Participation in Japan

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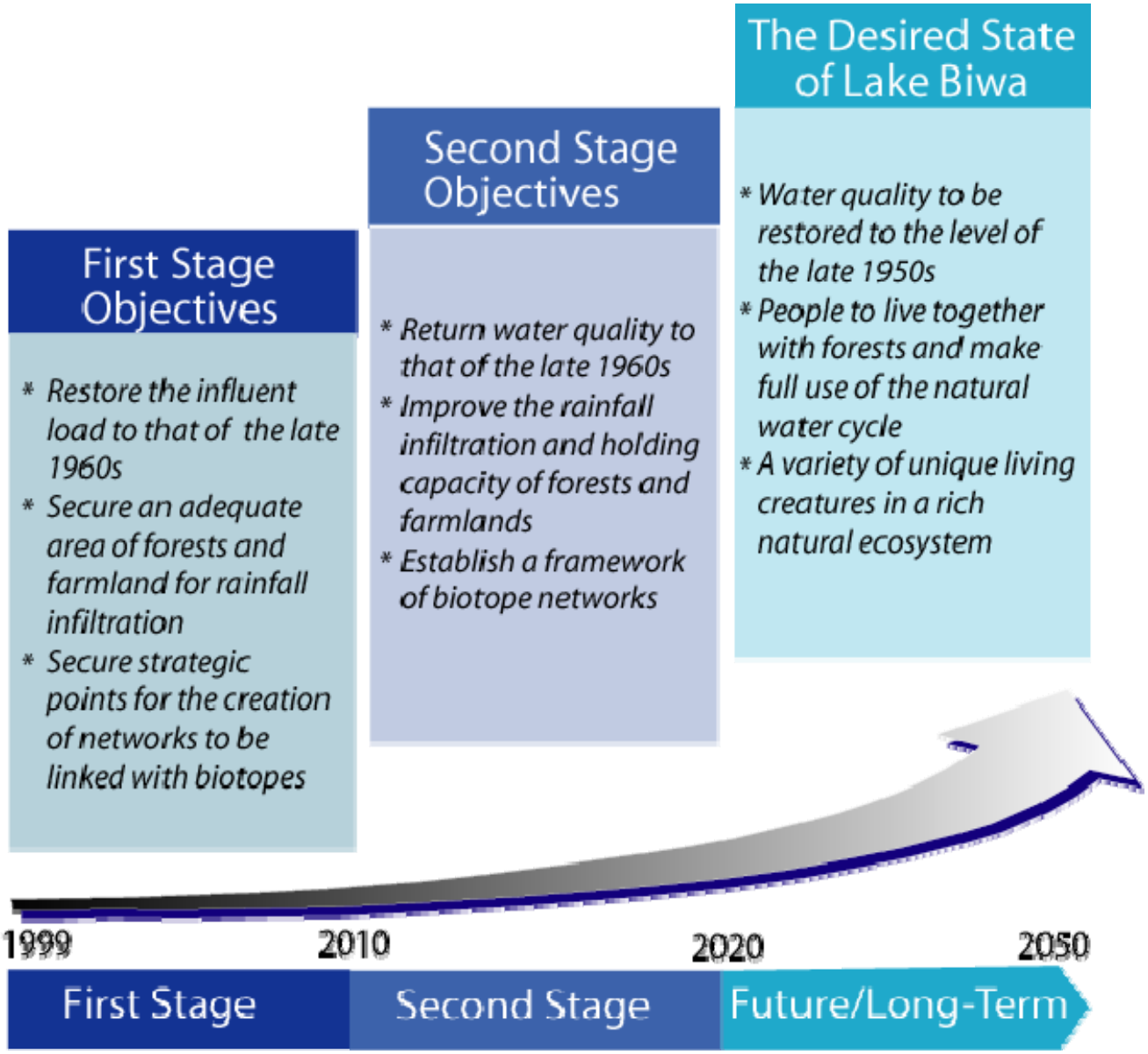
1. Introduction

Lake Biwa and its Catchment Area

Lake Sub-basin	North Basin	South Basin
Riparian Countries	Japan	
Lake Origin	Tectonic	
Climatic Region	Warmer Humid (Humid subtropical)	
Drainage Basin Type	Open	
Salinity Type	Fresh	
Altitude	85.6 m	
Surface Area	616 km^2	58 km^2
Drainage Basin Area	3,174 km^2	
Volume	27.3 km^3	0.2 km^3
Maximum Depth	103.6 m	8 m
Average Depth	44 m	3.5 m
Residence Time	5.5 yr	0.04 yr
Population	1.3 million	
Population Density	378 persons / km^2	

The lake occupies one sixth of the jurisdictional area of Shiga Prefecture. Its watershed including the lake itself covers 90% of the prefectural land, whereas 97% of the catchment area lies in the prefectural area.

Mother Lake 21 Plan (2000)



2. What is the community?

What is the community?

- R.M. MacIver defines that in which people live together in a specific **locality**;
- And **community sentiment** is consequently fostered and common features can be observed. Those features include
  - **social likeness**;
  - **common social idea**;
  - **common custom**; and
  - **sense of belonging together**.

Community & Association

- The concept of "**community**" is counterparted with the one of "**association**", which is organized to pursue a specific interest(s).
- The community is a complex involving numbers of associations in a specific area.

3. Traditional Japanese Community Organizations (TJCOs)

Traditional Japanese Community Organizations (TJCOs)

- Japan has had another type of TJCOs, which is called as "***Chonaikai***", "***Jichikai***", or so forth, from the very start.
- There are two different kinds of community organization in a multi-layered today in Japan, one is western style and the other traditional Japanese style, developing an exceptional and complementary relationship in between.

History of TJCOs (1)

- Can be traced back to "*Goningumi* (quinternion)" in the Edo-era, several hundreds years ago, or even a neighborhood group system brought in Japan from Ancient China more than one thousand years ago.
- Devised originally as a control mechanism to rule farmers, and was also a mutual assistance system of farmers.
- Once abolished by the Meiji Government in the 1870s, but quickly made a comeback.

History of TJCOs (2)

- In 1940 officially incorporated in local instruments of municipal governments and played a crucial role in the World War II.
- Dismantled by the Occupation authorities right after the war, but again rose from the dead substantially when the peace treaty came into force.
- Today TJCOs can be found anyplace in Japan.

Main Features of TJCOs

- Main features as follows:
  - **Comprehensiveness of function**
  - **Compulsory participation**
  - **Household membership**
  - **Government subcontractor**
  - ***Gemeinschaft*** (of community).
- Typically composed of a few hundreds of households.
- Operated by community members themselves and financially with membership fees and partly with subsidies from governments.

Why TJCOs could survive trough the long history of Japan?

- Because TJCO has been always needed as it is a fundamental organ for local society. It
  - Ensures local security;
  - Beautifies and protects neighbor environment;
  - Cultivates mutual friendship of neighbors;
  - Provides emotional relief;
  - Goes between governments and local people; and
  - Acts as an autonomous and resistance body in case of community's crisis.

4. Community Building Activities (CBAs) in Japan

Community Building Activities (CBAs) in Japan

- CBAs are strong all over the nation in Japan.
- Which have been promoted by Ministry of Home Affairs since 1970. → A lot of new CBOs have been established by CBAs.
- The concept and term of "**community**" came from Europe and USA.
- CBAs came under the direct influence of the same ones in USA in the 1960s.

CBAs in Japan

- Started in 1970.
- When a number of TJCOs were on the brink of collapse due to concentration of the population into urban areas, urbanization of life style (individualism), and changes in family structure as a result of rapid industrialization.
- Some social problems emerged, such as juvenile delinquency and lessening local community's function of disaster prevention.
- People also needed some organ to tackle traffic and pollution problems and to meet their needs for higher quality of life.

Major Goal of CBAs

- Proposed for filling a void of TJCOs.
- Aim to create new local societies instead of collapsed traditional ones through
  - Organizing local people to form new CBOs and
  - Running such CBOs by conscious and voluntary “citizen”s
  - In an open and democratic manner.
- A lot of new CBOs have been established with the initiatives of governments across the country.

Main Features of CBAs (1)

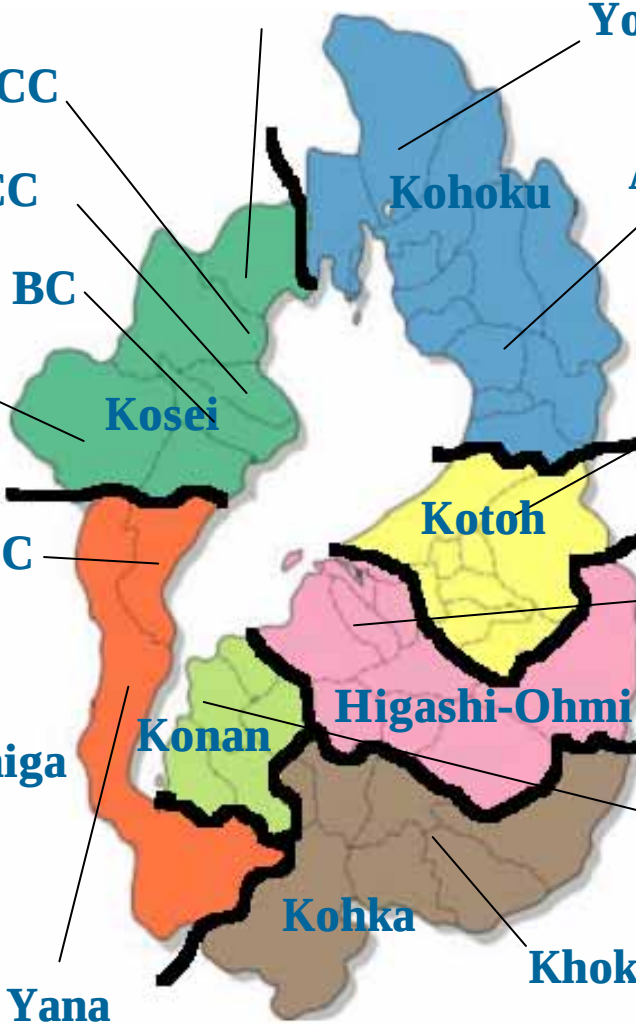
- Completeness of institutionalization: A CBO in a form of consociation is usually inaugurated, which is composed of all the major local organizations including TJCOs and PTA typically in a primary school district.
- The activities also try to meet local people's diverse and high level needs such as cultural needs and human services whereas TJCOs try to meet their basic needs.

Main Features of CBAs (2)

- The goals of newly created CBOs are very clear as they are organized for specific purposes. In regard to this matter, those CBOs resemble “association”s rather than communities.
- However, leadership cannot be manifested or is not strong enough in comparison with TJCOs.

