

A STUDY ON A REGENERATION OF URBAN COMMONS THROUGH THE NATURE FRIENDLY RIVER MANAGEMENT AND “FINDING HOME PLACE”

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Abstract

The Nature Friendly River Management: NFRM is the present guideline of Ministry of Land, Infrastructure, Transport and Tourism, Japan. It considers biota well growth environment a river originally has; conservation and creation of various natural landscapes; contemplation of the nature of the entire stream; and harmony with people’s lives, history and culture in the region. Some of the rivers in rural areas have been successfully restored by NFRM, and they help regenerate commons of the region.

Zempuku-ji River, running through the central part of Tokyo, has been restored by NFRM, but restoration of the urban river seems not an easy challenge. Since urban rivers have been modified and yielded so much to man-made environments, people do not have many chances to closely feel and touch their local ecosystems. Although citizens’ participation is critically important process to build a consensus in order to lead a successful NFRM, not many people pay attention to urban rivers.

This study focuses on two thoughts which use words Furusato or Home Place to share with various people. First, Ernest Callenbach, the author of *ECOTOPIA*, suggested that cities can be much more ecological and awareness of a sense of “Home Place” is the first important step for city people to understand urban ecology. Second, Toshio Kuwako, a philosopher, proposes a method of “Finding Home Place”, a work shop in the field to lead participants to rediscover the historical and cultural values as well as problems of the region through it. A citizens’ group has been engaging to NFRM activities along Zempuku-ji River. There participate civil engineers, university professors and students, ecological and environmental activity groups and local community. This study examines NFRM in an urban river from two viewpoints of “Home Place” to see whether their approaches are effective paths to regenerate urban commons.

Key words: urban commons/ urban ecology/ nature friendly river management/ finding home place/ sharing the sense of home place

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1. Introduction

This study aims to answer a question whether Nature Friendly River Management (NFRM) contributes to a regeneration of urban commons in a large city like Tokyo. The question raises other questions; if NFRM can possibly be applicable to large cities and if it can function in urban environments; how can a social consensus be built among diversified urban residents. In other words, the purpose of this study is to stipulate key points to build a social consensus on NFRM program in metropolitan Tokyo and examine the possible effects of the NFRM there.

What Garrett Hardin (1968) illustrated in “the tragedy of commons” is that the commons becomes devastated when each shepherd tried to own only one extra sheep. “The tragedy of commons” suggests that the total of a small amount of each excess use of nature would easily exceed its carrying capacity. According to Hiroyuki Torigoe (1997) who takes the position of life environmentalism, a concept of commons gives us a motive to think about the relationship between nature and mankind. It is an opportunity to try to construct better natural and human living environment.

The nuclear power plant accident in Fukushima caused by The Great East Japan Earthquake on March 11, 2011, namely “3.11,” revealed that nuclear energy is extremely hazardous and uncontrollable once an accident occurs. And also this unprecedented disaster has reminded people of their ignorance about nuclear power as a social and environmental issue. The disaster has jeopardized not only local commons by threatening lives and social welfare of local residents, but also global commons by air pollution and ocean contamination. The accident made people in Japan realize that each individual member of the society must not be indifferent to the future and induced them to reconsider how to treat commons. During this two years since 3.11, more people have begun to join the discussion about environmental issues, social issues and their own lifestyle, or people ask themselves autonomous questions such as “what can I do for the disintegrated region”, or “what can I do for this situation”. After 3.11, it becomes much more important to have a vision of the society to share with.

The vision of a sustainable society should be expressed with easy word to share by various people. This study focuses on easy words 「ふるさと」 “*FURUSATO*,” in Japanese or “*Home Place*” in English, as key words to value commons and scrutinizes them. According to Tamami Fukuda (2008), a cultural geographer, “Home” being focused on as an academic subject since late 1990s is one’s own base and it has a wide range of meanings from small personal space of dwelling, home place, to his or her home nation. We examine two thoughts of Home Place, Ernest Callenbach and Toshio Kuwako in order to find a path to the regeneration of the urban commons.

A case we study in this paper is a citizens’ activity under NFRM Project named 「善福寺川を里川にカエル会」 “*Zempuku-ji Gawa wo SATOGAWA ni Kaeru Kai*,¹” in Suginami City, Tokyo. Authors as members in the project study how to lead citizens to participate in the activity and to build a social consensus to restore urban rivers. We, hereby, try to apply a method of “Finding Home Place” for a social consensus on NFRM in Tokyo.

