

The Asian River Restoration Network (ARRN) is an Asian-based non-political network supporting the exchange of information related to environmental restoration of rivers and watersheds, through the promotion of collaboration between participants of the world. The network aims to contribute to the development of technology and knowledge for environmental restoration through its activities.

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ARRN Event News

Report on participation in the Fifth World Water Forum (March 2009, Istanbul, Turkey)

From March 16 to March 22, the Fifth World Water Forum was held in Istanbul, Turkey under the theme of "Bridging Divides for Water." More than 30,000 people from over 150 countries concerned about water gathered together. They discussed various solutions for water problems at more than 100 sessions.



Venue

change, and adaptation methods for water management, with the theme of Climate Change and Water Problems. This forum focused on Global Warming. However, here we report on the forum from the viewpoints of the Natural Environment, Ecosystems, and River Restoration.



Opening ceremony

Partly in view of the fact that ARRN was established based on the recommendation of a special session co-hosted by Japan, China, and Korea in the last Fourth World Water Forum (March 2006, Mexico), two members of the ARRN Secretariat took part in the forum to do PR for ARRN for other participants, give opinions, and promote the "Reference Guideline for River Restoration ver.1" published by ARRN. One of the characteristics of this forum was that participants actively discussed global change including water disasters caused by climate

■ Sessions concerning river restoration

This forum consisted of the following six themes and special sessions.

- Global Change and Risk Management
- Advancing the Human Development and the MDGs
- Managing and Protecting Water Resources
- Governance and Management
- Finance
- Education, Knowledge and Capacity Development



Session3.1.1 Ecosystems for water, Water for People, Ecosystem for People

In the forum, there were sessions concerning river restoration that dealt with navigation, ecosystem conservation, and trans-boundary river management. In each lecture and discussion, the participants energetically discussed Climate Change Issues, which are now receiving the attention of the entire world, how they relate to individual problems, and how to solve them.



Session3.1.3 How can cooperation over trans-boundary surface and groundwater resources be achieved in a sustainable and equitable manner?

■ World Water EXPO

World Water EXPO was held on the same site on the same day as the Fifth World Water Forum. There were exhibitions that introduced the water-related efforts of many countries and international organizations.

Each country showed its originality in the content and method of its exhibition. In particular, the exhibitions of Turkey (the host country), Holland, and Portugal, which showed good teamwork as national efforts - not exhibitions compartmentalized by organizations - seemed to attract much of the participants' attention.

Regarding the themes of these exhibitions, many of them dealt with technology and products (e.g. water supply and sewage, purification technology, etc.). It is characteristic that many panels handled the issue of Climate Change, which was a central topic of this Water Forum. On the other hand, there were few exhibitions on river environments and ecosystems. Under such circumstances, exhibitions on the Korean government's "Eco-river 21 Project" and river environmental restoration by Incheon City and a local NGO in the Korea Pavilion, and the introduction of ecological restoration projects in the China Pavilion, were particularly outstanding.



Korea pavilion



China pavilion



Japan pavilion

■ Information Exchange with the ECRR President

On Monday, March 16, 2009, we exchanged information and opinions about future collaboration with ECRR and the activities of ARRN with Mr. Bart Fokkens, President of ECRR, which is a model organization of ARRN.

This meeting was held at the site of the Fifth World Water Forum, when the ECRR President and ARRN/JRRN Secretary General participated in the forum. The discussion was constructive. We hope to start with possible efforts in cooperation between Europe and Asia, including both parties' participation in workshops and contribution to database construction.



ARRN delegate with President of ECRR

“6th ARRN International Forum on Waterfront and Watershed Restoration” will be held in Seoul, Korea (end of September, 2009)

6th ARRN International Forum will be held on September 29th, 2009 in Seoul KOREA.
Detailed information will be appeared on ARRN website soon.

URL: <http://www.a-r-r.net/jp/en/arnn/letter/index.html>

As a reference, summary of past forums are arranged below.