5. Basin Consociations of Lake Biwa

Basin Consociations at Lake Biwa



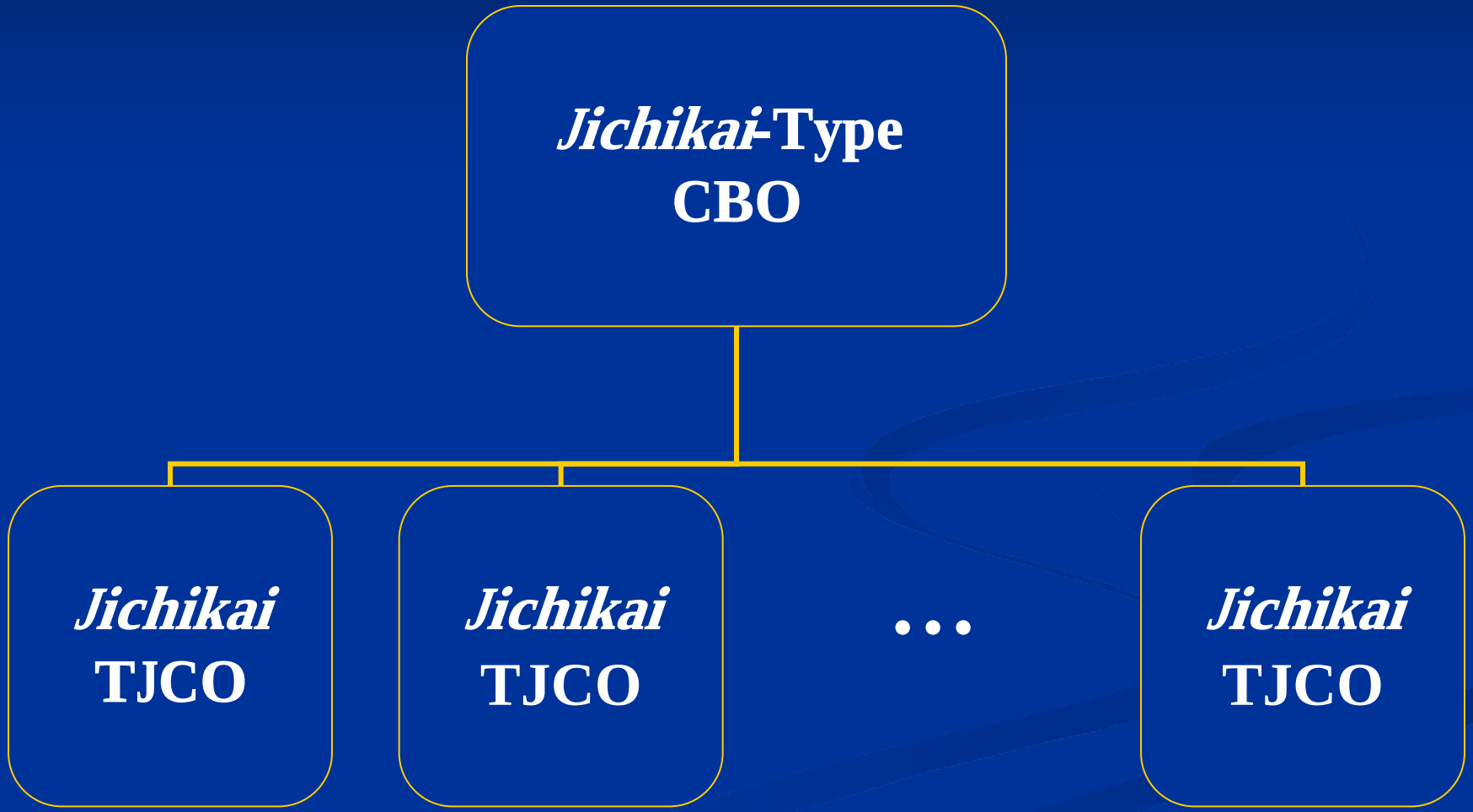
A magnificent pilot program toward the creation of environmentally-sound society around Lake Biwa

Community-based Basin organizations

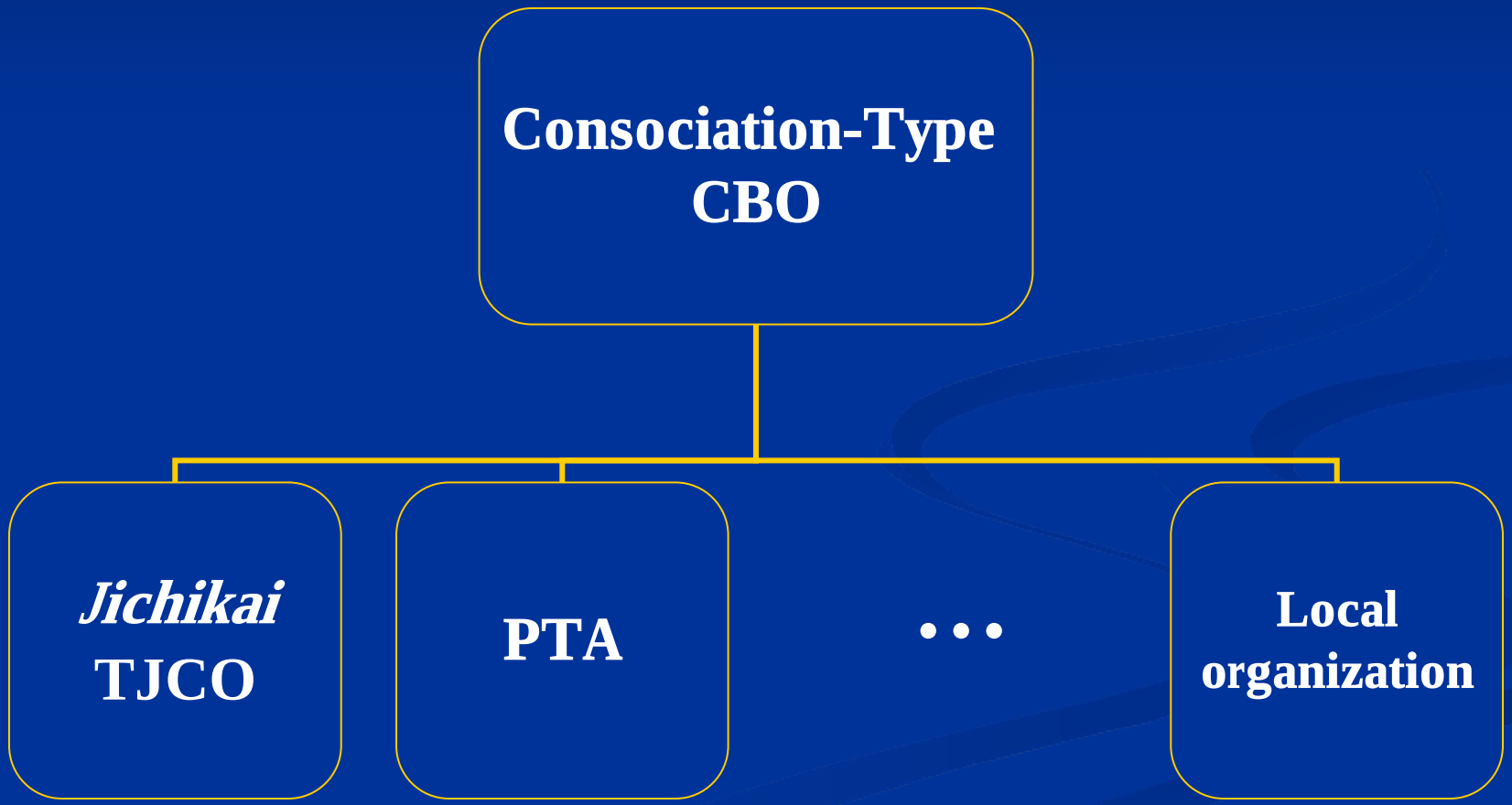
Type of CBOs

- Depending on the degree of TJCOs' involvement in the organization, CBOs in Japan can be classified into three types:
  - (J)*ichikai*-Type CBOs are comprised of mainly TJCOs;
  - (C)onsociation-Type of various local organizations including TJCOs; and
  - (N)etwork-Type of voluntary individuals and organizations independent of TJCOs.

