin with the aim to solve water problems basin-wide. In this effort, measures such as those against urban rain runoff increase were addressed in the basin from the stages of the city planning and development by the basin municipalities. This initiative set a precedent for integrated flood control measures in Japan. Given those issues, it was essential to strengthen the perspectives of environmental protection and participatory approach within the integrated flood control plan, while continuing to promote its natureoriented and multifunctional aspects as well as enhancing the participation of wide ranges of concerned parties.

## Actions taken

As the Tsurumi River Basin Water Master Plan was intended to be carried out through cooperation and collaboration among citizens in the basin, civic groups, enterprises, administrative agencies, opinions from various concerned parties within the basin were incorporated during its formulation process. It was after 30 meetings with various participants in 6 years that the plan was completed.

- Tsurumi River Basin Preparatory Committee:

This preparatory committee consisted of academic experts and other members. It was held seven times in total, through which the "Proposal for the formulation of Tsurumi River Basin Water Master Plan" was created.

- Tsurumi River Basin Water Committee:

The Tsurumi River Basin Water Committee consisted of members from various fields such as academic experts, citizens and administrators. It provided advice on the content and implementation progress regarding individual plans (action plans) that promoted the Tsurumi River Basin Water Master Plan.

- Tsurumi River Basin Water Master Plan Administrative Conference:

The Administrative Conference was held nine times in order to carry out planning of the Tsurumi River Basin Water Master Plan. During the conference planning operations were pursued and readdressed in consideration of the advice from the Basin Water Committee.

- Tsurumi River Basin Water Commission:

In this commission, opinions from citizens and administrative agencies were exchanged consistently, and the plans for river development based on the Tsurumi River Basin Water Master Plan and relevant laws were dealt with. The commission was held three times, and the outcome was reported to the administrative conference.

- Tsurumi River Basin Water Council:

Tsurumi River Basin Water Council evolved from the reorganization of the Tsurumi River Integrated Flood Control Measures Committee. It consists of members from the government, the prefectures and the cities. The "Tsurumi River Basin Water Master Plan" was formulated by this council. The plan was that the council would carry out necessary reconciliations among administrations on the management of implementation progress, revision of the plans and new problems/issues/measures regarding the basin. The participatory processes above, which reflected the wider opinions from all basin-concerned parties, contributed to the consensus formulation of the Tsurumi River Basin Water Master Plan, which was the first water master plan in Japan to give a far-reaching impact at home and abroad.

## **Outcomes**

In order to steadily advance individual action plans of the Tsurumi River Basin Water Master Plan, each main body in the basin was required to effectively implement its designated measures, manage the progress and process of implementation and report the outcomes when appropriate, while sharing data and increasing the awareness of the basin community. The framework of implementation is based on management cycle considering planning, implementation, monitoring and revising are taken. In order to keep the plans suitability and update, revisions in consideration of the changing social conditions was made whenever necessary not only on the individual action plans but also on the Tsurumi River Basin Water Master Plan.

## Lessons Learned

The agreement on the water master plan was reached through cooperation and discussion among various administrative sectors (river, sewage, water-supply, roads, parks, cities, environment, agriculture, construction, disaster prevention and education), citizens, enterprises and NGOs.

To implement the Tsurumi River Basin Water Master Plan, involved large number of concerned parties as participants, many years were needed. Short term taregts to conduct review and progress heps to implement action plans steadily

Monitoring by measurable indicators and the reporting of its results were essential tools for concerned parties to share the effects of the implemented measures.

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Japan: Tsurumi River Basin Water Master Plan

## Related IWRM Tools

Multi-Stakeholder Partnerships, Recycle and Reuse, Water Markets

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