(1) 1st International Forum on Waterfront and Watershed Restoration (19 Jan. 2005, Tokyo JAPAN)

-Lecture 1: Dr. KIM, Sung, Korea
Hydrological Aspects of the Cheonggyecheon Restoration Project in Korea

-Lecture 2: Mr. Yap Kheng Guan & Mr. Cheng Hsing Yao, Singapore
Clean up and beautification of Urban Rivers : Singapore's experience

-Lecture 3: Dr. Hua Ming , China
Introduction of Suzhou Creek Rehabilitation Project

-Lecture 4: Dr. C Ronald Franks, USA
The Road to Bay Restoration

-Lecture 5: Mr. Mark Turner, UK
A partnership approach to catchment wide river restoration: the Mersey Basin Campaign experience

-Lecture 6: Ms. Ute Menke, Netherlands
European Centre for River Restoration-for a sustainable balance between ecology, economy and culture



(2) 2nd International Forum on Waterfront and Watershed Restoration (27 Oct. 2005, Tokyo JAPAN)

-Lecture 1: Dr. Jiang TieBing, China
The Hankou Riverfront comprehensive flood-prevention and environment-improvement and restoration project

-Lecture 2: Dr. Bingle H. B.Gutierrez, Philippines
The Pasig River Rehabilitation Master Plan

-Lecture 3: Mr. Paul A. Warner, USA
Comprehensive Everglades Restoration Program

-Lecture 4: Mr. Giuseppe Dodaro, Italy
Problems and perspectives of river restoration in Italy: the experience of the Italian Centre for River Restoration

-Lecture 5: Mr. Faizal Parish, Malaysia
The River Basin Initiative: Experience in River Restoration from Malaysia and Indonesia

-Lecture 6: Dr. Hong-Kyu Ahn, Korea
A River Restoration Example from Korea



(3) 3rd International Forum on Waterfront and Watershed Restoration & ARRN Establishment Ceremony (9 Nov. 2006, Tokyo JAPAN)

Session I: Introduction of international networks related to water

-Lecture 1: Mr. Jukka Jormola, ECRR
Current activities of Europe's information exchange networks and river policies

-Lecture 2: Dr. Atsushi Suzuki, INWEPF
River Restoration in International Network for Water and Ecosystem in Paddy Fields

-Lecture 3: Dr. Kazuo Kera, IFNet
Outline of the Global Flood Alert System

-Lecture 4: Mr. Hiroyuki Sindo, NARBO
Outline of the activities of NARBO (Network of Asian River Basin Organizations)

-Lecture 5: Ms. Taeko Yokota, APWF
Outline of the Asia-Pacific Water Forum

Session II: Case Study on River Restoration

-Lecture 1: Mr. Jukka Jormola, Finland
Current activities of Europe's information exchange networks and river policies

-Lecture 2: Dr. Wen Gen Liao, China
The On-going Eco-hydrological and Eco-hydraulic Research Programs for Improvement of Three Gorges Reservoir Operation

-Lecture 3: Dr. Chang Wan Kim, Korea
River Restoration in Korea

-Lecture 4: Mr. Masanao Harada, Japan
River Restoration in Japan

-Lecture 5: Ir. Weng Keong Cho, Malaysia
River Restoration in Malaysia



(4) 4th International Forum on Waterfront and Watershed Restoration (30 Nov. 2007, Tokyo JAPAN)

-Lecture 1: Mr. Shuuichi Nagashima, Japan
River Rehabilitation with a focus on the Sumida River

-Lecture 2: Mr. Sukhyun Kim, Korea
River Restoration Projects in Korea

-Lecture 3: Dr. Wen Gen Liao, China
The Eco-hydrological Studies on The "Four Major Chinese Carps" Spawning Habitat Restoration for Yangtze River

-Lecture 4: Mr. Surapol Pattanee, Thailand
National Policy on Water Resources Restoration in Thailand

-Lecture 5: Mr. Martin Janes, UK
Current activities of Europe's information exchange networks and river policies



