

Outline of Basic Plan on Water Cycle

General

- 1 Our Relations with the Water Cycle
- 2 Definition, Period and Structure of the Basic Plan on Water Cycle

Part 1 Basic Policy of Water Cycle Measures

- 1 Comprehensive and Integrated River Basin Management
- 2 Approach to Maintain/Restore Sound Water Cycles
- 3 Adequate Use and Benefits of Water
- 4 Maintenance of Sound Water Cycles in Water Use
- 5 Actions Concerning Water Cycle under International Cooperation

Part 2 Comprehensive and Systematic Measures on Water Cycles Implemented by the Government

- 1 River Basin Cooperation
 - Framework for Comprehensive and Integrated River Basin Management -
 - (1) River basin area
 - (2) Concepts of comprehensive and integrated river basin management
 - (3) River basin water cycle council and river basin water cycle plan
 - (4) Contents of River basin water cycle plan
 - (5) Development process and assessment of the river basin water cycle plan
 - (6) Measures for developing and promoting the river basin water cycle plan
- 2 Maintenance and improvement of Water Retention/Recharge Function
 - (1) Forests (2) Rivers (3) Farmland (4) Cities
- 3 Adequate and Effective Water Use
 - (1) Stable water supply and drainage
 - (2) Sustainable maintenance and use of groundwater
 - (3) Strategic maintenance, management and renewal of water infrastructure

- (4) Efficient and effective water use
- (5) Water environment
- (6) Water environment and ecosystems
- (7) Waterfront spaces
- (8) Water culture
- (9) Water environment and global warming
- 4 Education of Sound Water Cycles
 - (1) Promotion of water cycle education
 - (2) Raising awareness of water cycles
- 5 Voluntary Activities by Private Entities
- 6 Research for Developing and Implementing Water Cycle Measures
 - (1) Research on the current situation of water cycles in river basins
 - (2) Research on the effect of climate change on water cycles and adaptability
- 7 Promotion of Science and Technology
- 8 International Partnerships and Cooperation
 - (1) International partnerships
 - (2) International cooperation
 - (3) Overseas expansion of water business
- 9 Human Resource Development in Water Cycles
 - (1) Human resource development and international personnel exchange under industry-academic- government collaboration

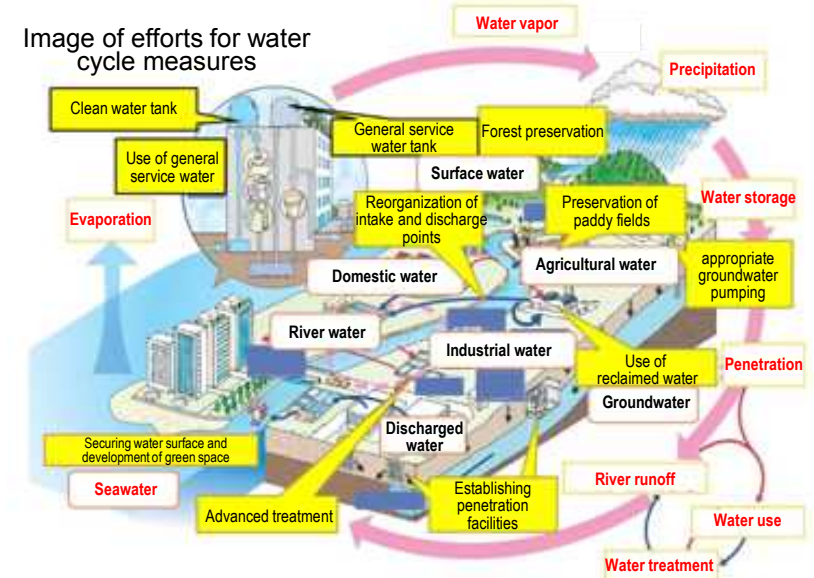
Part 3 Requirements for the Comprehensive and Systematic Promotion of Measures on Water Cycles

- 1 Effective Measures on Water Cycles
- 2 Responsibilities, Collaboration and Cooperation of Stakeholders
- 3 Announcement of Measures on Water Cycles

Key Points of Basic Plan on Water Cycle

1. New water cycle plan of river basin

- The river basin water cycle council will be cooperatively established by local governments, the local branch offices of the government agencies, organizations, business operators and local residents.
- The river basin water cycle council will draw up a comprehensive river basin water cycle plan horizontally across each field.
- The stakeholders will mutually cooperate in a flexible manner to implement measures concerning forests, rivers, farmland, sewage systems and the environment according to the basic concept of the river basin water cycle plan.



2. Groundwater management by all stakeholders

- The groundwater council will be cooperatively established by local governments, the local branch offices of the government agencies, groundwater users and other related parties.
- The main organizations consisting of the groundwater council cooperatively determine the basic policy for understanding of the actual condition, conservation, utilization, recharge, dissemination and awareness raising of groundwater and then implement the policy in a step-by-step manner according to the actual condition in each region.
- The central government and prefectures cooperate with each other to perform observations, investigations, data maintenance and analysis.



