2015 10TH RIHN International Symposium

Beyond Stakeholder Engagement:

The people, cultures, institutions, and ecologies of new water governance

June 17-19, 2015

Lecture Hall,
Research Institute for Humanity and Nature
Kyoto, Japan

RIHN 10th International Symposium

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Organized by

The Research Institute for Humanity and Nature (RIHN)

National Institutes for the Humanities (NIHU)

Inter-University Research Institute Corporation

PREFACE

Modern water management was once a field for engineers and others engaged in the technical and institutional design of systems of water provision. These systems linked construction of large-scale dams and canals to extensive hydro-electric power facilities, expansion of irrigated croplands, and urbanization, all of which were important components of state development in the 20th century, and remain so in the 21st.

Water is also closely linked to sanitation and public health, and has been the object of many basic human development programs, past and present. Such projects have had mixed results, as they often bring the formal institutional logic of water engineers and administrators into direct contact with deeply embedded customary water beliefs and practices.

At the same time, water has re-emerged as an important 'environmental' issue, as an essential element affecting ecosystem productivity, biodiversity, and other material cycles, and so directly and indirectly implicated in contemporary environmental change. Understanding water today therefore requires links or leaps across disparate fields, sites, and kinds of social, ecological, administrative, and cultural knowledge or experience.

Confronting these conceptual and practical challenges in recent years, water research, management, and policy have undergone a dramatic evolution. There is increasing acknowledgement of the need for coherence between human and ecological systems of water provision and cultural practices of water use, so that water governance corresponds to social needs and ecological values. There is also growing recognition of the cultural elements related to water, and attempts to insert them into management systems through a range of participatory methods.

Drawing on fieldwork conducted in Japan, Indonesia, Turkey, and several other countries, this symposium emphasizes the knowledge and learning dimensions of recent social and ecological research in water governance, and reflects on recent conceptual and practical methods of stakeholder engagement. Session participants will examine the frontier of knowledge co-production in water governance as they also reflect on the roles and identities of researchers working in this emerging field.

SESSION PROGRAM

Session 1 Examining Local Water Management: Cases from Indonesia, Turkey and Japan

This session presents the research results of the concluding RIHN project entitled "Designing Local Frameworks for Integrated Water Resources Management". Presentations in the session introduce fieldwork and findings from research sites in Indonesia, Turkey, and Japan, highlighting the distinct institutional and cultural diversity of local water resource governance practices and social frameworks of each. Project researchers closely engaged local stakeholders in order to co-design resource management that addresses economic, social, and environmental needs.

Session 2 Knowledge Co-production in Water Governance: Stories from the field

Governance of water resources is often a highly contested endeavor. Stakeholders, economic sectors, and ecosystems present socio-cultural contexts rife with conflict in which no clear solution may be available. In such circumstances, relevant scientific knowledge may offer few clear answers or be ignored outright. Researchers therefore must engage directly with stakeholders and seek resolutions together. This session presents an opportunity for researchers to describe their stories from the field, allowing reflection on the research process, the roles of researchers as actors within field contexts, the ways in which scientific praxis shapes and is also shaped by stakeholder interaction, and ultimately how common understandings of water governance can be reached. Special emphasis is paid to the difficulties of reaching consensus in groups, the tools and techniques that can encourage mutual trust and learning, and the changes researchers themselves must make in order to effectively co-produce knowledge.

Session 3 Re-thinking the Role of Culture in Resource Governance

This session takes a fresh look at the ways in which culture intervenes in resource governance. Following the previous discussions, presentations in this session examine the ways in which long-term local resource management is linked to specific cultural and material practices (e.g. the management and use of nature), and to more general collective rules, beliefs, and meanings. The session thus allows reflection on the ways in which different systems of knowledge confront one another. Session participants will describe how different ways of understanding nature are not necessarily antagonistic, but instead might complement one another if alternative forms of resource governance can be valued.

PROGRAM

Wednesday June 17, 2015

Opening Session

Chair: Steven R. MCGREEVY (RIHN)

10:00-10:05 Opening Remarks
KUBOTA Jumpei (Deputy Director-General, RIHN)

10:05-10:25 Objectives of the Symposium
ABE Ken-ichi (Symposium Chairperson, RIHN)

10:25-11:25 Keynote Address 1
Water Governance in the Face of Global Change:
From understanding to transformation
Claudia PAHL-WOSTL (University of Osnabrück, Germany)

11:25-11:35 Coffee Break

11:35-12:35 Keynote Address 2
Transforming Scientific Knowledge in 'Dialogical Tools' for Environmental Resources Management
Marco TODERI (Marche Polytechnic University, Italy)

12:35-13:40 Lunch

Session 1 Examining Local Water Management: Cases from Indonesia, Turkey and Japan

Chairs: HAMASAKI Hironori (Nagasaki University, Japan) &
NAGANO Takanori (Kobe University, Japan)

