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Ecological Consideration



Previous flood control and water resources development projects have concentrated on function, often at the expense of nature and our environment,

Newly affluent and disenchanted with urbanization, many people have begun to search more actively for places to enjoy nature. Thus more effort must be made to create communities where the places in which people work and live are integrated with the natural river environments.

Improving water quality

Twenty million people think tap water smells musty.

River water quality has generally improved. Some urban rivers and lakes, however, remain so contaminated that even the quality of drinking water is often affected and people give up the opportunity to get acquainted with nature.

According to a Ministry of Health and Welfare survey, about

20 million people think that tap water they drink smells musty. Of these people, more than 90 percent live in the Tokyo Metropolitan or the Osaka-Kyoto area. This indicates that there is an urgent need to improve the water quality of rivers running in or near urban areas.

■ Number of people who think tap water smells musty

| Fiscal year | 1987 | 1988 | 1989 | 1990 | 1991 |
|-------------|--------|--------|--------|--------|--------|
| Hokkaido | 0 | 242 | 233 | 125 | 5 |
| Tohoku | 113 | 20 | 46 | 183 | 6 |
| Kanto | 2,671 | 2,812 | 4,559 | 8,944 | 8,701 |
| Chubu | 5 | 1 | 10 | 4 | 24 |
| Kinki | 10,965 | 10,193 | 11,302 | 12,440 | 11,962 |
| Chugoku | 23 | 1 | 94 | 32 | 480 |
| Shikoku | 79 | 99 | 101 | 113 | 113 |
| Kyushu | 90 | 493 | 293 | 674 | 284 |
| Total | 13,875 | 13,632 | 17,538 | 21,925 | 19,587 |

* Source: Ministry of Health & Welfare, "Survey on Unpleasant Taste and Smell of Drinking Water"

■ Every one wishes for "safe," "tasty," and "clear" water.

Surveys about rivers and water show that many people yearn for water that is "safe," "tasty," and "clear."

We are working to secure "tasty" and "clear" water, which makes life safe and comfortable.



■ People's wishes concerning water

Water quality



1990 Prime Minister's Office survey

Rivers environments



1990 Prime Minister's Office survey

We want to restore clear streams and lakes by the year 2000: Clear Water Renaissance 21.

Emergency Action Plan for Improvement of Water Environment (Clear Water Renaissance 21) aims to improve, by the year 2000, the water environments of rivers, lakes, and dam reservoirs which have particularly severe adverse effects on the environment or drinking water. Joint efforts of the municipalities, residents, and concerned government agencies to organize and implement comprehensive measures are expected to make a big difference. Measures include river projects such as river purification and water flow preservation channel projects, sewerage projects such as basin-based sewer systems, and

other related measures such as water purification projects for waterways, installation of combined wastewater treatment tanks, and drainage regulation

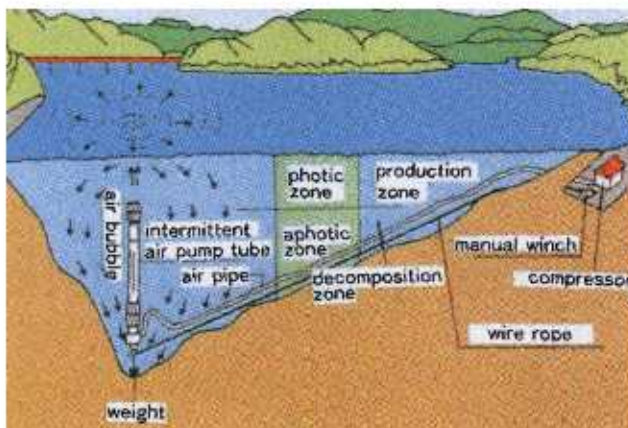


Ikemachi River
(Fukuoka pref.)

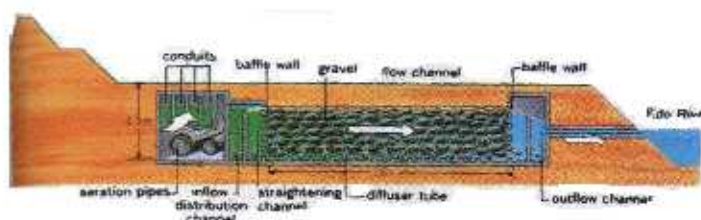
■ Examples of purification measures now in progress

Various measures to improve water quality are now under way. Shown here are selected examples of such measures