Basic Plan on Water Cycle: Main Measures, Example 1

Smoothly response to severe drought

[Issues]

After a severe drought arises, measures that can be taken are limited. Therefore, there is a danger of serious impact on the economy and daily life.

New efforts (Plan)

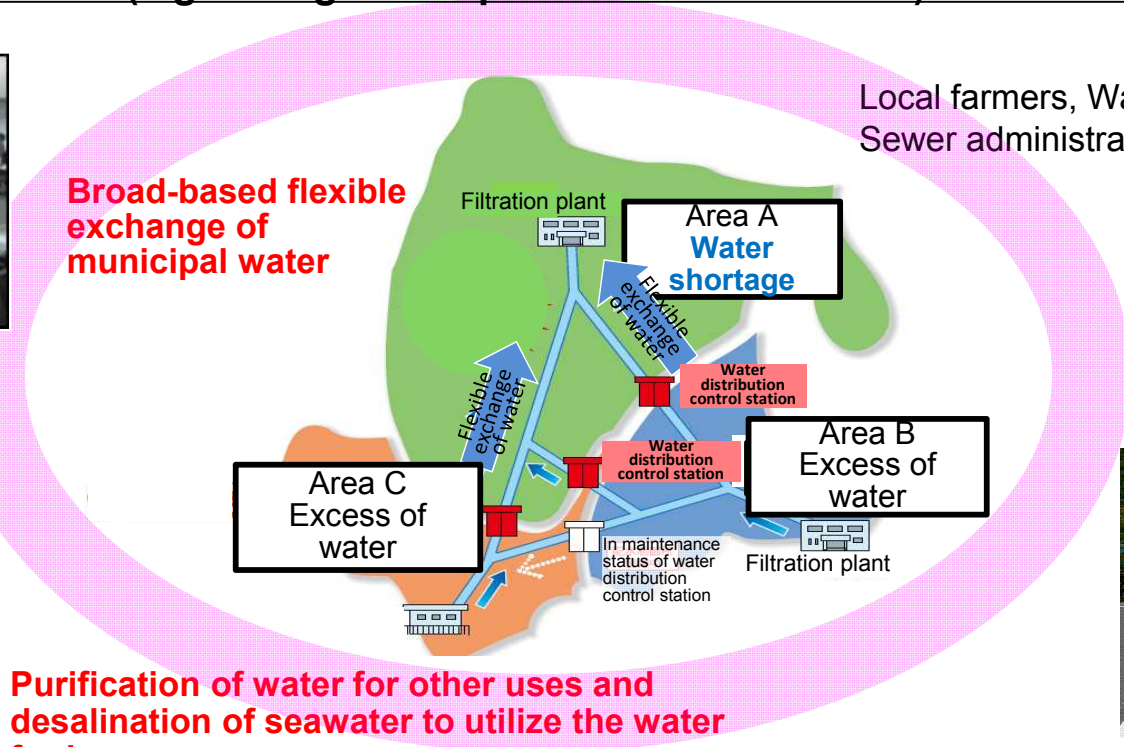
- Local related parties are prepared for severe drought even at normal times.
- The following measures are considered in advance. (Early restriction on water intake, flexible exchange of water between related parties, emergency supporting water supply)

→ **Quickly response to drought will minimize the effect on the economy and daily life.**

Applying past experiences (e.g. Drought in Japanese islands in 1994) to measures to be taken.



Broad-based flexible exchange of municipal water



Local farmers, Water supply administrators, Sewer administrators, River administrators

Utilization of sewage disposal water for sprinkling of water or other uses.



Purification of water for other uses and desalination of seawater to utilize the water for beverage use.

Basic Plan on Water Cycle: Main Measures, Example 2

Conservation and recovery of water environment

[Issues]