This paper discusses about meaning of two thoughts of Home as their key words; we review history of river management in an urbanized area and identify moot points of practicing NFRM; to see the object of the case study, Zempuku-ji River; to examine the present state of the river and the fruit of the citizen activities and possibilities of a regeneration of the urban commons.

¹ The name of the group means to change Zempuku-ji River into *SATOGAWA* in English.

2. The Impact of Land Use on Urban Commons

Regeneration of the urban commons is difficult that urban dwellers are not able to share a vision of a sustainable society. In a large city like Tokyo, most of endemic natural environment and ecology has been yielded to human-made environment through urbanization. People who were born, grew up, or have lived in an urban area for a long time do not have chances to experience or closely feel their local ecosystems. It must be difficult for them to understand the necessity of nature restoration, or to imagine scenery after the restoration. It is difficult for urban dwellers that live in the society with advanced science and technology as well as economic systems, to imagine how individuals could contribute to regenerate urban commons.

Urban land use is regulated by national and regional land use policies, the City Planning Law, and the Building Standards Law. Also land use is influenced by complicated economic frameworks. In a large city like Tokyo, land is treated as property and valued economically. Questions about land use in large cities are all of land use is tend to considered adequate if they are lawful, or the values of pieces of lands are evaluated only by economical aspect. There is no common sense established in use of land as a piece of financial products.

An economic geographer, Masahiko Mizuno (2010) reviews urban land use in restructuring global cities in developed counties in the 2000s,

... Urban spaces that contain land and buildings have gradually been incorporated in global financial capitalism. In other words, they have become financial products that have been traded beyond local and national borders, which caused a growth in financial business and a rapid rise in housing prices and rest prior to financial crises. The surge of financial capitalism in the 2000s has had a tendency to destabilize urban space and the lives of the resident in these areas.

When land becomes financial products, it is economically evaluated and is treated as space in an abstract manner. Investors are interested in land only as financial products, not the actual land on the Earth. The money invested in financial products is not invested to the abstract space, but poured into real estates and development plans. Since the development with investment money tend to be large scale, people in the adjacent community feel threatened by degradation of living environment and townscapes. Also people are concerned about the influence of the development on natural environment. They are sometimes involved in the anti-development activities to protect their living and natural environment in their home place.

Therefore regeneration of commons and restoration of urban ecology seem to be challenge in urbanized areas where land use is basically considered as economic activities. And it is important to express a vision of a sustainable society with a simple word Home that to be able to share with many different groups of people.

3. Thoughts of “*Furusato*” or Home Place for Urban Commons

1) Home Place: a Sustainable Society Illustrated by E. Callenbach

To begin with, we examine a novel *Ecotopia*, first published in 1975, that Ernest Callenbach, an American writer and environmental philosopher tries to holistically illustrate a path to a 21st century sustainable society (Callenbach 1995:166). Eisaku Tsuruta (1995:192), who translated Callenbach’s works into Japanese, points out that the characteristics of his thoughts are to propose practical visions people can take forward into action.

The novel *Ecotopia* has two main concepts Stable State and Home Place. Stable State means the condition of an organic recycle system keeping the society ecologically balanced. And Home Place is equivalent for the word ecotopia which Callenbach emphasizes the importance of emotional ties among people and awareness of being a part of a community as well as nature.

Ecotopia is composed of the Greek components “ECO” and “TOPIA”, the English translations of “Home” and “Place” as in the preface of the book indicates (Callenbach 2004: the preface). But many readers and critics² of the novel misunderstand the word ecotopia as ecological utopia. When the readers understand the word ecotopia as Home Place as Callenbach intends, they will find the novel illustrates the possibility to realize a society maintaining commons with care.

Masami Kato (2013), who studies Callenbach’s works, points out that besides “Stable State” and “Home Place”, there are two major concepts of the novel, “bioregion” and “urban ecology” are key elements of Callenbach’s Ecotopian thought. “Bioregion” is considered as a geographical limit. Callenbach defines bioregional scale that within one “bioregion’s mountain boundaries live characteristic plants, animals, birds, insects, fish, and other inhabitants, adapted to the region’s climate, landforms, and soils.” Bioregional boundaries also could be a watershed, a basin, or a river valley (Callenbach 2008: 15-18). “Bioregion” determines the types of human activities by their ecological characteristics.