13:40-13:50	Session Objectives HAMASAKI Hironori (Nagasaki University, Japan) and NAGANO Takanori (Kobe University, Japan)
13:50-14:20	Scientific Reality of Hydrological Traits and Human Mindset on Water and Land Use in the Upstream Saba River Basin, Bali OUE Hiroki (Ehime University, Japan)
14:20-14:50	Channelling People, Science and Water: Transdisciplinary in practice, Indonesia Dorotea Agnes RAMPISELA (RIHN)
14:50-15:20	Irrigation in Turkey: Remedy or misery? Erhan AKCA (Adiyaman University, Turkey)
14:50-15:20	Coffee Break
15:40-16:10	Water Management Related to Sustainability and Human Well-being: Beyond the IWRM from local water sustainability NAKAGAMI Ken'ichi (Ritsumeikan University, Japan/ RIHN)
16:10-16:40	Discussion
18:00-	Reception

Thursday June 18, 2015

Session 2 Knowledge Co-production in Water Governance: Stories from the field

Chairs: ABE Ken-ichi (Symposium Chairperson, RIHN),
Daniel NILES (RIHN) & Steven R. MCGREEVY (RIHN)

10:00-10:10 Session Objectives
Steven R. MCGREEVY (RIHN)

10:10-11:10 Stories from the Field

The Power of Dialogical Tools in Water Resource Governance
KOTERA Akihiko (RIHN)

Motivating Farmers toward Environmental Conservation Practices
HASHIMOTO (WATANABE) Satoko (RIHN)

Gaps in Mutual Understanding in Interviews
SEKINO Nobuyuki (RIHN)

Lessons Learned in Co-producing Knowledge: Establishing the Saba River Basin Community, Bali
KATO Hisaaki (RIHN)

Towards New Local Water and Environment Policy in Saijo City, Ehime Prefecture
MASUHARA Naoki (RIHN)

11:10-11:30 Coffee Break

11:30-12:30 From Stories to Lessons in Social Learning from the Field
Panelists: Claudia PAHL-WOSTL, Marco TODERI, KOTERA Akihiko, HASHIMOTO (WATANABE) Satoko, SEKINO Nobuyuki, KATO Hisaaki, MASUHARA Naoki
Moderator: Steven R. MCGREEVY (RIHN)

12:30-13:30 Lunch

Session 3 Re-thinking the Role of Culture in Resource Governance

Chair: **ONISHI Yuko** (RIHN)

13:30-13:40	Session Objectives **Daniel NILES** (RIHN)
13:40-14:20	Local Governance, Livelihoods and Climate Change: Lessons from swidden communities in Vietnam **Moira MOELIONO** (Center for International Forestry Research, Indonesia)
14:20-15:00	"Tirta Budaya Situ": A new concept for urban lake water culture **Ami Aminah MEUTIA** (Osaka University, Japan/ RIHN)
15:00-15:20	Coffee Break
15:20-16:00	Culture as Vehicle to Rehabilitation and Leverage to Sustainable Resource Use **Anne MCDONALD** (Sophia University, Japan)
16:00-16:40	A Values Approach to Solving the Water Crisis **David GROENFELDT** (Water-Culture Institute, USA)
16:40-17:10	Discussion

Friday June 19, 2015

Session 4 Beyond Stakeholder Engagement: Reflection and proposals

Chairs: Daniel NILES (RIHN) & Steven R. MCGREEVY (RIHN)

10:00-10:05	Introduction Daniel NILES (RIHN)
	Synthesis of Days 1 & 2
10:05-10:25	Remarks Claudia PAHL-WOSTL (University of Osnabrück, Germany)
10:25-10:45	Remarks Marco TODERI (Marche Polytechnic University, Italy)
10:45-11:05	Remarks KUBOTA Jumpei (RIHN)
11:05-11:25	Coffee Break
11:25-12:10	Roundtable Discussion: Nurturing social learning in Asian contexts
12:10-12:25	Next Steps, Proposals Discussion
12:25-12:30	Closing Remarks YASUNARI Tetsuzo (Director-General, RIHN)
12:30-	Optional Tour

Keynote Address

Water Governance in the Face of Global Change: From understanding to transformation

Claudia PAHL-WOSTL
University of Osnabrück, Osnabrück, Germany

Claudia PAHL-WOSTL is professor for resources management and director of the Institute for Environmental Systems Research at the University of Osnabrück, Germany, and co-chair of the Global Water System Project. Her major research interests are adaptive, multi-level governance and management of water resources, social and societal learning and their role in sustainability transformations, and conceptual and methodological frameworks to analyze social-ecological systems. She is (co)author of numerous papers in peer-reviewed journals, chapters in edited books, policy briefs and popular reports. Her emphasis on interdisciplinary and community-building work is reflected in her role as editor of four books and twelve special issues in peer reviewed journals. *cpahlwos@uni-osnabrueck.de*

Abstract

The sustainable management of global water resources is one of the most pressing environmental challenges of the 21st century. Many problems and barriers towards improvement can be attributed to governance failures rather than the resource base itself. Often simplistic panaceas have been applied to water issues without long-term monitoring of their performance and effectiveness, and without revision and critical reflection on the practices that would have ensured the appropriate responses to failures at a much earlier stage. The insight is growing that simplistic recipes have to be replaced by more context-sensitive approaches to enable development of flexible and effective governance systems. However, our current understanding of complex water governance systems and in particular how to transform them is still quite limited and fragmented.