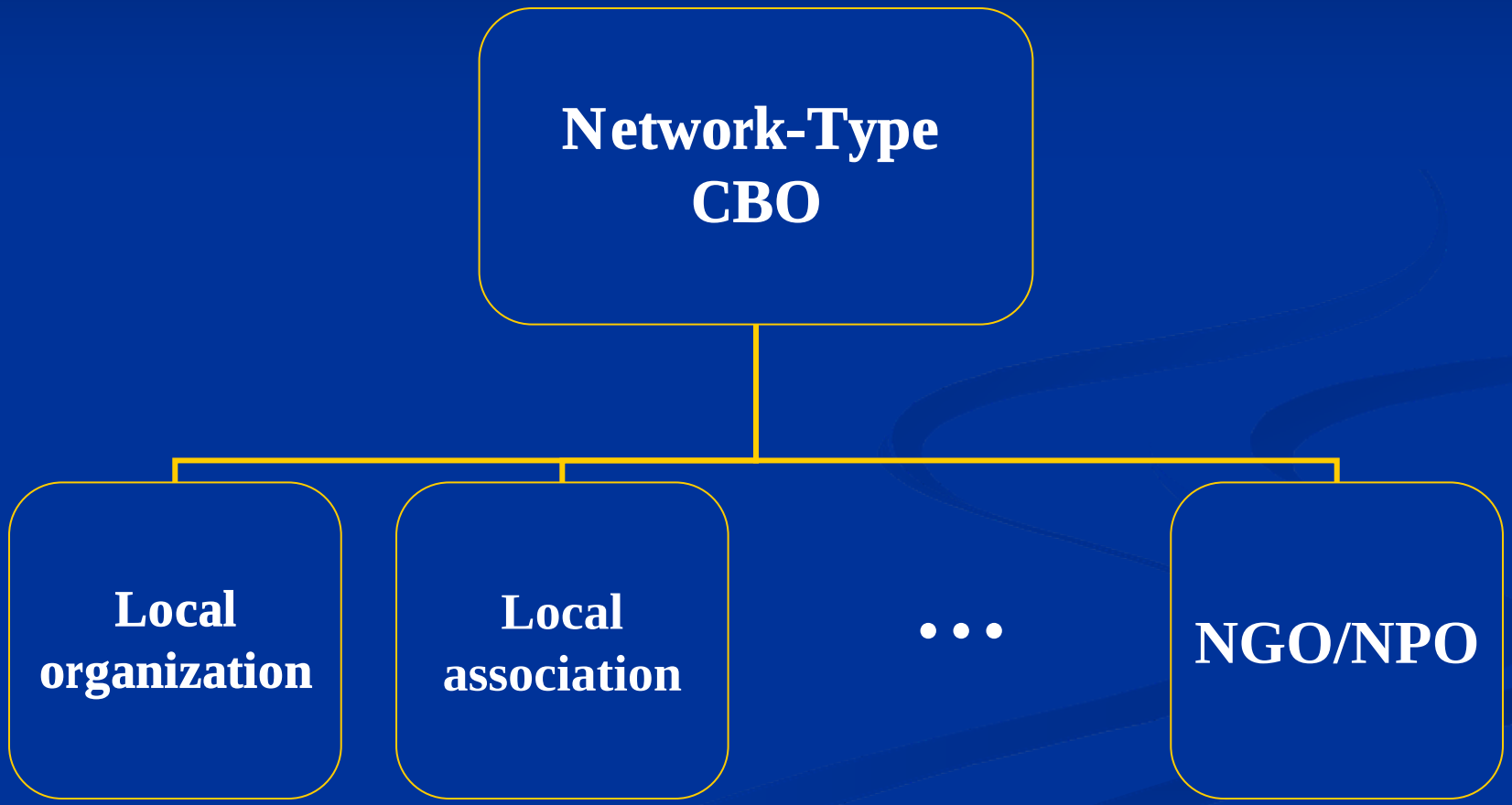
Jichikai-Type CBOs



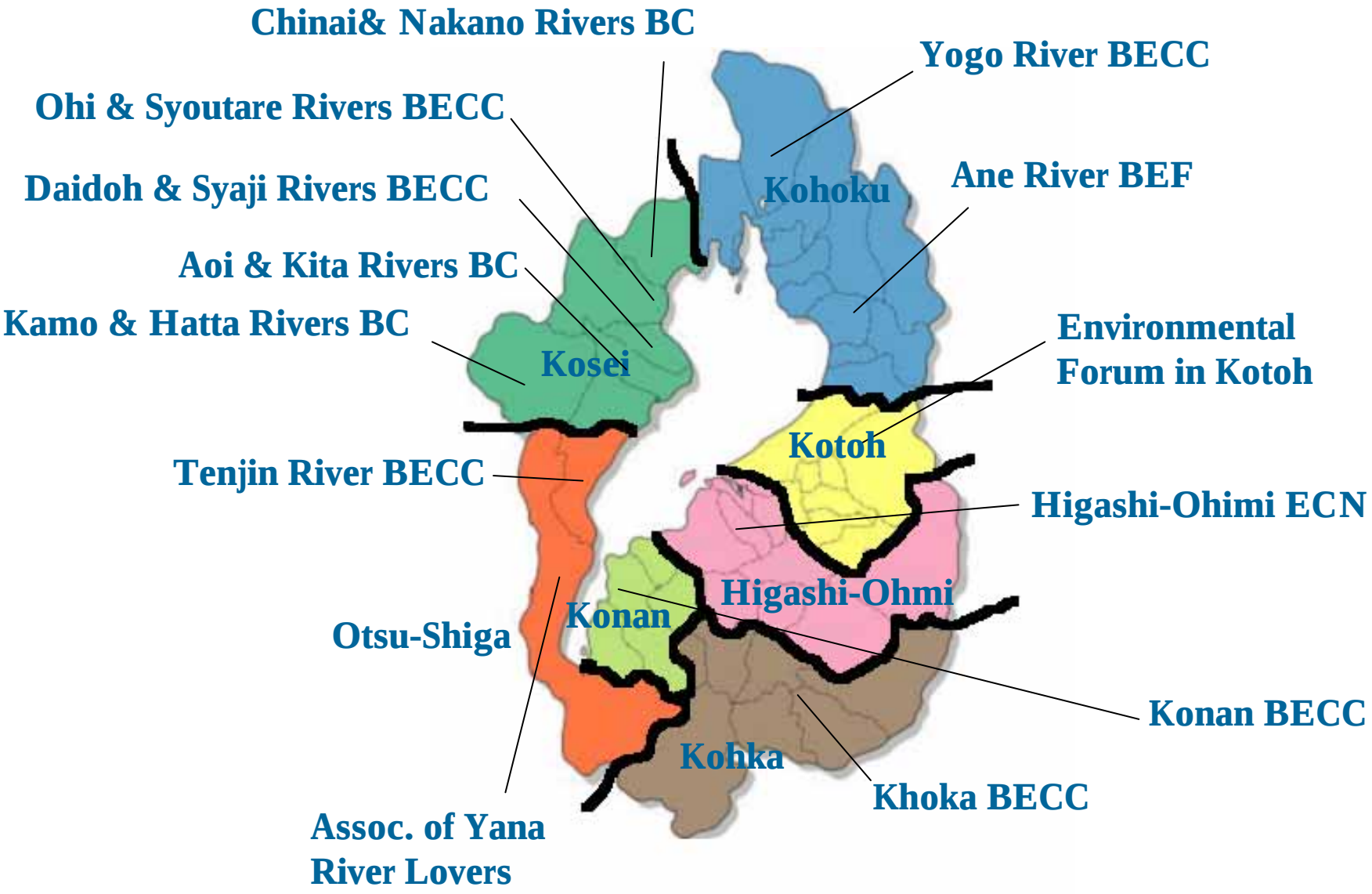
Consociation-Type CBOs



Network-Type CBOs



BCs & Lake Biwa Basin Network Committee



13 BCs at Lake Biwa

Area	Name of consociation	Type of CBO	Date of Foundation
Otsu-Shiga	- Tenjin River Basin Environmental Conservation Consociation	J	2002/03/10
	- Association of Yana River Lovers	J	1984
Konan (South Shore)	- Konan Basin Environmental Conservation Consociation	N	2001/08/30
Khoka	- Khoka Basin Environmental Conservation Consociation	N	2001/04/22
Higashi-Ohmi (East Shiga)	- Higashi-Ohimi Environmental Conservation Network	N	2000/07/05
Kotoh (East Shore)	- Environmental Forum in Kotoh	N	2001/05/24/
Kohoku (North Shore)	- Yogo River Basin Environmental Conservation Consociation	C	2001/05/20
	- Ane River Basin Environment Forum	C	2002/08/07
Kosei (West Shore)	- Kamo and Hatta Rivers Basin Consociation	C	2001/06/29
	- Chinai and Nakano Rivers Basin Consociation	C	2001/09/24
	- Ohi and Syoutare Rivers Basin Environmental Conservation Consociation	C	2002/10/03
	- Aoi and Kita Rivers Basin Consociation	C	2003/09/08
	- Daidoh and Syaji Rivers Basin Environmental Conservation Consociation	C	2003/12/04

J: *Jichikai*-Type, C: Consociation-Type, and N: Network-Type

Building BCs as CBAs

- Building Basin Consociations can be viewed as CBAs of Shiga's people for the conservation of Lake Biwa.
- Geographical area of activities is confined to the watershed of respective major river.
- Each BC is composed of local people and organizations in the watershed, and open to any local residents and being operated in a transparent and democratic manner.

Parent-and-Child Environmental Learning Class
“River Watch in Summer”

http://www.pref.shiga.jp/kusatsu-pbo/kankyoshinrin/kyogikai1.htm

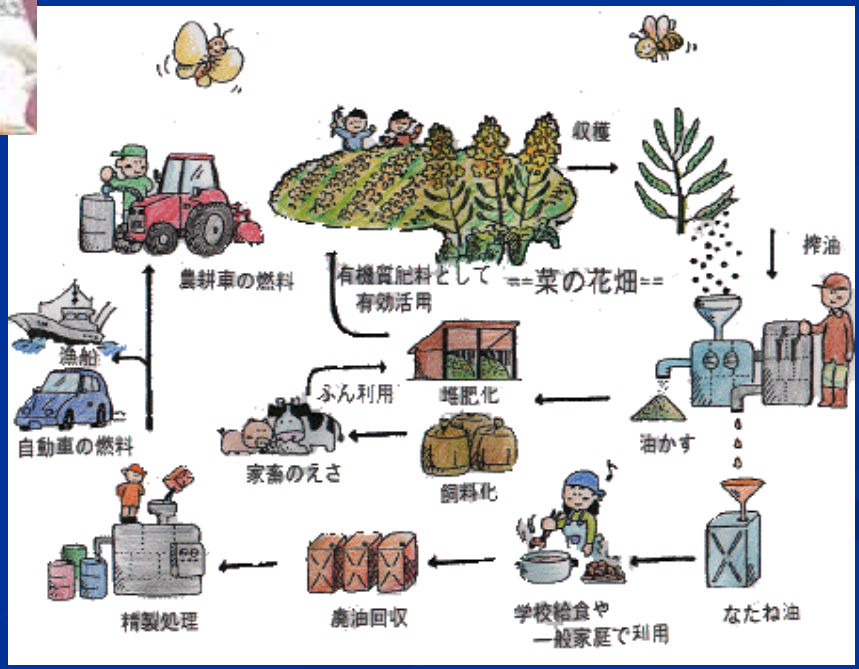
Iemune River “Nature Hikes & Headstream Exploration”

Symposium
http://www15.ocn.ne.jp/~foramkot/news.htm

Cleanup Activity
http://www.tokyo-np.co.jp/00/sga/20041205/lcl_____sga_____001.shtml

Simplified Water-Quality Test
http://www.ds-j.com/nature/watching/kansatukai/2004/0905/

Nano-Hana (Rape Blossoms) Project
http://www.econavi.or.jp/
Rapeseed → Rape oil/Rapeseed meal
Rape oil→ Used oil → BioDiesel Fuel
Rapeseed meal → Animal fodder/Compost (→ Livestock wastes → Compost) → Rape Field