(5) 5th International Forum on Waterfront and Watershed Restoration (4 Nov. 2008, Beijing CHINA)

-Lecture 1: Dr. Chang Wan Kim, Korea
Correlation between Biotic Factors and Abiotic Factors - Focused on the Case Streams in Gyeonggi District, Korea

-Lecture 2: Prof. Yuji Toda, Japan
Development of Eco-compatible River Basin Management toward Nature Restoration - Case of Ise Bay River Basin -

-Lecture 3: Prof. Dong Zheren, China
Theories and Practices of River Restoration

-Lecture 4: Prof. Wang Zhaoyin, China
River Training and Restoration

-Lecture 5: Prof. Chang Jianbo, China
Ecological Requirements in Operation of the Three Gorges Project



Report from ARRN Board

ARRN Governing Council member (as of July 2009)

Chairperson of ARRN:

Prof. Nobuyuki Tamai
Kanazawa Gakuin Univ., President of International Association of Hydraulic Engineering Research (IAHR)

Secretary General of ARRN:

Dr. Junzo Sago, Foundation for Riverfront Improvement and Restoration JAPAN (RFC)

KRRN(Korea River Restoration Network):

(Secretariat organization)
Korea River Association (KRA)
(Secretary General)
Dr. Changwan Kim, Korea Institute of Construction Technology (KICT)
(Information Committee)
Prof. Jeong Seok Yang, Kookmin Univ.
(Technical Committee)
Mr. Ji Won Lee, Korea Engineering consultants Corp.

CRRN(China River Restoration Network):

(Secretariat organization)
Institute of Water Resources and Hydropower Research (IWHR)
(Secretary General)
Prof. Dongya Sun, Institute of Water Resources and Hydropower Research (IWHR)
(Information Committee)
Prof. Wengen Liao & Dr. Chong Li, Institute of Water Resources and Hydropower Research (IWHR)
(Technical Committee)
Prof. Hao Wang & Prof. Kewang Tang, Institute of Water Resources and Hydropower Research (IWHR)

JRRN(Japan River Restoration Network):

(Secretariat organization)
Foundation for Riverfront Improvement and Restoration (RFC)
(Secretary General)
Dr. Junzo Sago, Foundation for Riverfront Improvement and Restoration (RFC)
(Information Committee)
Dr. Kazumasa Ito, Foundation for Riverfront Improvement and Restoration (RFC)
(Technical Committee)
Dr. Naoki Shirakawa, Tsukuba Univ.

Note) JRRN has a role of ARRN secretariat currently.

2nd ARRN Information & Technical Committee will be held on 17 August in Korea

Action plan of ARRN, means to exchange technical information on river restoration among ARRN members, how to facilitate each country's network (RRN) etc. will be discussed.

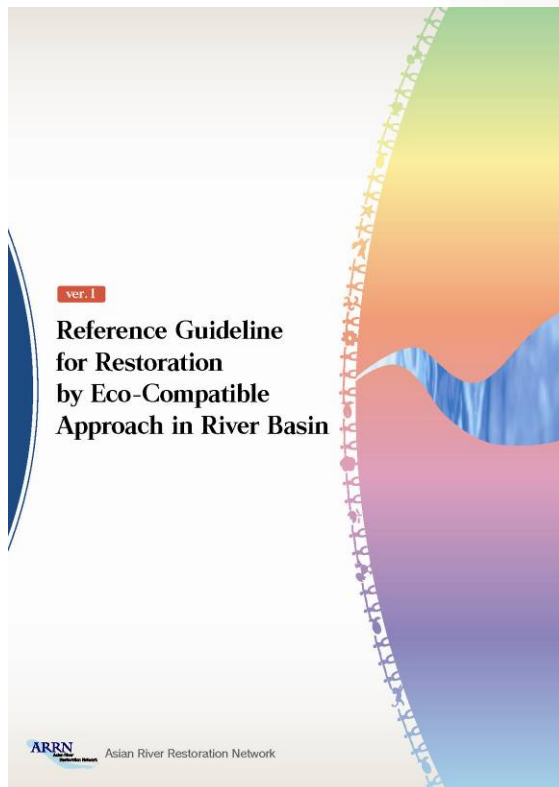
4th ARRN Governing Council Meeting will be held on 30 September in Korea

Based on the output of 2nd Information & Technical Committee Meeting, Action plan and organization framework for ARRN future activity will be discussed in the meeting.