The lecture will present a conceptual and methodological framework that captures the dynamics of governance system as multi-level processes of social and societal learning. The lecture will summarize our current understanding of factors that determine adaptive and transformative capacity of water governance systems. Polycentricity combining decentralization of power and effective vertical and horizontal coordination seems to be a promising guiding principle for water governance architectures. Polycentric governance systems should entail a balance between bottom-up and top-down processes, effective coordination between formal and informal approaches and diverse combinations of governance modes. The ecosystem services concept could become a central boundary object that helps to identify and overcome trade-offs between different water used and to overcome fragmentation. Work remains to be done to improve our understanding how such systems can be realized under different socio-economic, political, cultural and environmental conditions. A shift from focusing on idealized outcomes of governance reform towards focusing on adaptive processes of implementation is suggested.

The lecture will elaborate as well on general discourses and developments that have the potential to drive transformative change towards sustainable water governance and management including: the "Water-Energy-Food Nexus", "Water Security", "Bioeconomy and Green Infrastructure" and "Implementation of Sustainable Development Goals".

Keynote Address

Transforming Scientific Knowledge in 'Dialogical Tools' for Environmental Resources Management

Marco TODERI, M. Francioni and P. D'Ottavio
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Marche Polytechnic University, Ancona, Italy

Marco TODERI is researcher of the Department of Agricultural, Food and Environmental Science (D3A), Polytechnic University of Marche (Italy). He received his PhD in cropping system analysis at the University of Sassari (1998). His research interests concern water management and environmental impact of cropping and farming systems, climate change adaptation and biodiversity conservation. His major publications include "Impact of Cropping System on Soil Erosion in the Clay Hills of Central Italy" (2002), "Stakeholder Analysis for Sharing Agro-environment Issues Towards Concerted Action: a Case Study on Diffuse Nitrate Pollution" (2006); "Combining social learning with agro-ecological research practice for more effective management of nitrate pollution" (2007), "Impact of different climate change scenarios on rainfed cropping systems in Central Italy" (2008), "Sustainable Catchment Managing in a Climate Changing World: New Integrative Modalities for Connecting Policy Makers, Scientists and Other Stakeholders" (2011), "CRITERIA-3D: A Mechanistic Model for Surface and Subsurface Hydrology for Small Catchments" (2011), "Agri-environmental measures for the conservation of semi-natural grassland: a case of study in Natura 2000 sites in Marche Region (Italy)" (2014).
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Abstract

The Water Governance is a typical example of resource dilemma. Resource dilemmas are characterized by: (i) common pool resources used by, (ii) multiple stakeholders that make different claims on the resource, (iii) interdependence among stakeholders, (iv) controversy, (v) complexity and (vi) uncertainty (Blackmore, 2007). In this context, the role of social learning and participatory processes in addressing resources dilemmas has become increasingly recognized. In environmental governance discourse there is movement away from conceptualizations of 'ecological systems' and 'social systems' as a dualism. Reconceptualization of water catchments as a socio-ecological systems make new demands on understanding the nature of the research-policy-practice relationship (Young et al., 2006) shifting from a linear model of knowledge production, based on researchers analysis and recommendation, to a co-generation model with stakeholders involvement in every phase of the decision process (Ison et al., 2011). This model changes the stakeholders roles in the system. For example, the researchers shift from providing solutions based on their own results to co-research with other stakeholders. Scientific data can be transformed into 'dialogical tools' to de-construct the issue in multiple stakeholders platforms facilitating the emergence of local knowledge and to identify strategies for concerted actions (Toderi et al., 2007). King and Jiggins (2002) and Keen et al. (2005) identify also co-designing governance of norms and protocols (triple loop of learning) as a key element for environment and resource management.

In the symposium presentation the authors will show how their shift of role in the system, from the linear model of knowledge production to co-generation model with local stakeholders involvement, favored changes for co-designing governance on water and environmental management.

- Blackmore C. (2007). What kinds of knowledge, knowing and learning are required for addressing resource dilemmas?: A theoretical overview. Environmental Science & Policy 10: 512–525.
- Keen M., Brown V., Dybal R. (2005). Social Learning in Environmental Management. Earthscan, London, UK.
- King C., Jiggins J. (2002). A systematic model and theory for facilitating social learning. In: Leeuwis C., Pyburn R. (Eds.), Wheelbarrows Full of Frogs. Koninklijke Van Gorcum, Assen, The Netherlands, pp. 85–105.
- Ray I., Collins K., Colvin J., Jiggins J., Roggero P.P., Seddaiu G., Steyaert P., Toderi M., Zanolla C. (2011). Sustainable Catchment Managing in a Climate Changing World: New Integrative Modalities for Connecting Policy Makers, Scientists and Other Stakeholders. Water Resource Management, Volume 25, Issue 15, pp 3977-3992.
- Toderi M., Powell N., Seddaiu G., Roggero P.P., Gibbon D. (2007). Combining social learning with agro-ecological research practice for more effective management of nitrate pollution. Environmental Science & Policy 10: 551–563.
- Young O.R., Berkhout F., Gallopin G.C., Janssen M.A., Ostrom E., van der Leeuw S. (2006). The globalization of socio-ecological systems: an agenda for scientific research. Glob Environ Chang 16: 304–316.

