



Transition and Efforts of River Restoration

Old Naka River, Japan



Before (70's)



Urban River Restoration

- ✓ Landscape
- ✓ Amenity
- ✓ Nature
- ✓ Ecosystem

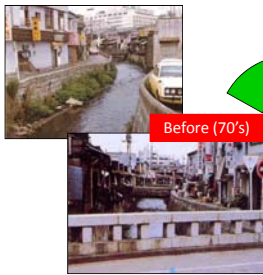
13th International Riversymposium

Transition and Efforts of River Restoration


Kama River, Japan

Urban River Restoration

- ✓ Water quality
- ✓ Landscape
- ✓ Amenity



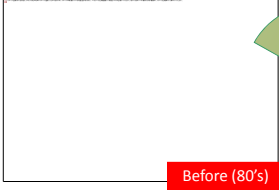
Before (70's)




13th International Riversymposium

Transition and Efforts of River Restoration

Izumi River, Japan



Before (80's)



Town River Restoration

- ✓ Landscape
- ✓ Amenity
- ✓ Nature
- ✓ Ecosystem

13th International Riversymposium

Transition and Efforts of River Restoration

Moizari River, Japan



Before (90's)




Town River Restoration

- ✓ Landscape
- ✓ Amenity
- ✓ Nature
- ✓ Ecosystem


13th International Riversymposium

Transition and Efforts of River Restoration

Murasaki River, Japan



Before (60's)



Town River Restoration

- ✓ Landscape
- ✓ Amenity

13th International Riversymposium

Transition and Efforts of River Restoration

Transition of policy or events for river environment (Japan)

Year	Items	Contents
1958	Beginning of survey of water quality	Improvement for water contamination
1965	Establishment of procedures of occupancy of the river zone	Ensuring of open spaces
1981	Establishment of general plans for rivers and watersheds environment management	Improvement of hydrophilic nature
1990	Beginning of Nature-Oriented River work	Focusing on ecosystems
1995	National Biodiversity Strategy has started	Focusing on biodiversity
1997	Amendment to River Law	Concern about environment issue
2002	Natural Restoration Project has started	Requesting of nature regeneration
2003	Natural Restoration Law	Concern about natural restoration
2006	Amendment to Nature-Oriented River work	Focusing on ecosystems and human
2007	Review of 10-year river environment policy	Focusing on policy review
2008	Amendment to middle/small-sized river work standard	Concern about environment issue

13th International Riversymposium

Transition and Efforts of River Restoration

Historical solution for river environment restoration (Japan)
(Main Target)

- 1950's ✓ Continuous survey of water quality
- 1960's ✓ Developing sewerage systems and WTP
- 1980's ✓ Promotion of accessibility between rivers and urban
- 1990's ✓ Improvement of urban landscaping, riverfront amenities
- 1990's ✓ Regeneration project of nature, ecosystem
- 2000's ✓ Improvement of relationship between river and human, community and nature

Water quality
Landscape, Amenities
Nature, Ecosystem
Human and Community

ARRN Asian River Restoration Network

13th International Riversymposium

Transition and Efforts of River Restoration

Cheonggyecheon, Korea

Before

Urban River Restoration

- ✓ Landscape
- ✓ Amenity
- ✓ Nature
- ✓ Ecosystem

ARRN Asian River Restoration Network

13th International Riversymposium

Transition and Efforts of River Restoration

Yangje River, Korea

Before(90's)

Urban River Restoration

- ✓ Water quality
- ✓ Nature
- ✓ Ecosystem

ARRN Asian River Restoration Network

13th International Riversymposium

Transition and Efforts of River Restoration

Osan River, Korea

Before(90's)

Urban River Restoration

- ✓ Amenity
- ✓ Nature
- ✓ Ecosystem

ARRN Asian River Restoration Network

13th International Riversymposium

Transition and Efforts of River Restoration

Yangtze River, China

Before (1990's)

Urban River Restoration

- ✓ Landscape
- ✓ Amenity

ARRN Asian River Restoration Network

13th International Riversymposium

Transition and Efforts of River Restoration

Zhuanhe River, China

Before

Urban River Restoration

- ✓ Water quality
- ✓ Landscape
- ✓ Amenity
- ✓ Nature

ARRN Asian River Restoration Network

13th International Riversymposium

Transition and Efforts of River Restoration

Love River, Taiwan

Urban River Restoration

- ✓ Water quality
- ✓ Landscape
- ✓ Amenity
- ✓ Nature

Before (1980's)