Research Activity

“Reference Guideline for Restoration by Eco-Compatible Approach in River Basin ver.1” was completed in March 2009

Taking the advice of ARRN Technical Committee, ARRN prepared a “Reference Guideline for Restoration by Eco-Compatible Approach in River Basin ver.1” and published it in March 2009.



Reference Guideline for Restoration by Eco-Compatible Approach in River Basin ver.1

This guideline was written as an introductory book to the Technical Guideline for River Restoration in Asia which ARRN is going to establish, so that non-specialists could also understand the significance of river restoration and its approaches. The reference guideline mainly contains photos and figures with simple comments added.

The contents are as follows. The guideline begins with “Why river restoration?” The structure of the guideline facilitates general understanding of specific measures to restore river environments. Indeed, it was difficult to cover everything about river environmental restoration in 28 pages. However, we hope that the book will be useful as the first guideline written by ARRN.

ver.1

Reference Guideline for Restoration by Eco-Compatible Approach in River Basin

Chapter 1. Introduction

(1) Why restore the river environment ?	1
(2) Aim and purpose of the guideline	2
(3) Target audience	2
(4) Overview of guideline	3

Chapter 2. Important viewpoints in understanding the nature of rivers

(1) Being familiar with the natural, historical and cultural transition of rivers	4
(2) Perceiving the river as a basin	5
(3) Understanding dynamism of rivers	6
(4) Grasping the role of rivers and stakeholders	7

Chapter 3. Basic items to remember in restoring river environment

(1) Setting multi-objectives of river restoration by considering river history and culture	8
(2) Planning river restoration from the viewpoint of the basin	9
(3) Considering river restoration based on dynamism of rivers	10
(4) Proceeding with river restoration in cooperation with stakeholders	11
(5) Considering a combination of river conservation and restoration	12

Chapter 4. Implementation approaches for river environment restoration

(1) Outline of approaches for river environment restoration	13
(2) Survey and research to clarify the nature of rivers	14
(3) Creating awareness among residents in the basin	16
(4) Building consensus for sustainable activities	18
(5) Securing healthy water quality and quantity	19
(6) Creating a lively waterfront and water amenity space	21
(7) Restoration of nature and eco-compatible river	23

Appendix Countermeasure Chart for River Restoration (draft)

In addition, we attached “Appendix 1. Countermeasure Chart for River Restoration” at the end of the guideline. This shows the future direction of this guideline, and serves as a foundation to explain river environmental restoration in a more profound manner. We will continue to enhance the contents of the guideline mainly with the support of ARRN Technical Committee members.

If you would like to receive this guideline, please visit to ARRN website in detail.

URL: <http://www.a-r-r.net/jp/en/arm/letter/publication/>

Special Topics

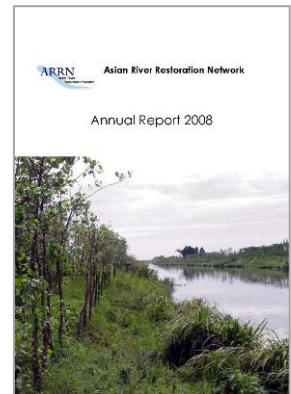
ARRN Annual Report 2008" was published

"ARRN Annual Report 2008" has been published. Major activities by ARRN and National Networks (CRRN, KRRN and JRRN) in 2008 are introduced in this report.