Scientific Reality of Hydrological Traits and Human Mindset on Water and Land Use in the Upstream Saba River Basin, Bali

OUE Hiroki
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OUE Hiroki is professor in the Faculty of Agriculture, Ehime University and is also appointed as Special Assistant to the President, Ehime University. He received his PhD in agricultural Studies from Kyoto University (1993). He was assistant professor at Ishikawa Agricultural College (1989 – 1993), assistant professor at Ehime University (1993 – 1996) and associate professor at Ehime University (1996 – 2006). His major field of interests is agricultural meteorology and hydrology. His major publications include micrometeorological studies, e.g., "Effects of Vertical Profiles of Plant Area Density and Stomatal Resistance on the Energy Exchange Processes within a Rice Canopy", Journal of the Meteorological Society of Japan (2001), "Evaluation of Ozone Uptake by the Rice Canopy with the Multi-Layer Model", Journal of Agricultural Meteorology (2008) and "Estimation of Areal Average Rainfall in the Mountainous Kamo River Watershed, Japan", Journal of Agricultural Meteorology (2015). *oue.hiroki.mh@ehime-u.ac.jp*

Abstract

The upstream Saba River basin, Bali, Indonesia occupies an area of 105.6 km^2, the altitude of which ranges from about 200 to 2,270 m and 93% of which consists of forest, including plantation forest of coffee and clove. Among total forest in this basin, clove and coffee plantations account for 73 % and 15 %, respectively. Clove has been planted even by converting from coffee and rice paddy field due to its higher commercial value. On the other hand, coffee has been recommended to be planted by the local government because of its expected service of conserving water and soil, but without any scientific proofs presented. Moreover, differences of this function between coffee and clove have not been discussed so far.

Average annual areal rainfall in this basin in 2013 and 2014 was 2,905 mm, among which annual total discharge was 1,435 mm. The base flow, which can be used readily, was 1,071 mm. Main reasons of the sufficient amount of available water resources would not be only abundant rainfall but also the effect of water catchment in forests. Field measurements in the RIHN project have been focusing on hydrological processes especially interception of rainfall; throughfall and stemflow in clove and coffee plantations revealed that both plantations had the function of decreasing flood and delaying the response in the runoff process. In detail, coffee was superior to clove from the viewpoint of decreasing the amount of throughfall, and the clove was superior to the coffee from the viewpoint of delaying the response in throughfall. The predicted discharge with the hydrological model in this basin, under different land uses from the present, showed doubled peak discharge and lowered base flow in case of converting all coffee to clove and little lowered peak discharge in case of making all plantations back to natural forest.

People in the upstream Saba River basin are looking at the basin as a main part of their livelihoods. They know that rainfall in forests enrich rivers, canals, groundwater and springs with water in their daily life. They also perceive that discharge from a spring changes with the change in climate condition. These mindsets have been supported not only by the scientific reality like dynamic hydrological process driven by abundant rainfall but also by beliefs that harmonizing with God and nature or with forest and rice paddy field gives them happiness and wealth, which corresponds to the scientific reality of hydrological processes.

The question of changes in hydrological process with changes in land use or type of forest has not been solved completely by scientific researchers. In the same way, the solution has not yet been brought to their social mindset on water and land use.

Channelling People, Science and Water: Transdisciplinary in practice, Indonesia

Dorotea Agnes RAMPISELA
Research Institute for Humanity and Nature, Kyoto, Japan

Dorotea Agnes RAMPISELA is an associate professor of the Research Institute for Humanity and Nature (RIHN). She received her PhD in forest hydrology from Kyoto University (1992). She served as assistant professor (1987-2000) and then as associate professor (2001-present) at Hasanuddin University Indonesia. She has been working with communities since 2000 and for the last ten years she has been focusing in facilitating farmers and water users association in irrigation water management and conducting participatory action research. Her major publications include *Simple and Quick Indicator of Poverty: Proof of Electricity Payment in Identifying Eligibility of Target Group of Poverty Alleviation Program in Social research and Evaluation of Poverty Reduction Project* (2013); *A Long-term Evaluation of Families Affected by the Bili-Bili Dam Development Resettlement Project in South Sulawesi, Indonesia* (2013); *Key Coffee: Establishing Specialty Coffee Toarco Toraja by Building Capacity of Farmers and Middlemen* (2011); and *Effect of Construction of Bili-Bili Dam (Indonesia) on Living Conditions of Former Residents and Their Pattern of Resettlement and Return* (2009).
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Abstract

The RIHN project Designing Local Frameworks for Integrated Water Resources Management aims to propose knowledge structures and functions of water resources management to local-level stakeholders who play the essential role in adapting IWRM into society. As IWRM is sometimes criticized for its emphasis on the natural sciences and policy, it is necessary to enhance a transdisciplinary approach to broaden its appeal.

Depending on the specific problems and socio-cultural conditions, various approaches to do so are proposed. In Indonesia, the long experience of strong top-down government resulted in an ambiguous function of local water users associations. This paper will explain the social learning process under different conditions. It will show the process of understanding governance and cultural systems and how the scientific know-how necessary to improve problem-solving processes is generated. The paper also describes in detail the process and result of action-research implemented in Sulawesi. Channelling people by designed meetings and discussions series and delivering knowledge and scientific information properly to stakeholders improved both soft and hard measures adopted to improve resulted not only better water distribution but also encourage self-initiative action of farmers and other stakeholders.

Irrigation in Turkey: Remedy or misery?