“Urban ecology” is a focal point of activities in Ecotopia. Callenbach’s message about “urban ecology” is that more than a half of world population resides in urbanized area in the 21st century; urban dwellers should act as a part of the sustainable society (2008 :139-145). So restoring “urban ecology” is vitally important for the sustainability of the Earth. Many Industrial cities have been planned as places for humans without consideration for human scale co-existence with nature. Moreover, cities consume energy, water, foods, and so on. Most of which have to be transported from outside. As a result, urbanization in nature tends to deprive people of sense of the “Home Place” and of ecology.

Callenbach illustrated the restoration of urban rivers and regeneration of urban commons in the chapter: “The Streets of Ecotopia’s Capital” in the novel *ECOTOPIA*. These rivers, which “had earlier, at great expense, been put into huge culverts underground, as is usual in cities, the Ecotopian spent even more to bring them up to ground.” Lining trees and creeks run along the main street of the Capital (Callenbach 2004: 12). The country is an organic recycling based sustainable society; there the problem of mass disposal from mass production in the industrial society is cleared. Therefore a large scale sewer system is no longer necessary.

He suggests the first step to lead to Ecotopia; a sustainable society is that people become aware of the sense of Home Place. They need to be aware of two conditions; the first is their lives greatly cause environmental degradation; the second is the present urban ecology is result of continuous human activities on the land from the past.

“The Sense of Home Place” means that people seize the place where they were born and raised or which is a livelihood zone as their intimate place. The main character of the novel *Ecotopia* finds his home place in Ecotopia, which was a foreign country for him. Also people

² For example; Shioda, H. (2008) ‘Ecotopia’ it’s Contradictions and Violence – Reading in Dystopia from Callenbach’s Ecotopia’ In Slovic, S. (ed.) *Ecotopia and the Environmental Justice Reader*. Koyo Shobo (in Japanese); Dunlap, T.R. *Faith in Nature; Environmentalism as Religious Quest*, University of Washington Press, Seattle and London, 2005 pp.98-99; Garreau, J. (1981) *The Nine Nations of North America*. Avon Books, New York pp244-286

call their favorite place as their second home place even if they were not born and raised there. It is close to a feeling of “Sense of Belonging to Other Places” which is used by a cultural geographer, Atsushi Naruse (2010: 78-91). Home is a word that is easily shared by old and young, man and woman, and all the people in any position. If people have a sense of home place, they want others to treat the place well.

2) A Field Workshop Method of “Finding Home Place”³

An unexpected encounter tends to make people aware of sense of Home Place. One of the opportunities people get inspired is when they have a chance to participate in environmental restoration and conservation activities in the urban commons such as parks, green areas, or water front areas. Here we see the method how people are led to share their sense of home place.

Toshio Kuwako, a philosopher who concerns environmental problems proposes a field workshop method of Finding Home Place. As he always visits the site and holds a workshop with various stakeholders in the field, he formulated the method while he was consulted to solve regional conflicts or to prevent disputes over planning of social infrastructure construction. The field workshop means that field work and workshop are not separable. Finding Home Place is a thought to lead a consensus-building when signs of conflicts or disputes over environment, townscapes, and landscapes are noted in the area (Kuwako 2007: 17-20). Through the field workshop, people become aware of values in their regions and recognize their present problems. Also the method of Finding Home Place field workshop is a tool to develop a social consensus about public works.

The Finding Home Place field workshop is different from public participation with limited stakeholders in the city planning processes in Japan. In order to build a social consensus, a facilitator holds the Finding Home Place field workshop with various kinds of stakeholders at the site of public works. Stakeholders are various kinds of people including government administrators who have interests and concerns for the city planning or public works. Through the field workshop the stakeholders rediscovered the value and the problems of their home place.

The basis of the Finding Home Place is Kuwako’s thought of “the Historical Profile of the Locale”. According to Kuwako (2012: 24-46), interests and concerns of ancient people are imaginable by observation of structures of rivers and mountains of the landscapes. Or “it is possible to grasp interests and concerns of people in the series of events of the past by analyzing the Historical Profile of the Locale. For example, an ancient god *SUSANOO* is “a symbol of nature of the land in Japan”. Namely, he is “the god who has threats and blessing of the nature”. Therefore Shrines which enshrine *SUSANOO* are built at the locations where people are able to evacuate from risks of water hazards.