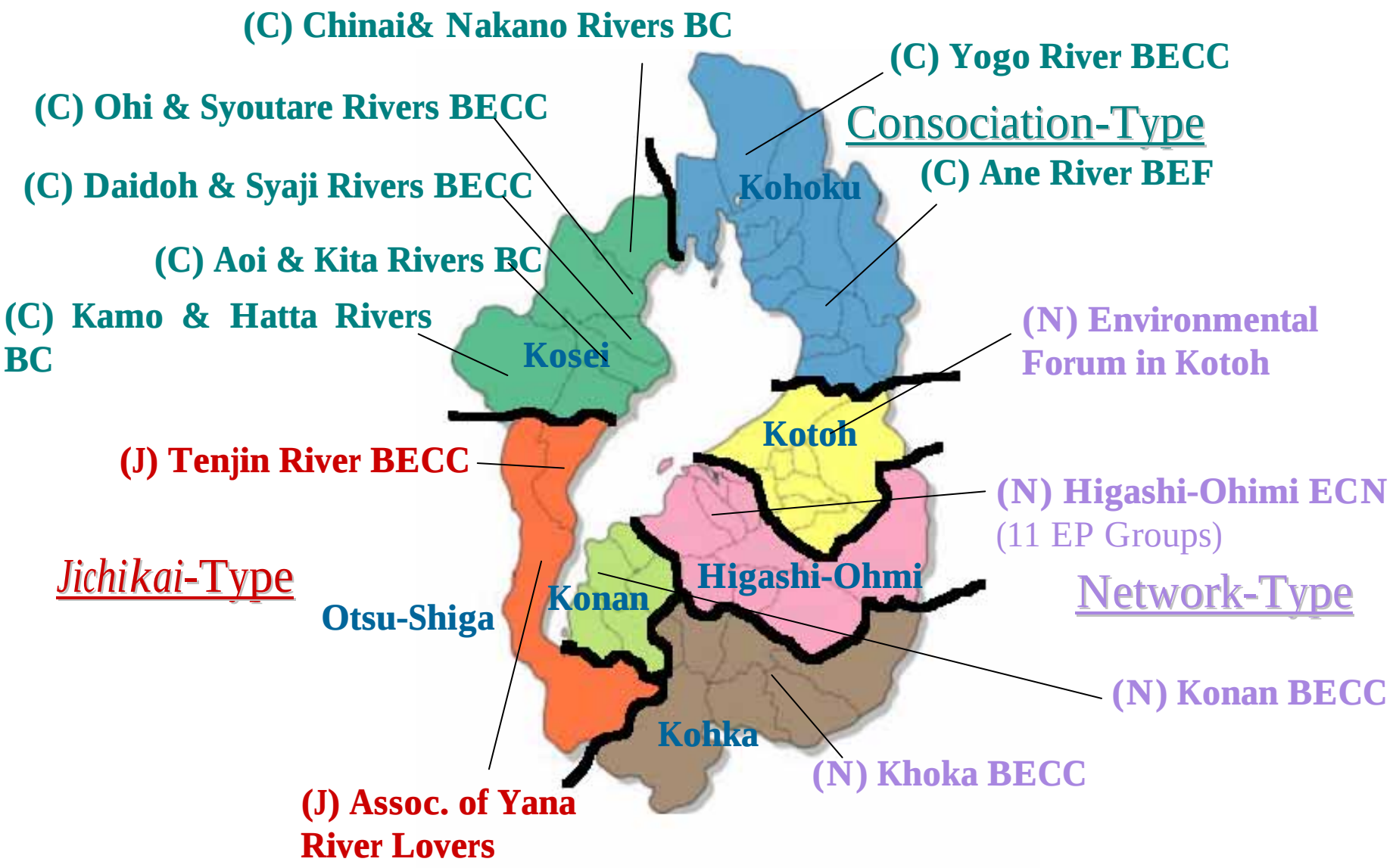
Activities of BCs & constituent members

Constituent Members	Activities
Basin Consociation	symposium, study meeting, environmental education, transmission of information, waste reduction & recycling, local production for local consumption, headstream exploration, water quality conservation, cleanup activity, eco-tour, environmental research (aquatic life, water quality, bird)
Local office of the prefectural government and municipality	symposium
Jichikai	cleanup activity, beautification campaign
Parent-Teacher Association	environmental education, cleanup activity
Junior Association	cleanup activity
Consumer group	use-of-soap promotion, local production for local consumption
Mizusumashi (Farmer's) Consociation	agriculture of environmental conservation type
Basin organization	waste reduction & recycling, local production for local consumption, environmentally-sound fishery, headstream exploration, forest conservation, making bamboo charcoal, photograph exhibition, water quality conservation, cleanup activity, tree planting, transmission of information, organic farming, traditional arts, eco-village, eco-tour, environmental education, clipping reed, environmental research
School official	environmental education
Individual (forest instructor, bio-environment adviser, environmental initiative promoter, environmental conservation counselor)	environmental education, environmental research

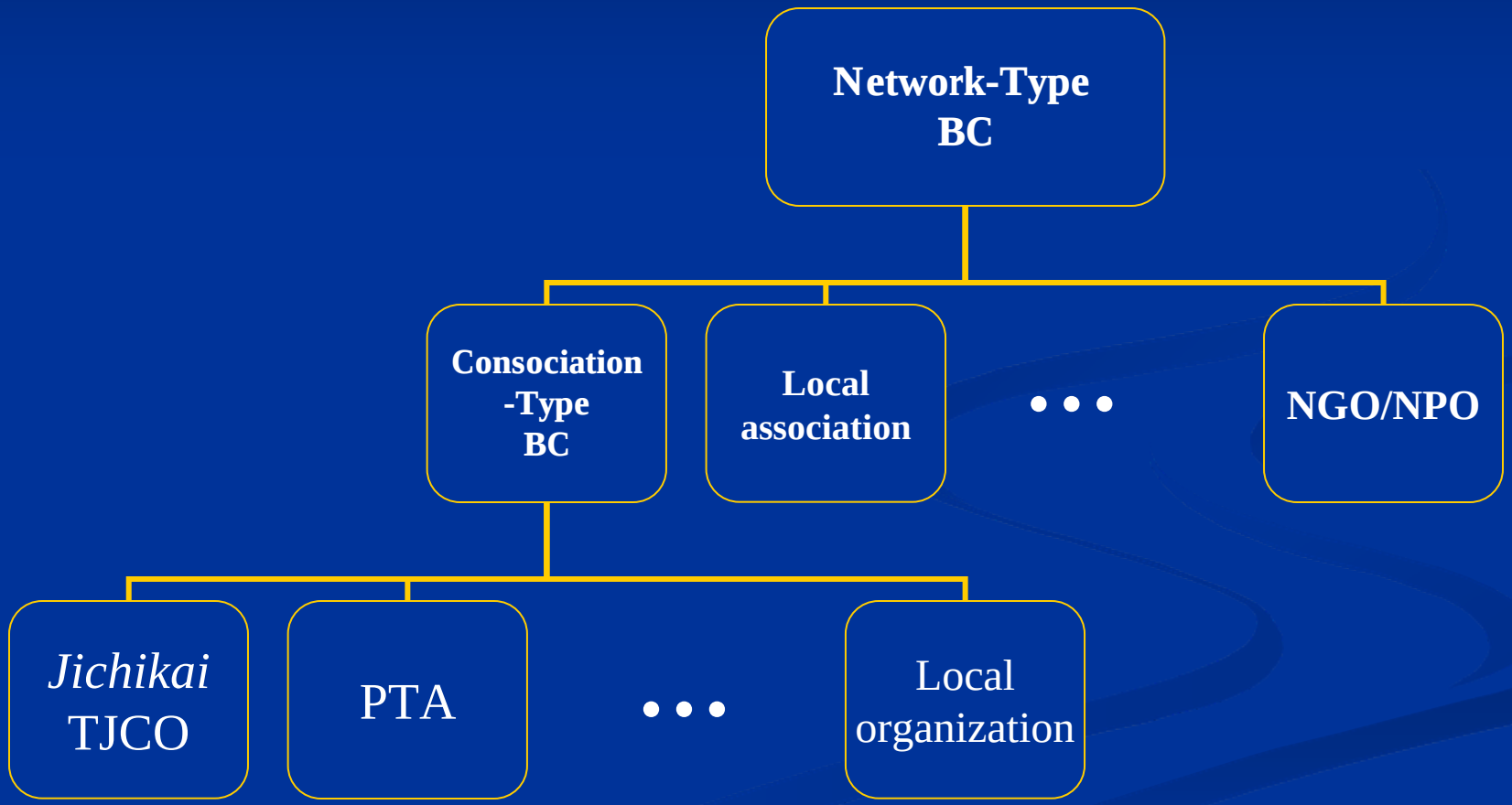
Activities and Constituent Members of BCs

- Activities and constituent members of BCs are miscellaneous.
- Environmental issues are quite diverse and demanding today. → BCs have been making an effort to meet needs of local people who ask for higher quality of environment.
- The forms of BCs are fairly diverse. BCs can be also classified into the aforementioned three types of CBOs.

Type of Basin Consociations (BCs)



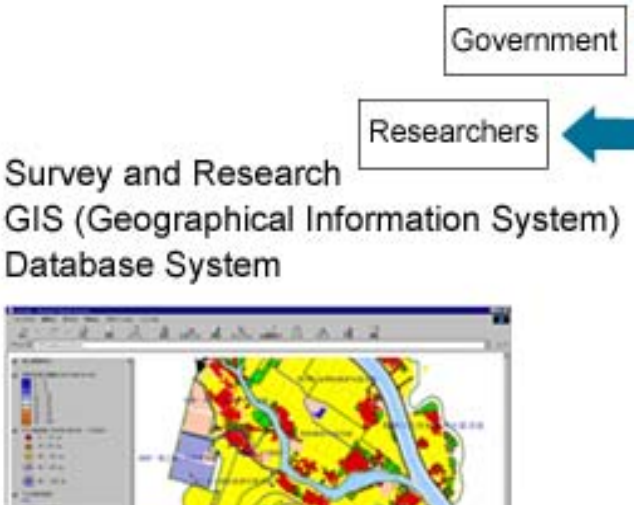
Another BC in a BC

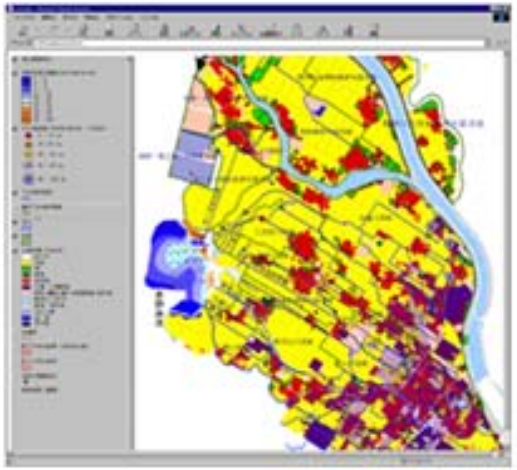


Akanoi-Biwako Environmental Citizens' Initiative (1996 -)

- Consociation-Type BC in the Konan BECC
- Leading environmental protection group at Lake Biwa
- Working for restoring municipal rivers in Moriyama City and downstream Akanoi Bay to original state.
- The number of membership is about 400 including almost all *Jichikai*'s in the city, a farmer union, women's associations, and individual members.
- Conducting clean up activities of municipal rivers, cultivation of fire flies, making city maps of water quality and fire flies with a GIS system, and information dissemination through the Internet

Akanoi-Biwako Environmental Citizens' Initiative (1996--)





Citizens undertaking water-environment studies

Water-environment map

Publication of study results

Information-sharing in the Akanoi Bay area, Lake Biwa :

The water in the Akanoi Bay, Lake Biwa, is highly eutrophic and has seen frequent occurrences of blue-green algae (Cyanobacteria) blooms since around 1988. Measures have been introduced to reduce pollution load from the watershed, that resulted in some improvement in the bay water quality over the past several years. Further reduction in pollution load, particularly of non-point origin, requires the initiatives of the citizens, including the farmers, to be significantly enhanced. Information sharing through the use of GIS mapping system has proven to play a very catalytic role for promoting greater collaboration among the citizens, government officers, industries and research scientists, an essential step for development of a much-needed community-oriented environmental policy.

Strategies of ABECI

- Active exchanges with overseas' lakes and activists and convened two international sessions.

  http://www.lake-biwa.net/akanoi/index-e.htm
- Energetic PR activities to the world and international exchanges are its strategies to raise members and to bring together the organization as well as tools to appeal the activities.
- Emphasizes down-to-earth activities of *Jichikai*'s in the organization.
- Those *Jichikai*'s activities collectively back up the sustainability of ABECI's entire activities.