Erhan AKÇA[1], Memet A. Çullu[2], Suha Berberoğlu[3], Mahmut Çetin[3], Hayriye İbrikçi[3], Mustafa H. Aydoğdu[2], Ali V. Bilgili[2], Ahmet Çilek[3], Hamasaki Hironori[4], Gökhan Büyük[1], Çiğdem Sabbağ[1], Kotera Akihiko[5] and Nagano Takanori [6]

1. Adıyaman University, Adıyaman, Turkey
2. Harran University, Şanlıurfa, Turkey
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6. Kobe University, Kobe, Japan

Erhan AKÇA is associate professor of the Center for Remote Sensing and Geographical Information systems (UACBS), Adıyaman University, Turkey. He received his M.Sc. on soil mineralogy and micromorphology in soil science at the Çukurova University, Turkey (1995) and his PhD on land quality Assessment at the Çukurova University, Turkey (2001). He had his part of Ph.D studies in Aberdeen University. He was research assistant at the Çukurova University (1993-2001), assistant professor in Çukurova, Van, Tokyo and Adiyaman Universities from 2001 to 2011. He received his associate professorship at Adıyaman University in soil science and archaeometry. His major field of interests is land use, soil technology and ceramic archaeometry along with ancient land use practices. He participated more than 25 projects funded by NATO, EU, FAO, MITSUI Environmental Fund, JSPS and TUBITAK projects undertaken in Italy, Morocco, Georgia, Azerbaijan, Cyprus, Tunisia, Iran, Lebanon and Turkey. He is also a consultant to the Ministries of Food, Agriculture and Livestock, and Forestry and Water Affairs of Turkey both in national and international projects. He had more than 100 works on land use, natural resource management, and soils as raw material published as book, chapters and papers.
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Abstract

Agriculture in Turkey dates back to the green revolution of Neolithic Period in 10000 BP. Several regions in this territory were reshaped by peoples of various civilizations working in agricultural production domains such as olives in Mediterranean, Aegean and Marmara, cereals in Central Anatolia, orchards in Southeast, and grazelands in Eastern Anatolia. A majority of ancient production was rainfed and irrigation was performed in areas nearby river terraces and/or shallow groundwaters. For example Urartu's constructed dams in Eastern Anatolia in 2800 BP for irrigation, and terraces and irrigation channels were built in Mediterranean by Romans ca 2000 years ago. These activities were not harmful to natural resources as none of the crop was water dependent; even cotton in Çukurova region was produced under rainfed conditions in the 18th century.

Things changed in the 1950s with the introduction of agricultural machinery, fertilizers and high water demanding varieties of cereals, orchards (citrus), cotton, and recently maize. In the 1960s, farmers' pressure on politicians accelerated construction of irrigation networks in Aegean, Mediterranean and Marmara regions in which there are many rivers, as there are in Çukurova in southern Turkey. In the 1990s locals of other regions where river networks are insufficient demand irrigation investments with high cost as in Harran in southeastern Turkey. Excess irrigation in Çukurova most likely led to high soil salinity in the upper parts of the plain, whereas irrigation in Harran triggered salinity in lower parts such as Akçakale. In both areas farmer

income tripled, but at the cost of nitrogen and phosphorus pollution, and increasing fertilizer and water use. Several attempts were carried out for sustainable water use in both regions, but due to the lack of common knowledge and objectives among stakeholders problems did not disappear, as nitrogen fertilizer use exceeds 1ton/ha in Çukurova, and salinity extended to 18,000 ha in Harran.

Meetings organized in Çukurova and Harran by the RIHN research project revealed interesting outcomes from stakeholders. Farmers mainly aimed to maximize production without any limitation on or payment for water use, whereas governmental agencies aimed to increase their income through strict water-use regulations and laws. Sustainable use of water resources is not the prime objective of any of the stakeholders, although some traditional practices such as night irrigation saved 1 billion liters of water in 500 ha in the Cullap Water Users Irrigation Area. But the lack of such simple practices is most probably due to insufficient dissemination of knowledge, particularly by universities or research institutions that always suffer from low funding. Moreover, none of the parties that have rights of water-use want to share these rights with other stakeholders. Stakeholder meetings in Çukurova and Harran demonstrated potential cooperation opportunities, however, if equity in water use and planning is attained among stakeholders. Otherwise irrigation will be a misery for society even at the village household level, where in addition it causes many conflicts among women.

Water Management Related to Sustainability and Human Well-being: Beyond the IWRM from local water sustainability

NAKAGAMI Ken'ichi[1 2]

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NAKAGAMI Ken'ichi is specially appointed professor at Ritsumeikan University (Japan). He received his M.A. in hydrology at Nagoya University (1974) and Ph.D. in environmental engineering at Osaka University (1981). He was research associate at Kyoto University (1976-1979). He is visiting professor at RIHN and the Integrated Research System for Sustainability Science (IR3S) at The University of Tokyo. His major fields of interests are sustainability science, environmental economics and policy, water resources and environmental policy, urban and regional environmental policy, integrated water resources management for water security, coastal zone management and water business. His major publications include "Strategic Adaptation towards Eater Crisis and IWRM", Gihodo, 2011 (Japanese), "Sustainability and Water Resources & Environment", SEIBUNDO, 2008 (Japanese), "Strategic Adaptation Towards Water Crisis" (co-editor), The University Press Limited, 2014, "Designing Our Future: Local Perspectives on Bioproduction, Ecosystems and Humanity" (co-editor), UNU Press, 2011. *nakagami@sps.ritsumei.ac.jp*

Abstract

The core values of WWF6 (2012) and WWF7 (2015) were "Time for Solutions" and "Water for our Future". These concepts directly reflected the international political situation of water resources and management. Integrated Water Resources Management is one of the longstanding concepts in this field. The origin of the IWRM is often linked to the establishment of Tennessee Valley Authority (TVA) in 1933. The theme of "Designing Local Frameworks for IWRM" is new wave in the IWRM concept, but in order to achieve its objectives, it requires more hard and innovative fieldwork and findings of new facts.