According to Kuwako (2008: 12-17) the Finding Home Place field workshop is a method of Recognizing Spatial Values of Locale, and there are following, three structural elements.

1. *The Spatial Structures of the Locale*: to recognize the topographic frameworks. An important thing is to know the structures of water environment, such as rivers and seashores which determine spatial formation of elements.
2. *The Historical Profile of the Locale*: to analyze how past conditions have related to present situation based on the ecosystems and whole historical images of human life,

³ Finding Home Place is English translation of 「ふるさと見分け」 “Furusato miwake” in Japanese.

activities, and culture. And that includes examination of possibilities how present conditions will alter in the future.

3. *The Interests and Concerns of the People*: to grasp what kinds of interests and concerns people have. Grasping the interests and concerns of the people means to understand the reasons behind their opinions.

The method of Recognizing Spatial Structure of the Locale is a part of the “空間学” *the Spatial Studies*. Besides the method of Recognizing Spatial Structure, there is a method of Consensus-Building for social infrastructure maintenance to prevent, avoid and solve dispute, and a method of the Spatial Studying of Region in the Spatial Studies. Kuwako (2008: 9) classifies “a method to Recognize the Spatial Structure of the Locale” as a pragmatic method for the Spatial Studies.

The reason why “the method of the Recognizing Spatial Structure of the Locale” is named the method of the Finding Home Place is because various groups of people can easily understand the word Home Place and it leads people to participate in it. Two Positive effects of Finding Home Place field workshop are; one is a chance for the local people to rediscover strong ties to the place; the other is for people who do public works to understand the value of the area deeply. Through participating in the Finding Home Place field workshop people share the sense of Home Place.

Analysis of the Historical Profile of the Locale suggest that the site of public works in question is not a simple space as it appears, but is the space accumulated memories of various people over long time. And any human activities today will have lasting impacts on the future vision of the land. Through analysis of the Spatial Values of the Locale, participants in the Finding Home Place field workshop not only to know their Home Place in the long history of the Earth, but they would also find the value and problems of their home place in the present spatial structure. They must understand they are the ones who regenerate Home Place.

4. An outline of Nature Friendly River Management

1) Nature Friendly River Management

Ministry of Land, Infrastructure, Transport and Tourism, Japan (MLITT) defined the guideline of Nature Friendly River Management (NFRM) in August 2006 as follows. NFRM considers biota well growth environment a river originally has; conservation and creation of beautiful natural landscapes; contemplation of the nature of the entire stream; and harmony with people’s lives, history and culture in the region.

NFRM was issued under following circumstances,

1. The purpose of conventional river management was to flush massive volume of storm water quickly and safely by concreting river floors and banks with civil engineering. Nature Friendly River Works was based on the reflection on the result that conventional river management did not take ecosystems of the rivers and their environs into account.

2. MLITT issued a notification of “advancement of Nature Friendly River Work” (in 1989) suggesting to take good conditions many forms of life live in the rivers which originally have into account, and also to conserve and create the beautiful natural landscapes.

3. A New River Law (in 1997) which stipulates all river management plans should be based on Nature Friendly River Works was issued.

As a result, Nature Friendly River Work has led successful examples; on the other hand, it caused to produce stereotyped poor examples of the river restoration. MLITT had

established the NFRW review committee, and then decided on the guideline of NFRM incorporated opinions of the committee (NFRW Review Committee 2011:231-252).

Some of examples of the rivers restored by NFRM are; Itachi River and Izumi River⁴ are managed by Shinichi Yoshimura a river management consultant, while he was a city official in Yokohama; Kami-Saigou River⁵ in Fukutsu city and Hii River (Shimatani 2011) in Fukuoka city are mainly managed by Yukihiro Shimatani Laboratory, University of Kyushu. Yoshimura and Shimatani are pioneers who have developed NFRM technology, and were members of the NFRW review committee. They focus on the view points of people and interrelationship between people and the river in the basin.

NFRM requires river authorities' high capability. As in definition, the goal of NFRM requires not only civil engineering technology but also knowledge of geology, ecology, cultural geography. It requires facilitation ability to build a social consensus with people in the river basin. Each river has its own characteristics based on its bioregional condition. It is not proper to standardize the way of NFRM.

2) Facilitation for social consensus building of NFRM

One of the most challenging parts of NFRM is to build a social consensus. NFRM needs two different scales of viewpoints. One is a macroscopic view which overviews the entire basin. The other is a microscopic view to understand topography, springs, forms of drainage, ecosystems and lives of people, history and cultures at various pieces of site of the river valley.