<Contents>

- Message from Chairperson and Secretary Generals of National RRN
- About ARRN
- Main Activities in 2008
- Activity Reports of National Networks in 2008
- Organizational Structure and Members

Download URL: http://www.a-r.net/jp/en/arn/letter/annual_report/



ARRN will hold a special session in the 8th International Symposium on Ecohydraulics 2010 (September 12-16, 2010 Seoul, Korea)

The 8th International Symposium on Ecohydraulics (ISE2010) will be held in Seoul during Sept 12-16, 2010. The symposium is a specialist conference organized by the Ecohydraulics Section of the International Association of Hydraulic Engineering and Research (IAHR) hosted by Korean LOC with strong back up of the Korea Water Resources Association. (<http://www.ise-2010.org/>)

ARRN will hold a special session in ISE2010. Detailed information will be appeared on ARRN website.

About 200 major river restoration projects in Japan will be uploaded to JRRN website by summer 2009

JRRN secretariat is now arranging case studies of river restoration projects in Japan, and they will be uploaded to JRRN website by summer 2009.



URL: <http://www.a-r.net/jp/en/waterside/index.html>

About 20 cases has already been uploaded so far including photos.

3rd JRRN Mini-Seminar on River Environment: "Endemism of Asia Revealed by Environmental Flows" was held in May 2009



On Wednesday, May 13, 2009, JRRN hosted the Third JRRN Mini-Seminar, the "Endemism of Asia Revealed by Environmental Flows." ARRN Technical Committee Member Dr. Shirakawa gave a lecture concerning the concept of environmental flow and their setting methods, as well as relations between rivers and civilization in Asia, using the keywords: change and disturbance, and explained the concept that helps to address river environmental restoration.

URL: http://www.a-r.net/jp/en/news/jrrn_event/



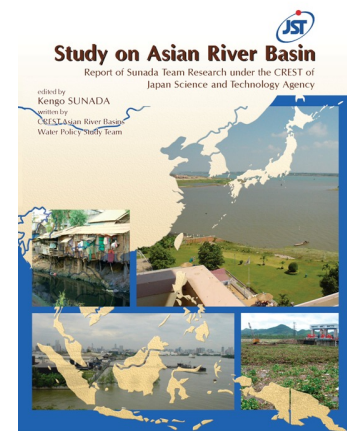
Sample of JRRN website

Publications

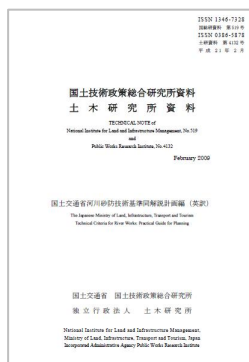
■ Study on Asian River Basin (March 2009)

This is a report of the Sunada Team Research, led by Prof. Kengo Sunada of the Yamanashi Univ., with the financial support from the Core Research for Evolutional Science and Technology (CREST) program of Japan Science and Technology Agency. The intension of the study was to advance a dedicated research with a view to presenting scientific, practical and sustainable water management policy scenarios suited to individual areas and aggregating knowledge and experience related to water management based on the firm awareness of river basin water problems in the diverse Asian region.

URL: <http://www.cec.yamanashi.ac.jp/~tetsu/AsianRiverBasin.pdf>



■ Technical Criteria for River Works in Japan: Practical Guide for Planning (Feb. 2009)
&
The River Law in Japan with commentary by article (September 1998)



"Technical Criteria for River Works: Practical Guide for Planning" which supplements the River Law in technical aspects of planning, design and management of river and facilities. The Criteria was revised and published in 2005, and was translated into English and made public by the National Institute for Land and Infrastructure Management (NILIM) of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) in cooperation with the Public Works Research Institute of Japan (PWRI). The first edition of the criteria published in 1958 was comprehensively revised to reflect the major amendments of the River Law in 1997 and change of technical, social and economic environment.