Japanese water management has changed to reflect the level of water utilization and development of agricultural use, industrial use, and urban use. Before the establishment of the River Act (1897), Japanese water management generally was directed towards development of uncultivable land through flood control works undertaken by feudal lords and, later, integration of flood control and water utilization after the central government established the legislation system for water utilization in 1945. From the lessons of severe public nuisance caused by industrialization/urbanization and the empowerment of citizen movements, water management systems should be included as a component of environmental conservation. From the experience of the Japanese water management, water management related to sustainability and human well-being should be examined in present time. To discuss the new direction of IWRM, this paper reviews of the background and direction of IWRM (eg. Harvard Water Program, Dr. A. K. Biswas's review, U.N.). Finally, it relates discussion results of World Water Council and OECD on the WWF7 to the current challenge to go beyond IWRM.

The Power of Dialogical Tools in Water Resource Governance

KOTERA Akihiko

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KOTERA Akihiko is a senior project researcher at RIHN. He received his Ph.D. in agricultural science at Kyoto University (2005). He was post-doctoral research fellow at National Institute for Agro-Environmental Sciences, Tsukuba, Japan (2005-2010) and post-doctoral research fellow at Kobe University (2010-2014). His major fields of interest are satellite remote-sensing and disaster monitoring in crop production. His recent major publications include "Assessing the degree of flood damage to rice crops in the Chao Phraya delta, Thailand, using MODIS satellite imaging" (2015, Paddy and Water Environment) and "A modeling approach for assessing rice cropping cycle affected by flooding, salinity intrusion and monsoon rains in the Mekong Delta, Vietnam" (2014, Paddy and Water Environment). *akotera@chikyu.ac.jp*

Abstract

In participatory learning processes, Geographical Information Systems (GIS) have been utilized widely as a powerful tool in information communication. The tool itself, however, may sometimes obstruct communication, e.g. when a scientific background is required for interpretation of GIS data. The methods of information transfer should be easier and more intuitive to encourage a constructive dialogue among participants. This talk describes our trials in participatory learning using a new GIS displaying tool showing solid and tangible images.

The tool we are developing consist of a 1:75,000 solid topographical map screen, 1080p projector, and tablet PC. We designed the tool as "Tabletop display" so that participants can surround the table within face-to-face distance and can look down the information on the screen within the distance they can touch the material. The images projected on the screen include multi-scale remote-sensing images, GIS maps, and scanned maps such an existing map of irrigation scheme, that are also intended to help participants enjoy the process and to help the facilitator to show required information instantaneously.

The first trial was implemented in a local water-users meeting at an irrigation command area in southern Sulawesi Island, Indonesia. The main purpose of the meeting was to discuss the schedule of irrigation water allocation for the high season of water demand for the coming dry season crop. The number of participants in this meeting was 11 (excepting researchers), who are representative of each small irrigation group. The tool was demonstrated in one of the intervals between meetings by showing simple theme contents. We tried to explain the condition of the watershed to understand the source of their irrigation water and how it is reached to their paddy field. We also aimed to increase awareness of geographical position of their field between upstream and downstream areas. To observe effects of the new tool, we compared conventional tools such the paper materials including same contents used with the new tool.

At the beginning of the demonstration (we had started from the scale of the earth, and closed to the target area), participants were just watching it in fear. But after knowing about the touch-allowed screen from our brief explanation, they began to show interest gradually and began to ask question voluntarily. And when we started to show them the close-up of their living area and related information, they began to talk about their opinion excitedly. That was the moment we had the dialogue, having common images.

As compared with the learning using paper materials, we observed that the new tool could significantly encouraged mutual dialogue among participants and researchers. There is still uncertainty in the reason for these significant changes, as it might be that they were only interested in new and curious thing for them or they were attracted to facilitator who was also enjoying the tool together with them. Through these trials, though, at least we found an effective tool to provide various alternate view of information and to stimulate mutual communications between participants and researchers.

Motivating Farmers toward Environmental Conservation Practices

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Abstract
Two case studies in which farmers incorporated some techniques or practices for environmental conservation are introduced. The first is a case in which residuals of livestock waste treatment (methane fermentation process) are used as fertilizer in paddy fields in Kyoto, and the second is reuse of drainage water as irrigation water in paddy area in Shiga Prefecture.

At first, for the digested liquid by methane fermentation, local farmers showed a negative response in spite the material's merits. However, through the demonstration experiment using digested liquid as fertilizer over the years, users increased gradually. In this case, the bottleneck was that farmers were unfamiliar with the unknown fertilizer, and therefore the scientist's role was simply to verify the effectivity and establish the application methods.