6. Citizen's Basin Organizations in Japan

Yahagi River

A medium-sized and class-A river with a total length of 122 km. It has origin at the southern tip of the Japan Alps in Nagano Prefecture, and runs through Toyota City and Mikawa Plain, finally pouring into Mikawa Bay.

http://www.ksl.co.jp/~tsusaka/yahaall.htm

Yahagi River Basin

- Its watershed is 1,830 km^2, including 27 municipalities in 3 prefectures, Aichi, Gifu, and Nagano.
- Located in Nagoya Urban Area; industrialization and urbanization has been remarkable since the high-growth era particularly in the downstream area.
- Not only a large industrial center, which is densely populated (total population = 1.3 million), but also a huge agricultural zone.

History of environmental activities and partnerships in Yahagi River Basin

Period	Major Issues	Description
(Meiji Era to pre-WWII)	Flooding and murky waters	Meiji Irrigation Canal became operational in 1881. Frequent occurrence of flooding, murky waters, and soil erosion due to the devastation of mountain villages. → Afforestation of water source forests for Meiji Irrigation Canal began. (Restoration of denuded land by erosion and flood control projects in the prewar period)
High-growth era (early 1960s – mid-70s) Period of Confrontation	Deterioration of water quality	Urbanization and industrialization of catchment area – development of building lots and industrial parks. Muddy water from barrow pits, polluted water from factories. → Water clarification movement by suffered farmers, fisher folks and the Yahagi Riverside Water Quality Conservation Consociation. → Amelioration of industrial water pollution problems and river water quality by Water Pollution Control Law.

- In Yahagi River, murky and polluted waters problem took place due to rapid urbanization and industrialization in the downstream area during the high-growth era. To protect river water quality, a citizen's movement started with the initiatives of suffered farmers and fisher folks in 1962.

Yahagi Riverside Water Quality Conservation Consociation (YRWQCC)

- The river water pollution hit the peak in 1966, when the Yahagi Riverside Water Quality Conservation Consociation (YRWQCC) was established.
- YRWQCC was composed of 18 organizations in total, including 5 irrigation associations, 1 agricultural cooperative, 7 fishermen's unions at the river mouth, and 5 municipalities in which the river water was used for drinking water.
- “A basin is a common destiny.”
- Since no *Jichikai* participate in YRWQCC, it can be clarified into Network-Type CBO.

History of environmental activities and partnerships in Yahagi River Basin

Period	Major Issues	Description
(Mid-1970s – early 80s) Period of Cooperation	Conservation of water quality	Murky waters due to the development of golf courses in the upstream forest area. → Energetic exchanges between upstream and downstream people seeking for clean development, and water calcification movement by downstream communities. → Growth of "Yahagi River Method", a citizen's initiative, for the protection and purification of water quality.

- YRWQCC was at first conducting mainly protest activities for preserving river water quality. Triggered by a development plan of golf curses upstream in the mid-1970s, it realized, however, that both the downstream and upstream should understand each other and work together. As a result, YRWQCC shifted the direction of activities to environmental conservation with dialogue and collaboration.

Yahagi River Method

- Endorsed by Aichi Prefectural Government, any large-scale development project in the basin requires the approval of YRWQCC. (1977-)
- Requirement of an environmental impact assessment for large-scale development (1983-)
- Citizen's patrol.
- Setup of a pollution prevention liaison council during construction.

Mr. Naitoh and local activists on patrol (1974)
http://www.osamu.gr.jp/news/07/07-3.htm

History of environmental activities and partnerships in Yahagi River Basin

Period	Major Issues	Description
(Early 1980s – end of 90s) Setup of watershed management Systems	Securement of water quality and Quantity	Establishment of "Yahagi River Method" and the Yahagi River Basin Development Exchange Organization. Deepening of upstream and downstream exchanges. Fledgling of "one-watershed, common-destiny" feeling. → Increase in water demand due to urbanization and industrialization. → Promoting forestation of water source forests by profit-sharing method.
(Since 2000) Toward new up- and downstream collaboration	High level security of water quality and quantity	Tokai Rainstorm: flood wood and sediment discharge in upstream areas, record flooding in mid and downstream areas. → High demand for water security in entire watershed.

- YRWQCC continued to expand, and came to consist of 52 local organizations including 3 irrigation associations, 1 agricultural cooperative, 20 fishermen's unions, 27 riparian municipalities, and 1 agency of the prefectural government in 1982.
- The citizen's movement initiated by farmers and fisher folks in Yahagi River Basin has successfully motivated and involved local administrations and other organizations, generating people's consciousness that they must not discharge impure waters.

Major basin organizations and their activities in Yahagi River Basin

Organization	Date of foundation	Description
Yahagi Riverside Water Quality Conservation Consociation (YRWQCC)	1969	- Citizen patrols to identify pollutant sources - Lobbying for legal actions of the central government to protect river water quality - Protest activities again large-scale developments - Up and downstream exchanges - Water survey - Boycott campaign against artificial detergents - Cleanup of rivers
Yahagi River Riverhead Foundation	1978	Founded by Aichi Prefectural Government and relevant 20 municipalities, it aims at the development of entire watershed through improving water source forests by erosion control and water resources management.
Yahagi River Basin Development Exchange Organization	1991	It was inaugurated by Meiji Irrigation Canal Association and 28 municipalities in Aichi, Gifu and Nagano for the development of entire watershed through implementing projects to foster mutual understanding and exchanges between up- and downstream.

Main features of environmental activities in Yahagi River Basin

- Particularly ones of YRWQCC, are as follows:
  - Aiming at the regeneration of clean Yahagi River, activities for improving water quality have been promoted.
  - A citizen's movement started downstream has grown and gradually involved the upstream.
  - A movement initiated by farmers and fisher folks has gradually involved a wide range of stakeholders including other local organizations, enterprises, and administrations upstream and downstream.

Summary of environmental activities in Yahagi River Basin

- Environmental protection activities in Yahagi River Basin, which was started with the initiatives of local people in a specific area, has successfully involved a wide range of actors and sectors both upstream and downstream.
- It can serve as a useful reference for developing a citizen's watershed organization.
- However, the range of citizen's activities in the basin is not wide when compared with ones of BCs in Shiga, being confined in a slim line along Yahagi River and focused only on water quality protection.
- This is because the movement began as a protest one by suffered farm and fishing people with a definite goal to protect river water quality, and as a result involved no TJCO that is typically conservative and retains a wide variety of needs.

Shimanto River

Originates at Mt. Irazu in Kochi Prefecture and is a relatively large river with a total length of 196 km.

Shimanto River Basin

- The river runs through rural districts in the mountains; there is no large city or industrial center in the watershed. It is a clean river with a gentle slope, richly endowed with nature, and called as “the last clean river in Japan”.
- The total catchment area is 2,270 km^2, of which 391 km^2 are situated in Ehime Prefecture and 1,879 km^2 of 8 municipalities in Kochi.
- Its basin is sparsely populated, in which the total population is only 70,000. This region has fallen behind large-scale development except for some dam constructions. 88 percentage of the catchment area is covered with forests. Vast area of artificial forests has been, however, left as it is due to featureless market of forestry in Japan.
- Major challenges in this area are to sustain industries and livelihood of residents in mountain villages, who take on maintaining forests and preserving nature in the basin.

History of regional development and environmental protection in Shimanto River Basin

Period	Main theme	Description
1st Phase Before and during the war	Small-scale dam constructions (Energy measures)	- Ieji River Dam (1937) - Tuga Dam (1940)
2nd Phase (1950s – high growth era)	Large-scale dam construction plans under Act for Comprehensive Development of the National Land (1950) and Act for Promotion of Electric Power Development (1952)	- National projects for three large-scale dams and water sharing were proposed. - The construction plans was abandoned because of fierce protest movements by village people at the dam sites.

- Conservation activities in Shimanto River Basin started as a protest movement by local people against dam construction plans in the high-growth era.

History of regional development and environmental protection in Shimanto River Basin

Period	Main theme	Description
3rd Phase (1980s – 90s)	A boom of "clean Shimanto River" starts and its protection movement begins	- Japan Broadcasting Corporation (NHK) featured Shimanto River (1983) → Played up frequently by mass media since then, and the river grew popular nationwide. - The Water Town & City National Conference at Shimanto River (1983), in which its major environmental issues (lessening function of forests, gravel extraction, water pollution) were identified. - Renewal of irrigation right on Tuga Dam (1989) → Activization of dam removal movement. - Enactment of Kochi Clean River Protection Ordinance (1989) → Implementing measures for water pollution control. - Nature Conservation Society of Japan pointed out progress in deterioration of the river environment (1990).

- Followed by dam removal movements in the 1980s.

History of regional development and environmental protection in Shimanto River Basin

Period	Main theme	Description
4th Phase (1990s –)	Full-fledged tourist boom comes to Shimanto River	- Outdoor amusement became common → canoeing, playing in the water, camping, nature games - Construction of tourist facilities (hotel, B&B, auto-camping site)
	Promotion of watershed development and environmental conservation with the initiatives of governments	- Riparian municipalities were appointed as priority area for domestic wastewater measures (1991). - Setup of Shimanto River Nature Environment Conservation Promoting Workshop by the prefectural government (1993). - Riparian eight municipalities inaugurated the Shimanto River Comprehensive Conservation Organization (1994). - Establishment of Shimanto River Countermeasures Headquarter by the prefectural government (1995). - The Clean Shimanto River Comprehensive Plan 21 set forth by the prefectural government (1996). - Launch of "Shimanto River Model Forest" study (1997-2006).

- The activities changed in the mid-1990s, and the conservation and development of entire watershed came to be promoted with the initiatives of local governments.
- In March 1996, the "Clean Shimanto River Comprehensive Plan 21" was set forth by the prefectural government as a guideline for the prefectural government and municipalities and enterprises in the catchment area, aiming to develop entire basin in harmony with nature.

History of regional development and environmental protection in Shimanto River Basin

- Although countermeasures to control water pollution had been conducted under Kochi Clean River Protection Ordinance of 1989, those were confined to water quality and not comprehensive enough to protect entire basin environment. Departments and agencies of local governments had carried out respective projects without coordination, or a common understanding or basic policy for Shimanto River. Salvaging the situation, the prefectural government established the Shimanto River Countermeasures Headquarter in 1995, and has conducted a comprehensive policy for the conservation and development of entire watershed.

Period	Main theme	Description
4th Phase (1990s –)	Promotion of watershed development and environmental conservation with the initiatives of governments	- New plan made to preserve sagging bridges in the basin (1988). - Start of "forest certification system" by the prefectural government (1999). - Establishment of Shimanto River Foundation (2000) - Inauguration of the Academy of Shimanto River Basin (2001). - The prefectural government proclaimed "Basic Ordinance for the Conservation and Basin Development of Shimanto River" (2001).
	Growth of Ieji River Dam Removal Movement	A dam removal movement promoted by fisher folks, local people and municipalities.

