

CAPACITY BUILDING IN ASIA
"EARTH OBSERVATIONS IN THE SERVICE OF WATER MANAGEMENT"

Activities of Japan



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The University of Tokyo
September 26, 2006
Rama Gardens Hotel, Bangkok,
Thailand

The 2nd Asian Water Cycle Symposium

9 – 10 January 9-10 2007

The University of Tokyo, Tokyo

Objectives:

The symposium aims to launch the Asian Water Cycle Initiative Demonstration Projects through discussions of the ITT report.

GEOSS Symposium on Integrated Observation for Sustainable Development in the Asia-Pacific Region (GEOSS AP Symposium)

January 11-12, 2007

Tokyo

Objectives:

The symposium aims to:

1. present GEO activities based on GEOSS 10-Year Implementation Plan to Governments, Experts, Scientists, Public and Press in Asian-Oceanic countries widely
2. summarize the current situation of in-situ networks, satellite capability, model predictability, and data integration, and discuss future observing plans for filling the observational gaps, avoiding overlaps and contributing to the socio-economic benefits: *Climate Change and Water cycle, Ecosystems and Biodiversities, Disaster*
3. converge existing observational networks in Asian-Oceanic countries to the GEOSS

The “Initiative for Japan’s ODA on Water”, which was announced on the occasion of the Third World Water Forum and Ministerial Conference held in March 2003, presented Japan’s comprehensive approach in this sector. With a view to implementing Japan’s assistance on water and sanitation more effectively, the Government of Japan announces the “Water and Sanitation Broad Partnership Initiative (WASABI)”.

The Forth World Water Forum, March 2006
Government of Japan

Japan’s “Water and Sanitation Broad Partnership Initiative (WASABI)”

Japan’s Official Development Assistance Charter

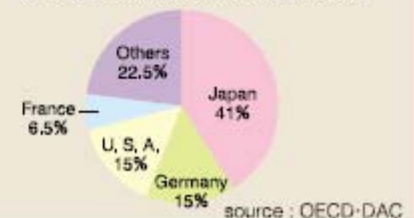
Japan’s Medium-term Policy on Official Development Assistance

UN Millennium Development Goals (Goal 7 : Ensure environmental sustainability)

- Halve the proportion of the people without sustainable access to safe drinking water
- Halve the proportion of the people without sustainable access to basic sanitation

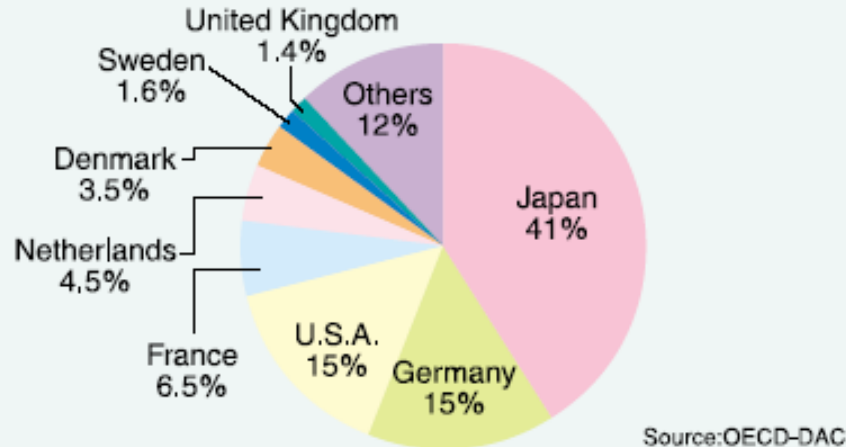
Japan is the world’s largest donor in the water and sanitation sector

ODA on Water and Sanitation, 2000-04



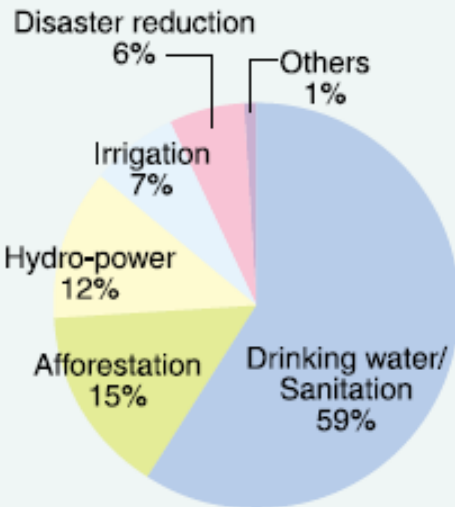
Japan is the world largest donor in the water and sanitation sector.