The second case in the Echigawa area located in the eastern side of Lake Biwa is expected to reduce turbidity and drainage of nutrient-rich water from paddy fields and other areas around the lake. To prevent turbid water, Shiga Prefecture promotes and subsidizes the practice of reuse of drainage water as irrigation water in paddy fields. In Echigawa, there are a number of reuse facilities, but their main purpose is not to reduce environmental loads but to conserve water resources, as there were previously water shortage lasting decades. In this case, farmers didn't need scientific proof of the technique (as they had already experienced it directly) and the main driving factor shortage of water.

This presentation will discuss what is needed to motivate farmers toward environmental preservation practices and the different roles of scientists in each case.

Gaps in Mutual Understanding in Interviews

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Abstract

In qualitative research, listening is the most common research method. Listening to the voice of stakeholders in the field is a very important task to achieve academic outcomes. However, listening is the most highly dependent on the personal qualities and human relations of investigators. People surveyed will not always necessarily answer questions accurately. They often say only something that seems convenient to them. And as more people are involved, the gap between stakeholders' stories can widen dramatically. As a result, researchers will be suffering to determine: "Who has told the truth?"

This gap becomes wider if researchers hire a local interpreter who speaks a local language. Interpreters often misunderstand the intent of the question. The answer of those surveyed also is often distorted by an interpreter. Even if the interpreter is a researcher and had sufficient arrangements in advance, it is not possible to avoid gaps in the interview.

In addition, if researchers use terminology that is not recognized by local people, these words sometimes produce a tragedy. For example, in a case study of West African marine protected areas, different perceptions of the word "conservation" created a large gap between the local people and the NGO or researchers, and amplified the conflict among stakeholders.

How to eliminate the gap in interviews? How should researchers interpret interviewee statements if the discrepancy between people's answers to problems may even affect the future of the local community? We discuss these situations in relation to fieldwork conducted on West African marine protected areas and water resources management in Bali.

Lessons Learned in Co-producing Knowledge: Establishing the Saba River Basin Community, Bali

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Abstract

In global environment research today, where the "accumulation of small action" for trust-building within local communities is in demand, it is becoming difficult for scientists to simply be observers. Currently, scientists must be participants as well. In other words, the role of post-modern scientists is not only in cooperating with local people to consider and solve complex local issues, but also in the "description, organization, and preservation of methods and expertise". The expansion of the scientists' role and function in this manner will greatly change the role of scientists in communities. For example, in the review of the main local level constituent that is water resource management, a scientist focuses on measurement activities and diagnosis of the local water and land environmental situation, takes minimal early-level action with the people of the basin to guide them to autonomous action, and then monitors change. In addition to drawing a direct line to "environmental activists as activism", the problem of how scientists will be forced to change in a society where they approached societal co-production from a distance is a modern question without an answer.

Towards New Local Water and Environment Policy in Saijo City, Ehime Prefecture

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Abstract

In Aug. 2009, Saijo City in Ehime prefecture became the first partnership public authority with RIHN. Since then, much academic research has been conducted in the city and important data for policy development has been produced, especially in relation to water.Saijo city is one of our research project fields. It is unique from viewpoint of integration of natural science and social science because integration of water-related research and the environment planning process is strongly needed. In this report, I would like to introduce results of previous studies and describe the future plan for new city water and environmental policies.

Local Governance, Livelihoods and Climate Change: Lessons from swidden communities in Vietnam

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Abstract

Communities living in and around forests have developed strong traditions related to the use and management of the forest resources they depend on. One such is traditional swidden systems, often blamed for deforestation. Research shows that these systems can maintain and enhance carbon stocks while also contributing to biodiversity and other ecological services. Swidden systems therefore may be compatible with endeavors to promote nature conservation through payments for environmental services (PES) and Reducing Emissions from Deforestation and Forest Degradation (REDD+). In order to achieve their objectives, however, PES and REDD+ must build on existing local governance structures. This paper describes swidden-based local resource governance though analysis of information and resource exchange in two communities in Vietnam, focusing on examination of traditional local governance affecting swidden practices, and the action of mass organizations. Analysis shows a high diversity of formal (government formed networks) and informal (traditional) swidden governance structures, which could accommodate REDD+ and PES schemes, and the significance of geographical accessibility, social culture, and capacities of government in determining how swidden communities can best participate in REDD+/PES schemes.

“Tirta Budaya Situ”: A new concept for urban lake water culture

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Abstract

There are about 1000 urban lakes (Bahasa: situ, Japanese: tameike) in Jakarta metropolitan. These urban lakes have been used for irrigation of paddy field, flood control and groundwater storage. Recently the rapid development and expansion of urban areas have caused loss of urban lakes physically, loss of culture related to the lake, and ecosystem degradation. Water quality is deteriorated in this condition. This causes a domino effect as the annual flooding, major flood five years, outbreaks of gastroenteritis diseases and dengue fever. Loss of culture also have caused changes in people behavior such as not appreciating water and surrounding environment so that they throw garbage and sewage directly into the lake. In 2009, the collapse of Situ Gintung Dam awaked the importance of the situ and their surrounding green open space (GOS). The accident became a momentum to make public consciousness for maintaining and rehabilitating of situ with its GOS around Jabodetabek area. However, rehabilitating only is not enough if not followed by continues maintenance. Because of limited budget, the government itself cannot continue to maintain of these lakes. Therefore, the community participation is essential. From the research, there is evidence that situ which is maintained is supported by the activity of the surrounding community. This study proposes a new concept of water culture called Tirta Budaya Situ paying special attention to local environment conditions, socio-cultural background and the role of local community. This study also intends to enhance multiple functions of the urban lakes so that new model of urban lake area management will be proposed.