Shimanto River Basin Citizen Network

http://www.pref.kochi.jp/~shimanto/torikumi_1/network.html

- Recognizing irreplaceable value of Shimanto River and necessity of collaboration, the Shimanto River Basin Citizen Network was inaugurated in 2002 under a philosophy of “a river not as a point but a line; a river basin not as a line but a plane”.
- It consists of 10 municipalities out of 12 riparian ones, 20 local organizations, and 3,500 individual members (as of the end of 2002), and sets forth action goals in an effort to protect the watershed with a common idea.
- The network put up as slogans ”horizontal collaboration between public and private”, “vertical collaboration between upstream and downstream” and “three-dimensional collaboration in time-line”, and has given first priority to cultivating new generation of leaders.

Exchange-type projects

- Today exchange-type projects for regional development are quite strong at Shimanto River.
  - “Shimanto School” project to maintain forests, organize work studies, and develop tourist centers and local specialties
  - “Shimanto Drama” project to do PR activities and direct delivery of the specialties from producing area.
- These efforts attract nation-wide attention as a new methodology to resolve the challenges that are to sustain industries and livelihood of residents in the basin while preserving rich river environment.

Local specialities
http://www.digi-mori.com/dmr/kurashi/shimanto.htm

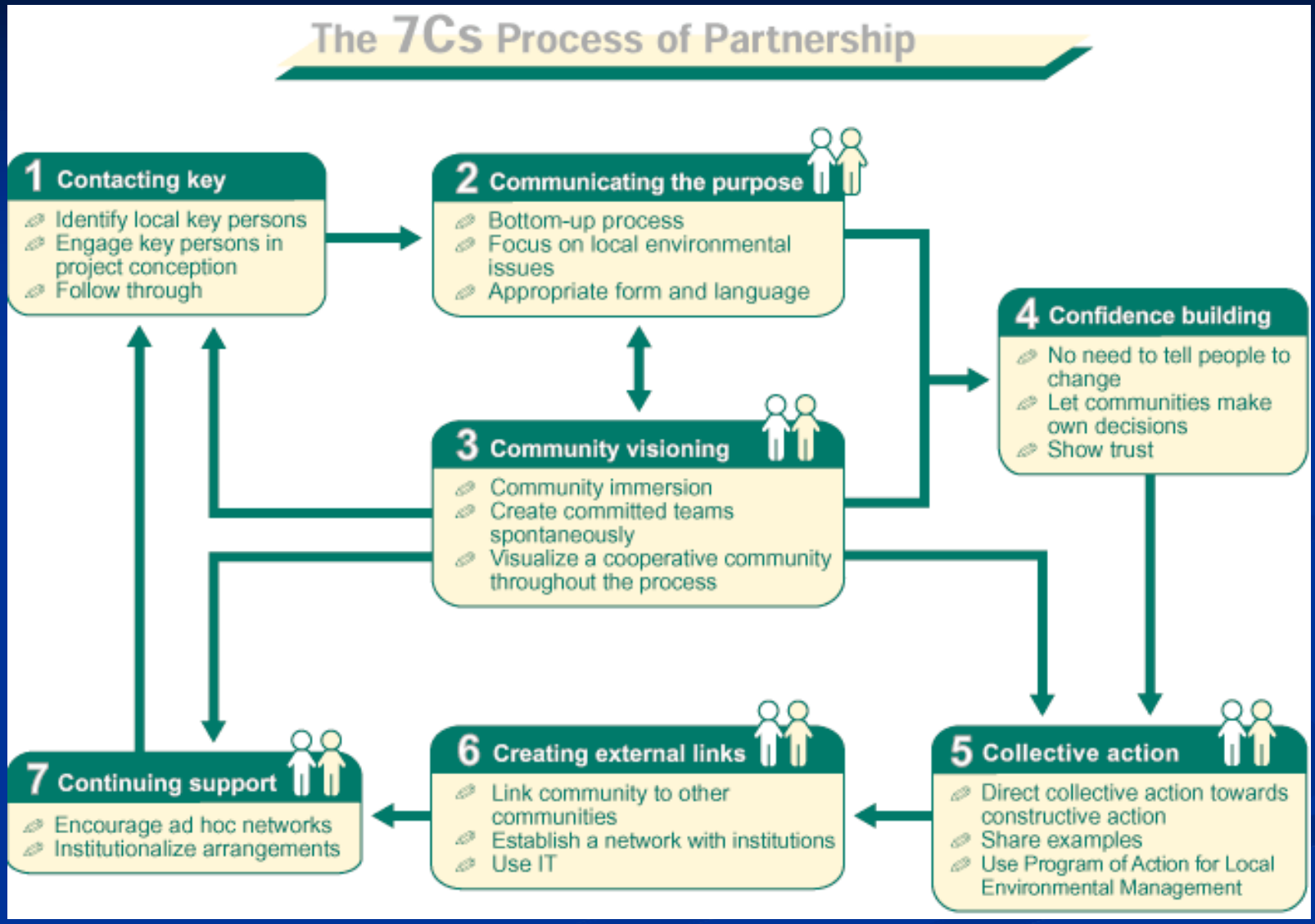
Main features of watershed conservation activities in Shimanto River Basin

- Can be summarized as follows:
  - The activities aim at regional development in harmony with nature through the nature conservation and restoration of watershed.
  - Citizen's movements against dam constructions and for dam removal have built up in people a sense of protecting clean river.
  - The activities shifted from water quality control to comprehensive watershed conservation when local governments took active part in.

Summary of watershed conservation activities in Shimanto River Basin

- Environmental protection movements in Shimanto River Basin started with point ones against dam constructions, gradually grew and involved riparian municipalities, and came to be a line along the river from upstream to downstream, fostering a common idea of local people in the basin.
- Today most of efforts are put into the development of entire catchment area, as a plane, for forest conservation and welfare of the population in the basin. In order to meet various needs of local people, the range of activities are quite wide, and, in this regard, they have a lot of commons with the ones of BCs at Lake Biwa.

7. Tools Available



http://www.unep.or.jp/ietc/publications/integrative/ims5/4.asp

Step 1: Contacting Key Persons

- Identifying and contacting the key persons in target area and communities is a critical first step. These key persons may act in the following steps as process facilitators, relationship brokers or go-betweens, information or knowledge gatekeepers of local organizations and communities, team builders, technical 'fix-it' persons, or group leaders. They are key because they can help lay the foundation of organization early on through their own positive actions.

Step 2: Communicating the Purpose

- Communicating the purpose of basin organization to the key persons, local organizations and communities at large must be thorough and clear. Communication has to be bottom-up by reaching out and interacting with different groups to seek their views. A series of consultations will be needed to attain mutual understanding and acceptance of the purpose. Communicating the purpose can be also done through printed publications, such as a community newsletter or simple leaflets using the vernacular language.

Step 3: Community Visioning

- Visioning a cooperative basin community is essential. It enables communities into becoming a cooperative basin community.

Step 4: Confidence Building

- Many factors influence people's confidence, but without a confident attitude, neither individuals nor groups will be able to move ahead.

Step 5: Collective Action

- Collective action involving local people, organizations and governments is the ultimate demonstration of a cooperative basin community and of a partnership that has been built between citizens and the government.
- Sometimes an environmental crisis can trigger collective action. Collective action can also manifest in various ways — a written petition circulated in the communities, a protest rally, a legal class-action suit, a media blitz for environmental action, a community group's organizing a clean-up drive. It could also be an environmental education campaign through the radio, in the streets, in the schools, or door to door in support of the government's environmental policy.

Step 6: Creating External Links

- Linking a basin community with other basin communities within or outside the country widens a community's horizon and outlook on environment matters. External links can be institutions, persons, or programs.

Step 7: Continuing Support

- Setting up a basin community organization is not a one-off affair with a definite timeline. It is a lifetime commitment. Maintaining the support and cooperation of constituent organizations and government institutions that have committed to protect and conserve the environment and its ecosystems will be very important. For both local governments and local organizations this implies a continuing vigilance over their partnership.

Appendices

Lake Biwa Soap Movement

History of Soap Movement

- Birth of Soap Movement
- Before Red Tide
- Outbreak of Red Tide
- Red Tide Shock
- Toward Ordinance
- Main Features of Movement

Birth of Soap Movement

- 1956: Release of Artificial Detergents (ADs) containing phosphate in Japan Investigation committee on toxicity of artificial detergent, Tokyo (1962)
- Born in the 1970s as a anti-health hazard movement by housewives concerning babies' diaper rash and housewives' eczema
- Individual activities by different citizen groups (1970-1972) 2 women's associations, JCC, 1 co-op
  - Three drops movement
  - Group buying of soap
  - Boycott of AD
  - Health hazard vs. Environmental disruption, Soap vs. Better AD
- Lake Biwa Environmental Conservation Measures (1972)

Before Red Tide

- Headquarter of Lake Biwa Environmental Conservation Measures and Instruction to head of municipality on ADs (1973) as a result of the first outbreak of red tide locally offshore of Hikone
- Oil Shock-Detergent Panic led to the 1st National Convention to oust ADs (1974.11)
- Inauguration of Gov. Takemura (1974.12)
- Liaison Meeting of citizen groups concerned and Symposium on the ouster of ADs with Pref. Gov't (1975)

Outbreak of Red Tide

- May 27, 1977
  - Colored reddish brown, offensive odor, and many fish died
  - Recognition of both victims and victimizers
- Convergence to a lake water quality conservation movement

Red Tide Shock

- Gov's promise to regulate ADs, provided 70% of "yes" (1977.9)
- Advisory Committee for Examining ADs (1977.11)
- Campaign not to buy, not to sell, and not to gift ADs with phosphorus began
- Instruction to head of municipality for promoting soap use (1978.7)
- Association of Residential Activities for Promoting Soap Powder Usage for Lake Biwa (1978.8) with 80 groups "Let's use soap powder, even if it is less convenient!"