ODA of DAC Countries on Water and Sanitation, 2000-04



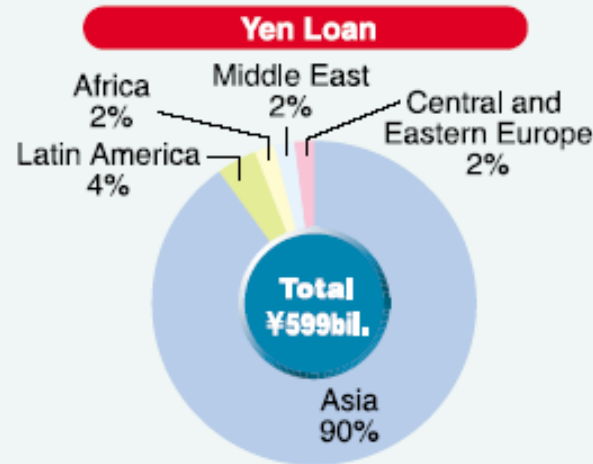
Effect of Japan's ODA (Example of Yen Loan)

Japan's Yen Loan projects for the improvement of water supply systems implemented since the 1980s are expected to have provided accesses to safe drinking water to over 100 million people around the world.

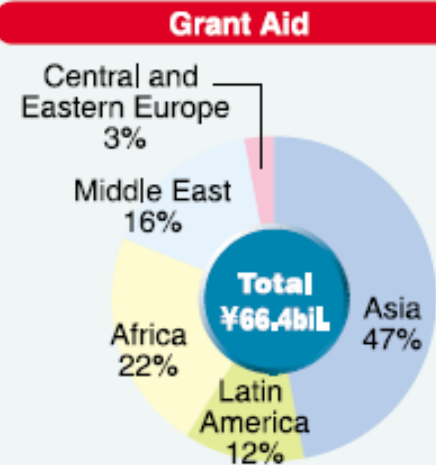


Breakdown by Purpose

Japan's ODA, FY2002-04



Breakdown by Scheme and Region



Source: ODA White Paper

Water and Sanitation Broad Partnership Initiative

(Announced at the 4th World Water Forum and Ministerial Conference in Mexico in March, 2006.)

Japan's Basic Position

- Water is essential for life and is an extremely important element in achieving the MDGs.
- In the current situation, many people in developing countries don't have access to safe drinking water or basic sanitation.
- Japan has a comparative advantage on water and sanitation, and has implemented \$4.6 billion of ODA in the past five years.

Basic Policies

Establish broad partnerships:

Japan will establish broad partnerships with international organizations, other donor countries, Japan's local governments, NGOs in Japan and abroad, the private sector, and education and research institutions, etc.

Clarify effective approaches:

1. Pursuing the sustainability of water use
2. Emphasizing the "human security" perspective
3. Emphasizing capacity development
4. Pursuing synergy through cross-sectoral measures
5. Considering local conditions and appropriate technology

Comprehensive Measures

Promotion of integrated water resources management (IWRM)



Provision of safe drinking water and sanitation



Support regarding water use for food production and other purposes



Water pollution prevention and ecosystem conservation



Mitigation of damage from water-related disasters



As the world's largest donor in the water and sanitation sector, Japan will provide the following comprehensive support by utilizing its experience, expertise and technology.

Concrete Measures① Promotion of integrated water resources management (IWRM)

- ① Japan will promote the implementation of IWRM to ensure sustainable water use. To this end, Japan will support the capacity development of developing countries based on the methods such as comprehensive flood control measures, integrated lake basin management (ILBM), and groundwater regulation and management, making use of its experience, expertise, and technology. Furthermore, grasping the medium- and long-term trends of water by monitoring, forecasting, and evaluating the circulation of surface and ground water on a global scale, including the effects of climate change, has an important significance from the perspective of proper water resources management. To this end, Japan will support the establishment of the systems such as the Global Earth Observation System of Systems (GEOSS).
- ② Focusing on regions in which aggravation of structural water shortage is predicted, Japan will support the structural development towards the international cooperation on the management of trans-boundary watercourses.

Integrating the Multiple Aspects of “Water” IWRM

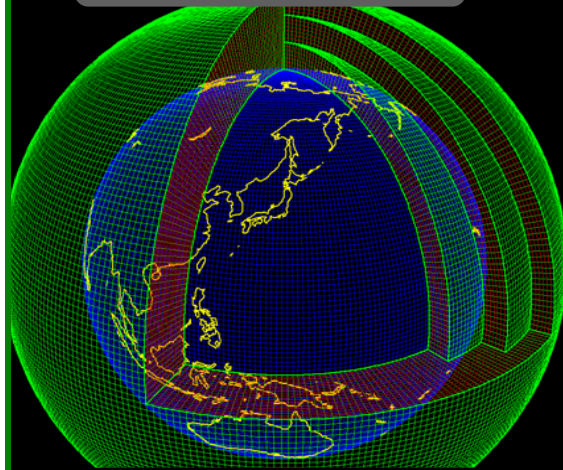
Integrated water resources management aims for the three types of “integration” seen below.