Culture as Vehicle to Rehabilitation and Leverage to Sustainable Resource Use

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Anne MCDONALD is professor of Sophia University, Graduate School of Global Environmental Studies and project professor of Keio University. She is from Canada and has resided in Japan for 24 years. A graduate of the University of British Columbia in 1991, she began her career at an academic publisher, publishing 11 books in Japanese. Since 1999 she has served as visiting researcher on the Japanese Ministry of Environment review team member for IPCC reports, attending IPCC plenaries as member of the Japanese government delegation. From 2008 to 2011, she was founding director of the United Nations University-Institute of Advanced Studies Operating Unit Ishikawa/Kanazawa. With a mandate to link research to policy development and implementation, she worked closely with researchers involved in ecosystem assessments, local and national policy makers and UN conventions related to the environment. During this time she worked with Japanese government, local communities towards UN FAO designation of Ishikawa and Niigata Globally Important Agricultural Heritage System (GIAHS) sites. Since 2010 she has worked with the Secretariat of the Convention on Biological Diversity on marine-related issues, notably to establish the Sustainable Ocean Initiative (SOI) at COP10 Nagoya, an interface between science/policy to strengthen the marine biodiversity elements, and to achieve marine related Aichi Targets 6/10/11. She continues to work with the Japanese government at national and local levels on community-based resource use and biodiversity conservation related policy development.
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Abstract

Modern scientific technology has facilitated progress on many fronts, but has also been a main driver of unsustainable resource use and environmental degradation. How to reverse the negative trends of scientific innovation has perhaps ironically led many to re-think the role of culture and tradition in resource use and governance. To explore questions related to how culture and tradition can potentially act as vehicles towards more integrative approaches of resource governance and how they can facilitate local stakeholder integration, improving relations between local community members, scientists and policymakers, this presentation will look at two case studies in Japan; one from the floodplains of Miyagi prefecture, Tohoku, the other of landless fisher people of Hegura Island in the Japan Sea. The former will explore how culture and tradition contributed to the reversal of wetland degradation, how culture can potentially be a vehicle for rehabilitation of degraded habitats and re-direct communities on the road to sustainable resource use. The latter explores resource governance when a culture develops as a result of lack of access to land-based resources. When land-based resources, specifically forest and farm lands and the water rights often linked to land-based rights, are denied a community, how does cultural identity develop in a way that it becomes a leverage for community-based resource management? By exploring two disconnected cases from the field hope to contribute to re-thinking the potential roles culture plays in resource governance as a way towards future sustainability.

A Values Approach to Solving the Water Crisis

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Abstract

Around the world, water systems are caught in a vicious cycle of over-use and degradation even as water demands increase, and climatic conditions become ever more chaotic, leading to further degradation. Yet there are also many cases of local watersheds or entire river basins (e.g., the Rhine) making steady improvements. How does this happen and how can this trend be enhanced? I suggest that careful attention to the values dimension of water use and water resources management, can stimulate a "virtuous cycle" of ecological restoration coupled with lower water demands. The impact of values on actual behavior is both direct (new ethical standards such as the human right to water) and indirect (e.g., new urban aesthetics can build support for river-front development resulting in political support for river restoration).

The systematic study and application of water ethics could lead to a new paradigm, providing a complement to other major "schools" within water governance, namely (1) Technology/engineering, (2) Institutions/economics, and (3) Integrated Water Resources Management (IWRM) which combines the physical and institutional. A values or ethics approach would make explicit the rationale of decisions about how water should be used and how water ecosystems should be managed. Viewing a water system (irrigation network or urban water utility) as a moral system provides a common "language" (of values and ethics) for analyzing and comparing water governance across cultures (e.g., Japan vs. Bali) and across time (e.g., Classical Rome vs. modern Italy). This approach opens new possibilities for applying ethics from diverse cultures, past and present, to help address contemporary water governance challenges.

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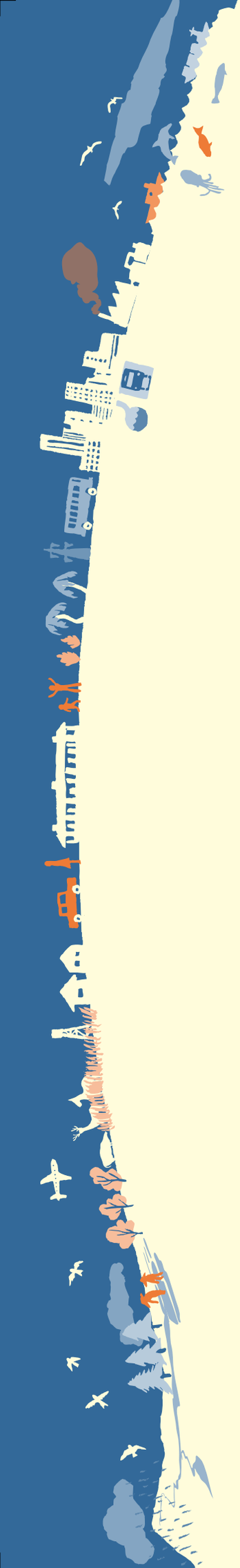
Notes



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