Toward Ordinance

- Spread out all over Shiga with strong support by Pref. Gov't
- Subsidy systems for voluntary activity of promotion in disuse of ADs and use of soap (1979.4)
- A series of citizen's forums and Soap use campaign and demonstrations vs. Massive anti-campaign against regulation by detergent manufacturers
- Anti-campaigns against the regulation of ADs by detergent manufacturers
- Enactment of Eutrophication Control Ordinance (1979.10)

Eutrophication Control Ordinance (1979)

- Prohibits Use, Sale and Gift of ADs containing phosphate
- First N & P standards for industrial effluent in the world
- Guidelines for controlling point and non-point sources of N & P

Led to the revision of Water Pollution Control Law in 1985 and enactment of a Special Law for Lake Water Quality Conservation in 1984

Additional Environmental Standards on Water Quality for Living Conditions (1982)

Lake	I/II/III/IV/V	T-N	T-P
Biwa	II	<= 0.2 mg/*l*	<= 0.01 mg/*l*

Main Features of Movement

Promoting use of Powdered Soap (1980)

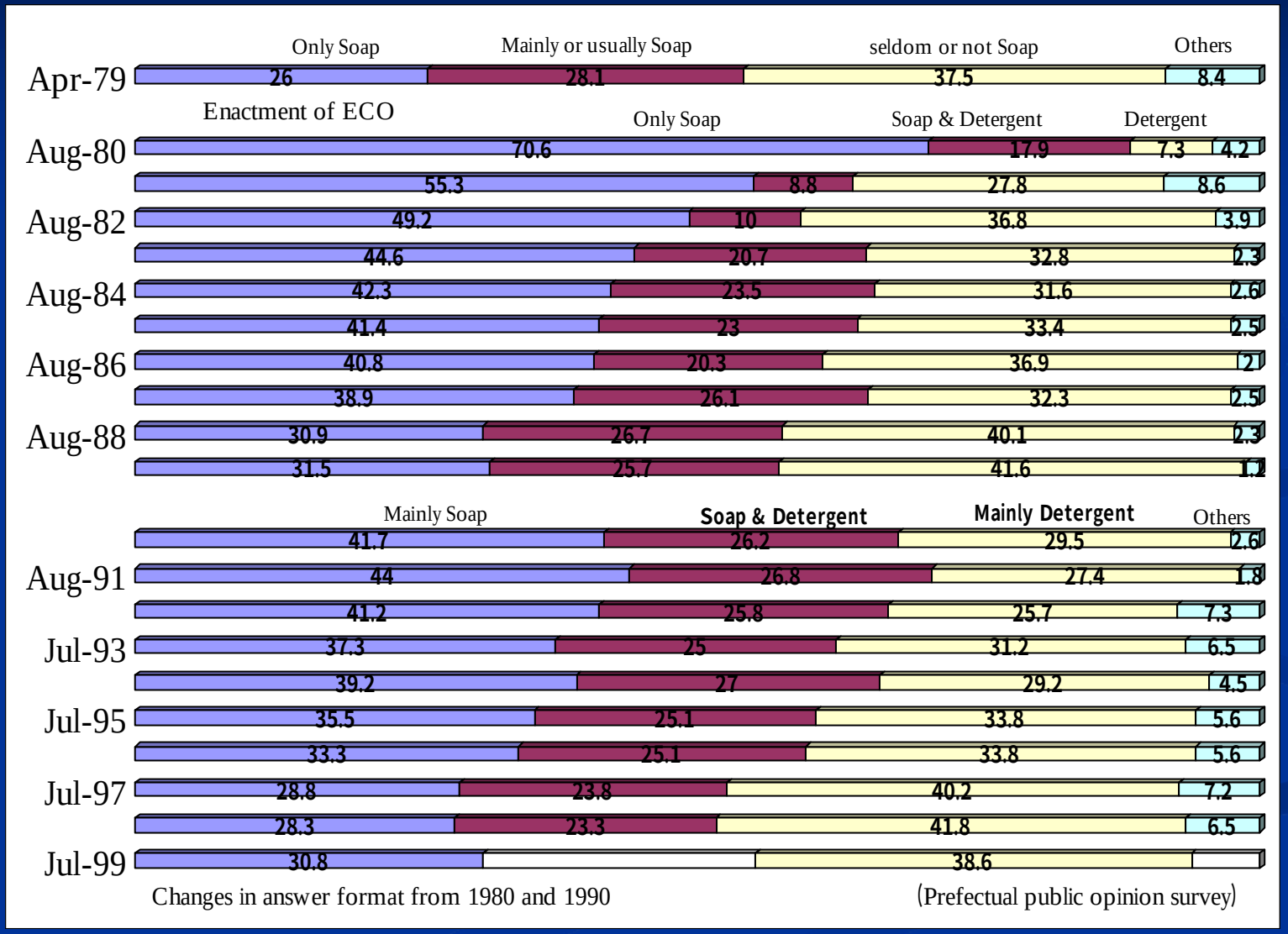
- Housewives' movement
- Post antipollution movement
- Changed environmental policy
- Promoted women's participation in the society

Giving birth to Lake Biwa Research Institute (1982) and Floating School (1983), and 1st World Lake Conference in Otsu (1984)

But…

Advent of synthetic detergent without phosphate led to the end of the movement

Usage Rate of Soap in Shiga (%)



Post Soap Movement

-- History of Citizens' Movement --

- **Environmental Cooperatives (1990)**
- **Fire-fly Monitoring (1990s)**

Dancing Fire Flies

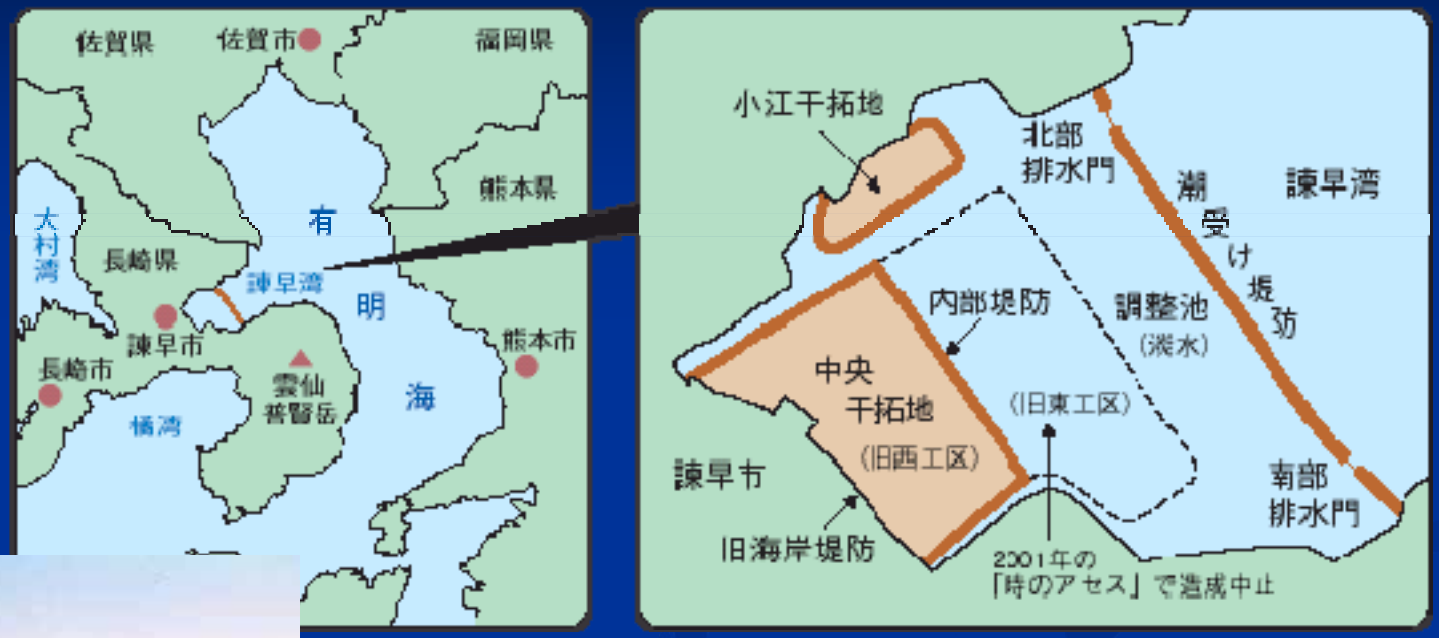
- **Ohmi (Shiga) Network Center (1997)**
- **Birth of Watershed Organizations**
  - Akanoi-Biwako Environmental Citizens' Initiative (1996)
- **Issues facing watershed organizations**

Other water environmental protection movements in Japan

Isahaya Bay

Isahaya Bay is situated at the innermost of west Ariake-Kai. With the maximum tidal range of 6 to 7 m, the largest tidal flat (3,337 ha) in Japan has developed in the bay, providing rich fishing grounds and ecosystems. However, the bay was shut up by a reclamation project in 1997. As a result, the tidal flat has dried up and rich ecosystems has gone. The protection of Isahaya Bay has been a symbol of water environmental protection movement in Japan.

Isahaya Bay Reclamation Project



1989 Construction work started.
1997 The sea wall was closed.
2004 Provisional injunction to stop the construction by a district court

The sea wall of 7 km shutting up 3,550 ha of Isahaya Bay.

History of Isahaya Bay Reclamation Project (1)

Year	Event
1952	Nagasaki Large Reclamation Plan (NLRP: 10,094 ha)
1954	Ariake-kai Regional Comprehensive Development Plan (170,000 ha) 1969 aborted.
1964	The execution plan of NLRP was completed.
1965	Anti-NLRP committee was set up by fishermen‘s cooperatives
1970	NLRP aborted. → Restart as Nakasaki South Regional Comprehensive Development Plan (NSRCDP: 10,094 ha) for water resources development → 1973 halted.
1975	NSRCDP resumed.
1977	Anti-NSRCDP Association was set up by fishermen‘s cooperatives in Saga, Kumamoto and Fukuoka Prefecture.
1983	NSRCDP switched to Isahaya Bay Reclamation Project (IBRP: 3,550 ha) for disaster prevention.
1989	The construction of IBRP started.
1996	“Mudskipper lawsuit” was piled for suspension of reclamation construction.
1997	April – The sea wall was closed. October – 300,000 signatures demanding the sea wall open.
2004	Acknowledging fishery damages, Saga District Court determined a provisional injunction to stop the construction.

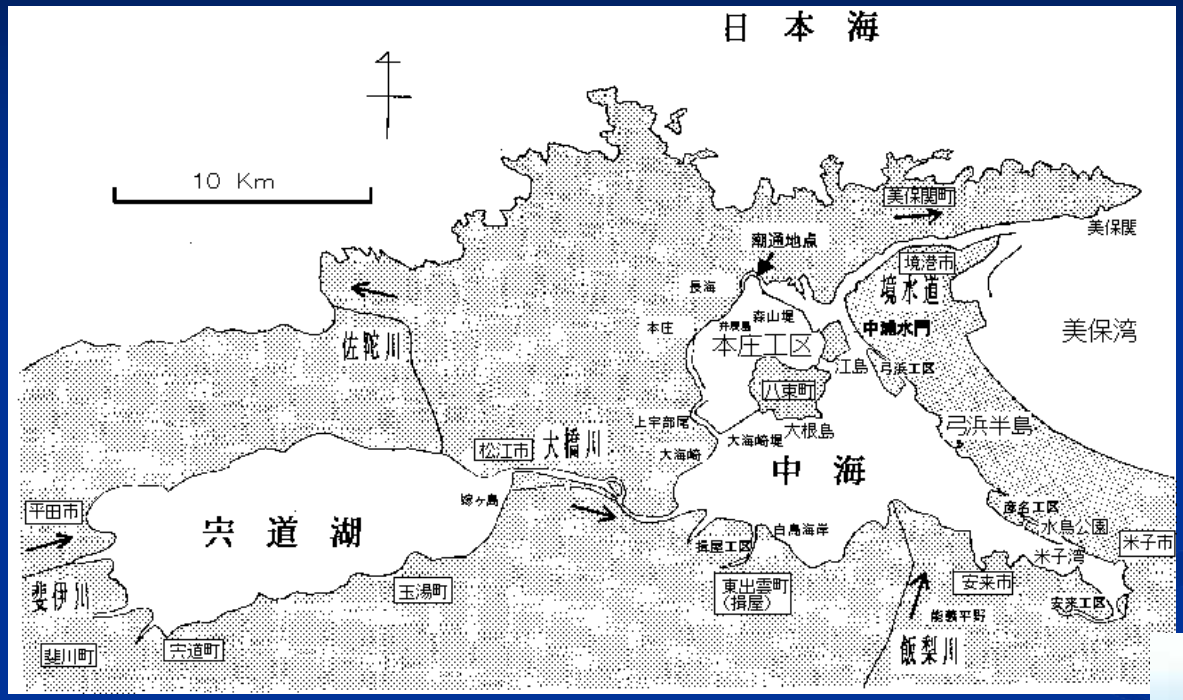
History of Isahaya Bay Reclamation Project (2)

Year	Event
2005	Fukuoka High Court ruled in favor of the appeal by the government, and turned down the provisional injunction by Saga District Court in 2004. The construction resumed, 94% of which has been completed.
2006	Another lawsuit against the government was piled by Fukuoka Ariake-kai Fishery Cooperation, demanding an open-gate research to determine the cause of poor fish catch.

