Concept of **New Water Supply Vision**

Succession of reliable water supply to the future alongside communities

The above illustrates the relationship among the keywords as a concept of New Water Supply Vision: **Sustainability**, **Safety**, **Resilience**, **Challenge**, **Collaboration**

【Three viewpoints and the driving forces】
Changing circumstances

Countless problems
- Decline in population, water demand and income
- Need for risk management in unprecedented natural disasters
- Increasing demands for renewal of facilities
- Increasing risks in water quality of sources
- Decline of number of skilled engineers

Growing importance of collaboration, while sharing the principle

Principle to be shared
Down-to-earth approach based on the local relationship that has been built by preceding efforts for 130 years

Succession of top-leading water supply to the next generation

New Water Supply Vision
(March 2013)

Concept
Succession of reliable water supply to the future alongside communities
Current Condition and Task of Water Supply

- Current condition ... Overview of current water supply, including what have been expected and what have been achieved
- Task ... Recognition of issues that water supply is facing, including concerns and challenges to be solved

(1) Is sustainability of water supply maintained?

(2) Is safe water supply ensured?

(3) Is risk management thoroughly implemented?

Three Viewpoints

⇒ Sustainability

⇒ Safety

⇒ Resilience
Future Business Environment

● Changes in external factors

1. Decline in population
2. Decline in efficiency of facilities
3. Pollution of water sources
4. Destabilization of water resources

   ● Decrease in income due to decline in population and water demand※1
   ● Capacity of facility becoming excessive due to water demand decrease
   ● Change in water quality of sources※2
   ● Water resources being affected by unexpected precipitation patterns
   ● Disturbance of water treatment process caused by torrential rain

※1 Japan’s population is estimated to be 86 million in 2060, which corresponds to 70 percent of current population
※2 Pollution of raw water with unrestricted chemical substances and chlorine resistant pathogens, population concentration in urban areas and pollutant discharge into water resource areas

● Changes in internal factors

1. Aging facilities
2. Difficulty in securing funds
3. Decrease in workers

   ● Aging facilities and pipelines constructed during the period of high economic growth
   ● Financial difficulty caused by income decrease
   ● Interruption of skill succession due to mass retirement of post-war baby boom generation and restructuring of organizations
Water supply which is capable of sustainably supplying water that is appropriate in quality and amount to anyone, anywhere and anytime with reasonable costs by adapting to changes in the times and in the environment.

These goals for the next 50 -100 years are clarified and shared by all the stakeholders.
Direction of Actions (Safety)

### Goals for the moment

- Maintaining continuous safe water supply in every water supply system in **partnership** with the stakeholders

### Direction of actions

- Preserving and securing **good** water sources
- Establishing water supply facilities **that fit the characteristics of sources**
- Assuring **thorough water quality management** in treatment processes
- Monitoring and preserving water quality **collaboratively at a water basin scale**
- Establishing **systems for the provision of information** of water quality
- Establishing **systems for the supervision** of small-scale water suppliers
Direction of Actions (Sustainability)

Goals for the moment

- Implementing asset management and establishing future renewal plan of facilities as well as financial projection
- Providing information to customers and reflecting their opinions to the management
- Structuring a system for stakeholders’ collaboration

Direction of actions

(Firm financial basis for water supply)
- Securing funding and human resources/Maintenance of aging facilities

(Environmental consideration)
- Water circulation/Reducing environmental load/Enhancing Energy efficiency and harnessing renewable energy

(International cooperation)
- Acting as a part of a global society
Direction of Actions (Resilience)

Goals for the moment

- Defining the most important water supply base in each service area and making pipelines, etc. serving the base earthquake-resistant
- Establishing a relationship of stakeholders which enables the above facilities to function properly in the case of disaster

Direction of actions

- Strengthening facilities that enable necessary minimum water supply in case of catastrophic disaster
- Implementing emergency water supply and rehabilitation in collaboration with stakeholders
- Securing living water supply in case of emergency
- Establishing stable water supply systems in case of electricity deficiency
**Tactics**
Approaches that demands “challenge” and “collaboration” by stakeholders

1. Internal approaches
   I. Refinement of facilities
   II. Asset management
   III. Development of human resources and improvement of organizational capability
   IV. Risk management
   V. Environmental consideration

2. Collaborative approaches
   I. Communication with citizens
   II. Business integration and partnership
   III. Public-private partnership
   IV. Research and development
   V. International cooperation
   VI. Preservation of water sources

3. Approaches that demands new ideas
   I. Optimized water rate system
   II. Measures for small-scale water supply systems
   III. Measures for water supply systems for private use
   IV. Diverse methods of water supply

**Driving forces**

Attitude of “Challenge”

“Collaboration” among stakeholders
Roles of Stakeholders

Realization of goals by collaboration

Goals of water supply

Stakeholders of Water services

Private companies
- Innovation, water business, educating engineers

Organizations
- Supplying human resources and materials, R & D

Registered inspection bodies
- Water quality analysis and management

Suppliers of water services

Water utilities
- Establishing waterworks visions
- Maintaining face-to-face relationship with citizens

Suppliers of water for private use
- Proper hygiene management

Citizens
- Awareness as "owners" of waterworks
- Communication with water utilities

Support

Universities, Research institutes
- Human resources development, R & D

Higher education

Support and advice

Administrative bodies
- Securing human resources
- Following-up New Water Supply Vision
- Establishing prefectural visions
- Supporting other stakeholders