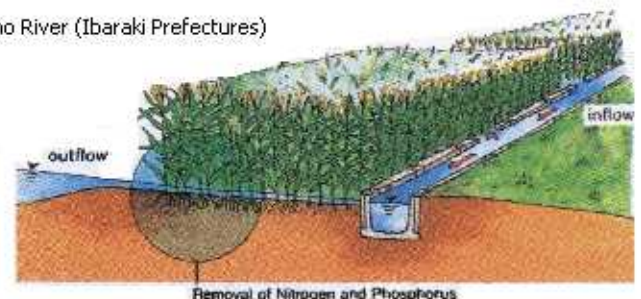
■ Before purification



Plant Purification on Sanno River (Ibaraki Prefecture)



Cross-section of Kogasaki
Purification Plant (Chiba Prefecture)



Removal of Nitrogen and Phosphorus

Conservation

Protection of humankind sometimes inevitably affects nature. That's where creation of nature-friendly river comes in.

Most people if given a choice would like rivers to remain natural and nature-rich. Yet to guard against the violence of nature, people have, from ancient times, tried to control nature. Flood control projects are a typical example of such efforts.

Since the purpose of flood control projects is to deal with nature in the form of rivers, it is impossible to implement flood control projects without affecting nature. Nevertheless, efforts

must be made to find ways to live with nature by restoring the natural environment or creating a better one.

Nature is bountiful to human and nonhuman creatures alike. The "nature-friendly river" scheme we are proposing is an approach based on our technology and philosophy which have evolved from that understanding.



The goal "living with nature" may sound too ambitious, but there are many things we can do in everyday life.

Rivers and lakes are invaluable habitats for a variety of life forms including animals, such as fishes, birds, and insects, and numerous plant species.

Today, "quality of life" is a major concern. That, however, does not justify turning our eyes away from nature. On the contrary, that is the reason we should turn loving eyes to nature. In order to attain the goal of living with those plants and animals, it is necessary to continue our efforts to conserve and create nature-rich river environments.



Restoring livable environments

From olden times, rivers have universally been thought of as community symbols. The challenge is to make rivers attractive enough to be called community symbols again.

The Seine, the Thames, the Sumida, The Cheng Kiang — these are all rivers which have, from olden times, been regarded as places for everyday activities, as community space, as main streets, and as community symbols. In recent years, however, deterioration of water quality has made rivers less attractive, and rapid urbanization has made rivers less accessible, thereby tarnishing the river's image as a community symbol. There is a need, therefore, to restore the functions of rivers, such as landscape, natural environment, and culture, and make them attractive enough to be called community symbols.



Creation of a river harmoniously integrated with the community. That is the goal of "Hometown Rivers" .

Creation of an attractive and culturally sophisticated community seamlessly blending with a river. Hometown Rivers projects provides support to municipalities which are both enthusiastic and creative in their pursuit of community development harmoniously integrating with river space development. In order to encourage volunteer efforts in the local community, the plan for these projects, usually a 5-year undertaking, is formulated by a committee of scholars, representatives of the concerned prefectural and municipal governments, and community representatives.



Restoring livable environments

Dams can perform the task of blending with the surrounding landscape.

Dams abound with the attractions found at features of resorts, such as abundant water, neatly constructed roads, and mountains covered with lush greenery. In order to enable people to enjoy the dams and their more, effort is under way to improve the environmental quality of dam areas.

"Home town Erosion Control" projects, prevent sediment disasters and support community development efforts.

A community that has been exposed to the danger of sediment disasters begins to work to become a safe and culturally sophisticated area. "Hometown Erosion Control" projects support such effort.



(Okinawa pref.)

Slope preservation projects prevent sediment disasters and make effective use of slopes as green parks.

The upper part of a hill prone to sediment disaster is removed. Then this stabilized area is used effectively as a park, for the purpose of regional revitalization. "Specified Use Slope Preservation" projects provide support to municipalities that are working toward both disaster prevention and public land use.



Several years after the building of prevention works



Jizukiyama Landslide (June 5, 1990)

Restoring livable environments

We are working to make coastal zone more enjoyable and useful.

■ Coastal Community Zone (CCZ) project

Conventional approaches to coastal development have focused heavily on disaster prevention. Future efforts, however, should encompass measures to not only prevent disasters but also develop coastal space into a medium through which to

promote contact between human beings and the sea. The Coastal Community Zone project scheme is one such approach. The goal of CCZ is, by combining public works such as coasts, parks, roads, and sewer systems, and private sector vitality, to create an environment that will encourage people to enjoy the sea.