Nakaumi-Shinji-ko

Nakaumi and Shinji-ko are fifth and sixth largest lakes in Japan, respectively. The lakes are paradises for wild birds as well as rich freshwater fishery grounds for common fresh water clam.

Nakaumi-Shinji-ko Desalination Project



http://vege1.kan.ynu.ac.jp/nakaumi/map/chizu.gif

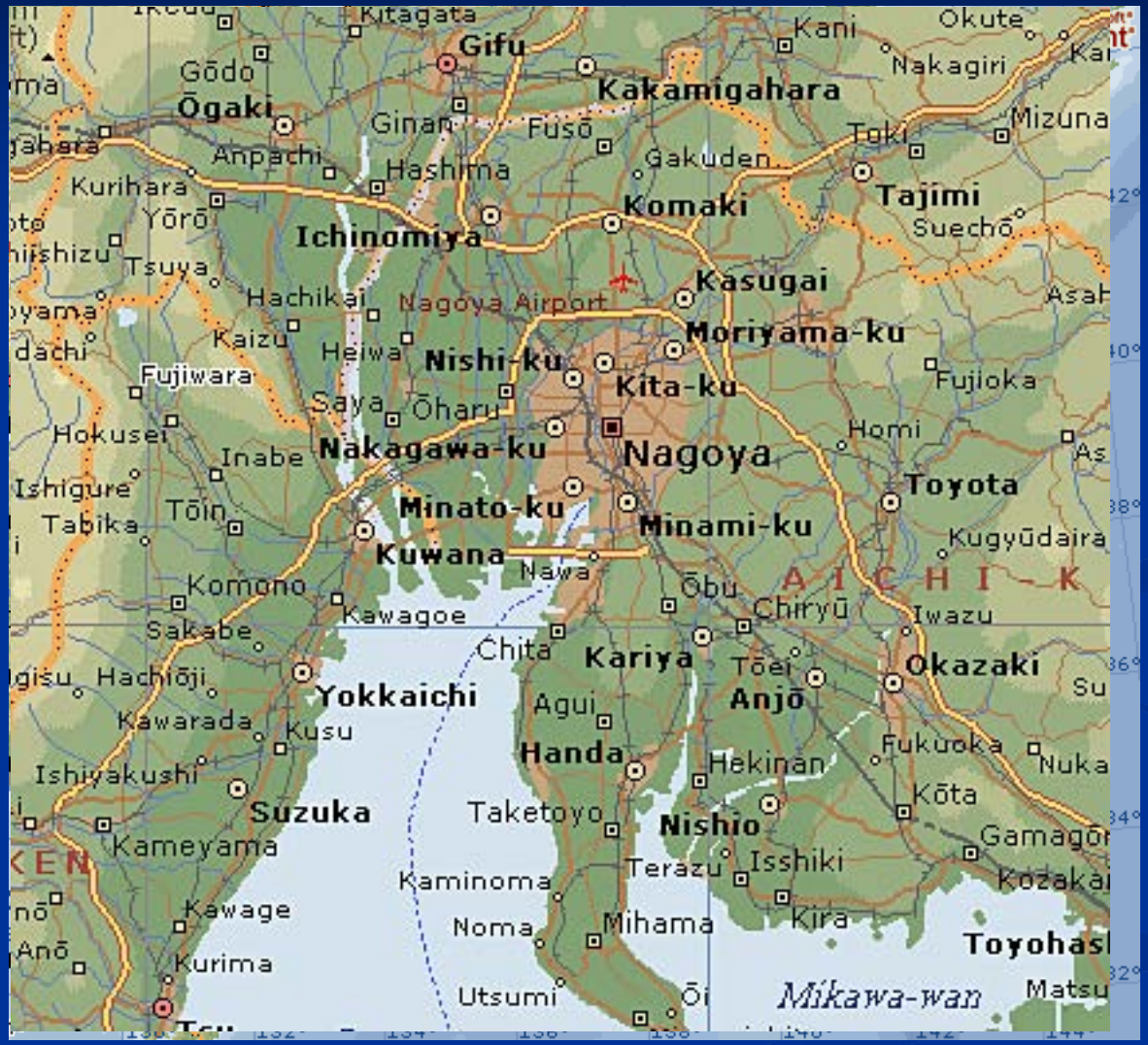
Honjho Construction Site occupying one-fifth of Nakaumi.

http://www.chugoku-np.co.jp/nakaumi/

History of Nakaumi-Shinji-ko Desalination Project

Year	Event
1963	Nakaumi National Reclamation & Desalination Project (NNRDP: 2,541 ha) started.
1969	Reclamation of Honjho Construction Site (1,689 ha) started.
1970	Nation policy of reducing rice acreage started.
1981	The levee of Honjho Construction Site was completed and closed.
1985	320,000 signatures against the desalination project.
1988	Governor of Shimane Prefecture committed the extension of desalination.
1996	Governor made a proposal for restart of reclamation. → 540,000 signatures against the reclamation.
2000	Governor expressed the freeze of project. Farm Ministry determined the abortion of reclamation.
2002	Governor committed the abortion of desalination.

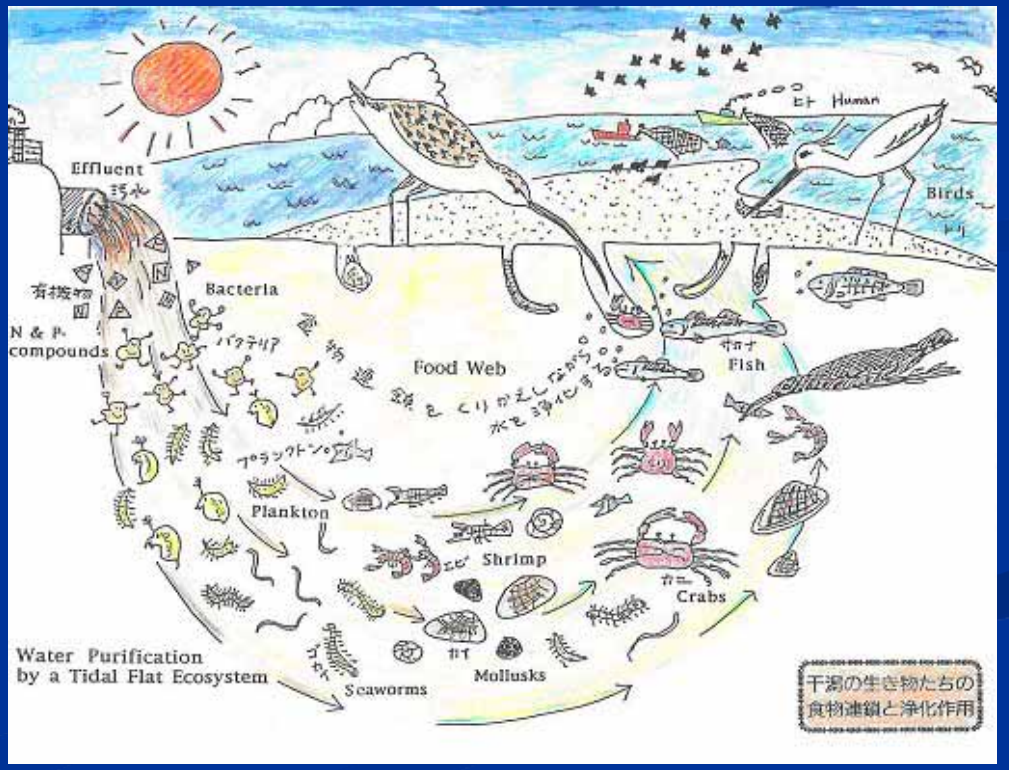
Fujimae Tidal Flat



Fujimae is a tidal flat of 89 ha, which was left behind from large landfill construction around Nagoya Harbor. It is well known internationally as a rally point of migratory birds including snipe.

Fujimae Tidal Flat

http://www.fujimae.org/



History of Fujimae Tidal Flat

Year	Event
1981	Fujimae became a candidate site for waste disposal.
1994	Nagoya City started EIA on landfill of Fujimae.
1996	The first EIA made available for public inspection. It underestimated the impact of project.
1997	Additional investigation on birds and benthos was conducted for EIA. Environment Agency committed to reserve Fujimae.
1998	Nagoya City EIA made available for public inspection. → Environment Agency criticized the EIA.
1999	Nigoya City abandoned landfill plan of Fujimae. City declared emergency situation for wastes and planed to reduce wastes in 2000 less than 800,000 tons that is 80% of 1998.
2002	Solid waste of Nagoya City became 760,000 tons in 2001. Fujimae was registered as Ramsar Convention wetland.

Yoshino River Dai-Jyu-Zeki

Dai-Jyu-Zeki is a weir constructed in 1752 at 14.2 km upstream from the mouth of Yoshino River. It is a two-stage weir, which upstream one is 1,250 m and downstream one 550 m.

Yoshino River Dai-Jyu-Zeki

http://fenv.jp/gallery/index/yoshiogawa.htm

http://www.skr.mlit.go.jp/kasen/shikoku_kasen/data/yoshino/point/jyu.html

History of Yoshino River Dai-Jyu-Zeki Movable Weir Issue

Year	Event
1982	Ministry of Construction committed the necessity of renovation of Dai-Jyu-Zeki.
1988	Ministry of Construction started investigation for execution plan of movable weir.
1992	Ministry of Construction determined the location of movable weir.
1998	Dai-Jyu-Zeki Deliberation Council concluded that movable weir construction was appropriate.
1998	A citizen group started signature-collecting campaign demanding local referendum.
1999	Number of valid signature became 316,003. Implementation of local referendum is determined.
2000	Local referendum was carried out. Voting rate is 55.00%. Votes against movable weir occupied 91.6%. → Movable weir plan went back to the drawing board.