URL: <http://www.nilim.go.jp/lab/bcg/siryou/tnn/tnn0519pdf/ks0519.pdf>

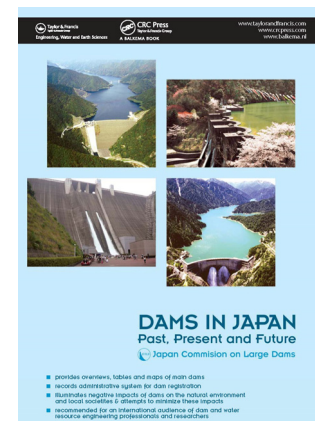
The English version of "The River Law in Japan with commentary by article" is also available at the following web site:

URL: <http://www.idi.or.jp/library/pdf/RIVERE.PDF>

■ Dams in Japan, Past, Present and Future (April 2009)

This volume covers Japan's long water history, starting from the 7th century, when irrigation ponds were first constructed for paddy cropping, until the beginning of the 21st century. It elaborates on various roles of dams: water supply, power generation and flood control.

- Editing: Japan Commission on Large Dams aims
- ISBN: 978-0-415-49432-8
- Price: US\$119.95
- URL: <http://www.routledge.com/books/Dams-in-Japan-isbn9780415494328>



Membership Benefits (How to become an ARRN member)

Joining the ARRN is Free!

To become member of ARRN, please contact to **secre@a-rr.net** by email.

Membership Benefits

- Easy obtaining of domestic and foreign information on river restoration through website, email, and direct contact to ARRN secretariat or other ARRN members as following;
 - ✓ Latest news, topics, projects, experiences, lessons, case studies
 - ✓ International and domestic events such as seminar and workshops
 - ✓ Standard books, technical guidelines, video images, etc.
- Holding opportunity to introduce member's organization and their activities to other ARRN members
- A coordinated business with various foreign countries or organizations
- Holding management support such as international seminar, workshops and establishment of regional river restoration network by ARRN secretariat

Possible Tasks

- (1) Members will participate in ARRN with commitment to use their own resources and to work effectively in partnership with other members that are collaborating in the network. Members will support the objectives of ARRN described in the charter. (<http://www.a-rr.net/charter.html>)
- (2) Members can freely inspect the Web site, and moreover, useful information on river restoration in your organization and your region can be freely sent through the Web site for other members.
- (3) Members positively join for ARRN events such as international forum and the workshop by each RRN sponsoring. Also, every member can hold original workshop by receiving the backup of ARRN or RRN.
- (4) Members cooperate positively when the specialist's technical advice is required or the advanced case investigation committee is sent to another region.
- (5) Members share the information sent by ARRN with related persons in your organization.

Procedure for joining ARRN

- (1) An organization which wants to join ARRN is requested to submit a membership application form by email.
- (2) The membership application form submitted by the organization is judged by the Secretary General and the Chairperson of ARRN.
- (3) After the Chairperson of ARRN approves the membership application form, the organization becomes the ARRN member as a Non-RRN organization.
- (4) ARRN secretariat will send email soon to the contact person named in the application form.
- (5) When plural groups gathered in a certain country or regions, the ARRN secretariat supports the establishment of each RRN. The establishment of new RRN will be judged by ARRN governing council meeting.

Note) In a country/region which RRN secretariat has already established, applicants to ARRN should be registered through the RRN secretariat. (China, Korea, and Japan)

ARRN Membership Application Form for organization (MS-WORD:601kB) is available here.

<http://www.a-rr.net/jp/en/arrn/docs/appform.doc>



Asian River Restoration Network (Secretariat)

Planning Division

Foundation for Riverfront Improvement and Restoration (RFC)

Lofty Chuoh Bldg., 7th Flr. 17-24, Shinkawa 1cho-me, Chuo-ku, Tokyo 104-0033, JAPAN

TEL: +81-3-6228-3860 FAX: +81-3-3523-0640 E-mail: secre@a-rr.net Website: <http://www.a-rr.net/>



Japan River Restoration Network (JRRN) has a role of ARRN Secretariat from Nov. 2006 to Oct. 2010. JRRN Secretariat is managed by Foundation for Riverfront Improvement and Restoration of JAPAN (RFC). <http://www.a-rr.net/jp/en/>