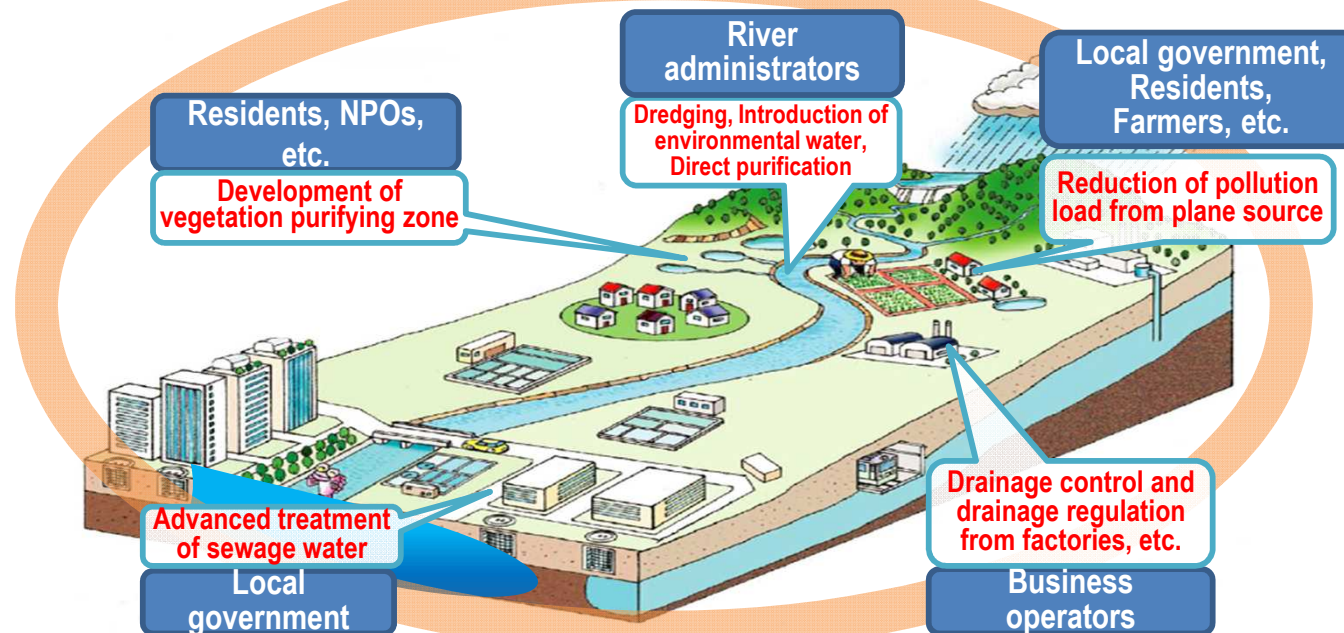
- Delayed water quality improvement in lakes and enclosed coastal seas
- Measures to be taken from each viewpoint such as water quality control and sanitary sewage treatment

New efforts (Plan)

- Individuals and institutions related to the river basin make a plan that clarify the division of roles for common goals.
- Measures (e.g. Reduction of the load of drainage, Dredging, Introduction of environmental water, Direct purification) are taken.

→ **Realization of a good water environment**

This plan is developed nationwide on the basis of advanced efforts, for example at Imbanuma lake, etc.



Basic Plan on Water Cycle: Main Measures, Example 3

Groundwater management

[Issues]

Groundwater management is centered on water intake regulation for preventing subsidence. Since the actual condition of groundwater is not clear, the appropriate utilization of the groundwater is a problem.

New efforts (Plan)

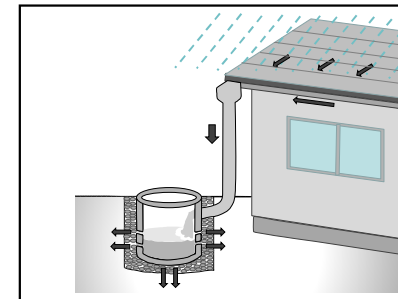
- Regional related parties determine on cross-sectional efforts through consultation and cooperation with each other.
- Sharing of basic data, understanding of the actual condition of groundwater, purpose of water intake, and rules for balanced utilization and conservation of groundwater.

→ **Makes conservation of groundwater and sustainable utilization of groundwater possible.**

This plan is developed nationwide on the basis of the example of advanced efforts in Kumamoto prefecture, etc.

NPOs etc.

Creation of a water source forest



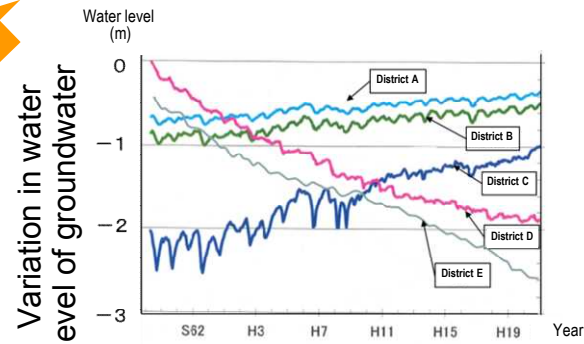
Residents, etc.

Groundwater infiltration facilities

Conservation and utilization of sustainable groundwater

Parties related to the environment

Investigation of springs



Local government, etc.

Understanding of the actual conditions of groundwater

Basic Plan on Water Cycle: Main Measures, Example 4

Promotion of education, dissemination and awareness raising

[Issues]

Public awareness about publicness and importance of water is low and there are few efforts for sound water cycles at the public or private level.

New efforts (Plan)

Support water conservation activities at schools, promote public participation in events related to "Water day (8/1)," support activities of dissemination and awareness raising by private companies.

→ **Active efforts by citizens, and joint efforts of the public and private sectors**

Activities on education, dissemination and awareness raising are stimulated by supporting existing grassroots campaigns, etc.