An important aspect to focus on is relationship between microscopic climate and individual resident. An urban engineering researcher, Tomoki Takada (2013: 89-91) proposes a concept "Local (vicinal) Fudo". Takada understands that the concept of "Fudo (風土)" represents totality of a certain society and a locale based on climatic condition.

While he was facilitating the Tennou River NFRM project in Sadogashima Island, he needed a concept of Fudo segmented in a smaller area. That is how he developed the concept of "Local Fudo", which is associated with the climate and geographical characteristics and interests of people in a small area (Takada 2012)". For example, the fishermen who live at the lower course of a stream concern about deposition of sediments washed down by river restoration at the upper course of a stream; people who suffered from flooding think flood control important.

Since Local Fudo reflects diverse interests of people, it is a microscopic viewpoint to closely seize interrelationship between people and the river. In order to recognize Local Fudo in NFRM, participation of local people in the project is necessary.

5. The Present State of Zempuku-ji River

1) Urbanization and changes of rivers in Tokyo

Urban rivers running through the human-made environments experienced contemporary *Tragedy of Commons* in their Spatial Profile of the Locale. Let us exemplify the history of Momozono River in the modern era, which runs through the north side of Zempuku-ji River and used to be one of tributaries of Kanda River.

⁴ Itachi River and Izumi River are introduced in "Nature Friendly River Works Point Book III" NFRW Review Committee 2011)

⁵ Hayashi Hironori from Shimatani Laboratory introduced "Nature Friendly River Management on Kami-Saigo River" at Zempuku-ji Gawa wo Satogawa ni Kaeru Kai No.6 Action 2013.01.12

According to “Momozono Community News (2013), it was an agricultural irrigation channel which gathered streams in the country side. It was children’s playground filled with living things on the edges, in the water, and the adjacent field to the river before World War II. After the war, its population increased rapidly, which caused degradation of the river by disposal of garbage and household effluent. Besides, the river flooded from time to time.

According to Hydrologists Sinichiro Nakamura and Taikan Oki (2009), Tokyo Metropolis made a decision to divert Momozono River and other 12 middle and small size rivers to drainage by culverts in 1961, just before Tokyo Olympic. Momozono River was covered by concrete panels and became underground sewers in the 1980s

Kuwako (2005: 77) describes the changes of urban rivers as follows: spatial formation tends to emphasize on function, and urban space is altered to single functional space while it deprives space for multilayered locale.

2) The Feature of Zempuku-ji River



Figure 1 Zempuku-ji River Basin.

Zempuku-ji river is one tributary of Kanda river system. It starts from Zempuku-ji pond, runs 10.5km through Suginami-ward until it joins to Kanda river.

(<http://maps.google.co.jp/maps?hl=ja&tab=wl>)

Zempuku-ji River has its headwaters at Zempuku-ji Ponds in the westernmost of Suginami City. And it runs to southeast and divides the ward into north and south, then joins to Kanda River. The total length of the river is 10.5km and a half of it runs through or alongside various sizes of parks. For Example there are Zempuku-ji Park at the headwaters, two Metropolitan parks; Zempuku-ji River Green Area Park and Wadabori Park on the middle course of the river and Seibi Suginami City Park at the lower course of the river.

Mitsukuni Tsuchiya who knows about rivers in Tokyo worked for recommendation of a plan “Zempuku-ji River ‘to Create 「水鳥の棲む水辺」 “Waterfront For Waterfowls’ Habitat” in Suginami City. He points out three reasons Zempuku-ji River escaped from diversion to drainage by culverts. It has headwaters; it meanders; and it has springs. The springs never dry up all year around. Tsuchiya also introduces that the concept of “water garden” was created along Zempuku-ji River by the officers of Tokyo Metropolis who

seriously dealt with the environmental contaminations, pollution, and degradation of rivers. The water garden suggests people to walk on the healthy footpath along the river banks⁶. Positively Zempuku-ji River serves pleasant atmosphere. People enjoy jogging, walking dogs, and going on a picnic. Also they enjoy cherry blossoms in the early spring and green shade in the summer.