13th International Riversymposium

Outline of Asian River Restoration Network

Measures to promote River Restoration in Asia

Summary of Discussion in the Session on 4th World Water Forum (2006)

1. River restoration is of vital importance to socio-economic sustainable development in parallel with flood and water use management.
2. Basin is a basic unit for river environment management.
3. Establishing suitable methodological technology for river restoration that suit for Asian monsoon region is necessary.
4. In Asia monsoon region, human-influence to a cultural landscape is harmonized with the ecosystem traditionally.
5. It is important to **develop a database of projects and knowledge of international experts in river restoration**, and this activity should be supported by engineers, scientists, ecologists, managers and public.
6. It is urgent to establish a **river restoration guideline suitable for the Asian monsoon region** for countries with similar social and natural conditions.

Asian River Restoration Network (ARRN) , Nov. 2006

13th International Riversymposium

Outline of Asian River Restoration Network

Organization Structure

ARRN chairperson:
Prof. Nobuyuki TAMAI (IAHR President)

KRRN: Korea River Restoration Network
<http://www.krrn.net/>
[Secretariat] Korea River Association (KRA)
<http://www.riverlove.or.kr/>

CRRN: China River Restoration Network
<http://www.crrn.cn/>
[Secretariat] Institute of Water Resources and Hydropower Research (IWHR)
<http://www.iwhr.com/english.asp>

JRRN: Japan River Restoration Network
<http://www.a-rr.net/jp/>
[Secretariat] Foundation for Riverfront Improvement and Restoration (RFC)
<http://www.rfc.or.jp/english/>

ARRN is organized with cooperation of national networks "River Restoration Network (RRN)" in each participating countries/regions, Non-RRN members and secretariat.

13th International Riversymposium

Outline of Asian River Restoration Network

Outline of ARRN Activities

- 1) Website
- 2) Newsletter and News-mail
- 3) International Forum and Regional Workshop
- 4) Preparing Guideline for River Restoration

13th International Riversymposium

Outline of Asian River Restoration Network

Major Activities (website)

ARRN website (<http://www.a-rr.net/>)

KRRN website (under construction)

JRRN website (<http://www.a-rr.net/jp/en/>)

13th International Riversymposium

Outline of Asian River Restoration Network

Major Activities (Newsletter / Newsmail etc.)

ARRN Newsletter

ARRN Annual Report

JRRN Newsletter

13th International Riversymposium

Outline of Asian River Restoration Network

Major Activities (International Forum and Workshop)



The 3rd International Forum on Waterfront and Watershed Restoration (Nov.2006, Tokyo)

The 5th International Forum on Waterfront and Watershed Restoration (Nov.2008, Beijing)

ARRN / IAHR Joint Seminar on Ecohydraulics and Environmental Hydraulics (Sep.2008, Tokyo)

ARRN's open Roundtable Meeting on how to share river restoration knowledge (Sep.2010, Seoul)

13th International Riversymposium

Outline of Asian River Restoration Network

Major Activities (Guideline for River Restoration)

- ✓ARRN is currently preparing a system that allows access to these existing guidelines on the website.
- ✓ARRN published "Reference Guideline for Restoration by Eco-Compatible Approach in River Basin ver.1" in March 2009 and distributed it in the 5th WWF. ARRn continues to update the guideline for the 6th WWF.



Guideline Database

ARRN Guideline ver.1 (Mar. 2009)

ARRN Guideline ver.1 Case studies (Sep. 2010)

13th International Riversymposium

Outline of Asian River Restoration Network

Major Activities (Technical Training)



13th International Riversymposium

ARRN's Future Development

- (1) To establish the platform for information sharing in order to achieve more efficient information exchange among the ARRn members
- (2) To compile the advanced cases of river restoration in Asia for the increased information volume and technical strength in order to contribute to the further improvement of the ARRn members' technical level
- (3) To develop a reference guideline for river restoration in Asia, while continuously collecting the available existing guidelines relevant to river restoration
- (4) To provide opportunities such as international forum, workshop and seminar, in which members can interact directly with each other and exchange information
- (5) To exchange with related international networks/organizations learn and share useful knowledge and lessons for sustainable network activity

13th International Riversymposium