- ① To consider in an integrated manne every form and stage of water cycle in nature (water resources and land resources, water volume and water quality, surface water and ground water, etc.).
- ② To consider the various sectors related to water that have

been conventionally managed separately (rivers and flood control, water and sewage systems, agricultural water, industrial water, water for maintaining the ecosystem, etc.). To aim for a participatory approach involving concerned parties of all levels such as the central government, local governments, private sectors, non-governmental organizations (NGOs), and residents.

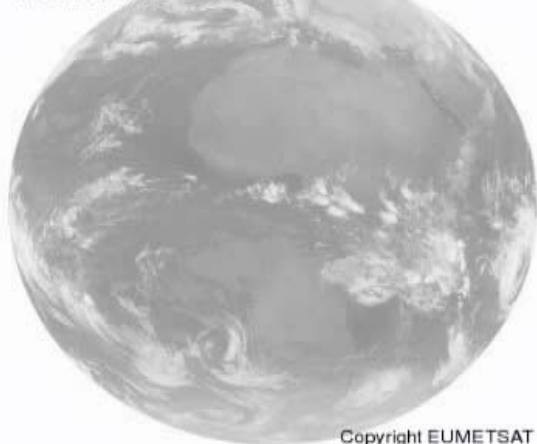


Global Scale

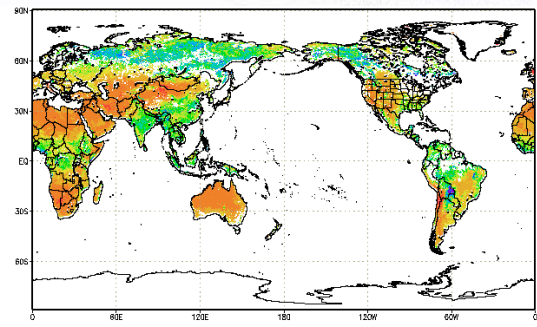


General Circulation Model

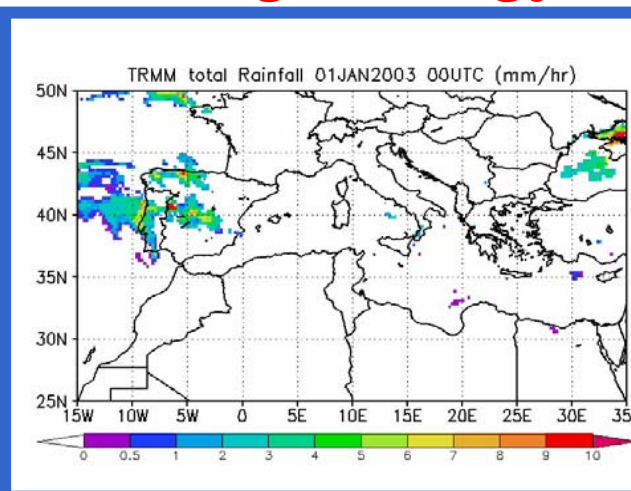
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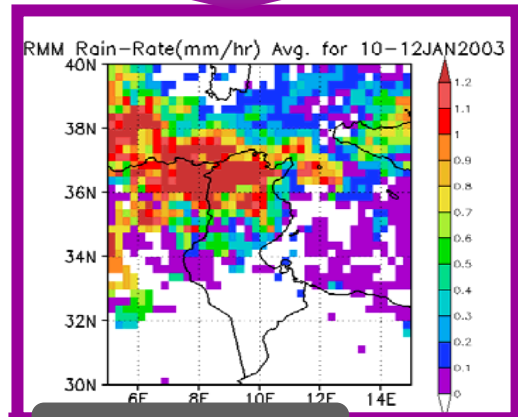
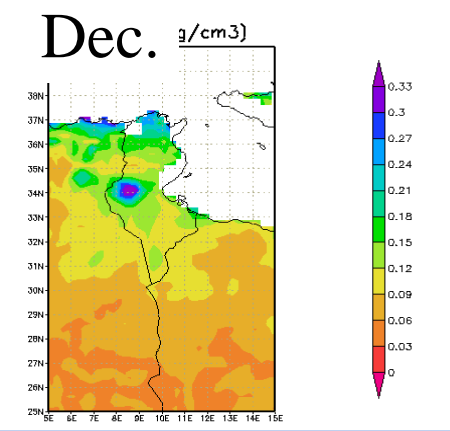
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Modeling Strategy



Regional Scale



**Physically-based Down-Scaling
Distributed Hydrological Model
Optimization Schemes for IWRM**

**I
W
R
M**

- Flood Control
- Draught/Water Use
- Sedimentation Assessment
- Ecosystem Conservation

Basin Scale