However, Zempuku-ji River has two significant problems. One is its river management has been done only for the function of drainage. The river bed was dug deeply, and the embankment work was done. Zempuku-ji River was hit by severe storms twice in 2006. There was especially heavy localized downpour in September, hourly maximum rainfall: 100mm per hour, about the upper course of Zempuku-ji River and other tributaries of Kanda River. It caused inundation damage to more than 3000 houses in the west side of Tokyo, including Suginami City. It was named 2006.9 floods. As countermeasure, Tokyo Metropolis No. 3 Construction Office: Tokyo No.3 Office, the river authority of the upper streams of Kanda River Basin, carried out embankment works for 490m of two sites of Zempuku-ji River. It was designated as devastating disaster areas between 2006 and 2010. Tokyo No.3 Office plans to embank another 4.7km long in the middle course of the river and to construct underground storm water reservoir to store 34,000m³ in 2013 (Tokyo No. 3 Office 2012: handout).

According to Nakamura and Oki (2009), the second problem of Zempuku-ji River is a combined sewer system, which was hastily introduced just before Tokyo Olympic in 1964. The combined sewer system combines sewage, sludge and household effluent and storm water when it rains, because the storm water flows over the surface of the paved ground and flows into the sewer system and joins into sewer.

According to a group, 「緑の善福寺川を愛でる会」 “*Midori no Zempuku-ji Gawa wo Mederu-kai*”⁷, when rain fall is in excess of 10mm/hour, with the combined sewer system, the storm water increases the amount of sewage 28 times much more than usual. 1/28 of sewage goes to the sewer treatment facility. 27/28 of amount of sewage is discharged to the river from 68 overflows. The sewage discharged into the River is brownish color and smells bad.

Moreover after the sewage is drained, toilet paper contaminated with dirt is found on the river bed and at the stems of the plants. Clumps of reeds in the river remind us of the sense of “water garden”, but the toilet paper presents us the sheer fact that sewage is discharged into the river.

Two problems of Zempuku-ji River produce two distinct interests. The residents who suffered from flooding want the local river authority to carry out the river improvement as soon as possible. On the other hand, people who are concerned about the combined sewer system worry that the betterment of a sewer system may be delayed because the flood management has higher priority.

3) The problems of NFRM embankment to Seibi Bridge area by Tokyo Metropolis

The embankment work for 240m long in Seibi Bridge area represents two typical problems of Zempuku-ji River and the difficulties of NFRM work in Tokyo. Tokyo No.3

⁶ Tsuchiya, M., “A Lecture of Zempuku-ji river” held by “Let’s change Zempuku-ji River into *Satogawa*” in Asagaya, Suginami City 2012.06.28

⁷ Suzuki, T., *Midori no Zempuku-ji Gawa wo Mederu Kai* (緑の善福寺川を愛でる会) Interview conducted by Masami Kato. Also Kato received a copy of Suzuki’s presentation slides “The Present Condition and a measure of Zempuku-ji River” (in Japanese) 2012.02.23

Office, the river authority of Zempuku-ji River designated the area for devastating disaster embankment work. In this case, it put too much emphasis on flood control and lacks consideration to aesthetic aspect of embankment; while, Seibi Bridge embankment was supported to considerate. It was an advanced attempt of NFRM in Tokyo.

It is disappointing that Seibi Bridge area NFRM has been criticized by people who are interested in Zempuku-ji River. Ayako Ichihashi⁸, a member of Suginami City Assembly, pointed out the problems as follows; the first problem was the concave caused a backwater because the river authority created an artificial concave inside of meandering corner. The second problem is in spite of a fact that the concave section ought to be designed for a water garden function, people cannot go to the water side because a fence was placed along the shore line for safety reason. The third is that a big mouth of the combined sewer system overflow is placed across from the concave area, while makes the view unpleasant. Ichihashi lamented that the third problem could have been avoided if the river authority and the Sewer Bureau communicated better with a little more sensitivity.

According to Kei Ota (2012), a graduate student of Geography in Tokyo Metropolitan University, Tokyo No.3 office held workshops with residents four times between the mid January and the mid March 2008 for the process of the Seibi Bridge Area NFRM project. Ota did a survey by questionnaire about the workshops at Seibi Park which is located next to Zempuku-ji River. Only 17% of respondents knew about the workshops; merely 12% utilized a circular bulletin as a source of information from Suginami City. The result of the survey indicates lack of efforts to outreach people who should have participated in the workshops.

Then, a question arises what range of stakeholders should be outreached in order to hold meaningful workshops for embankment of 240m long around Seibi Bridge area. It is only a short section of a river of 10.5km long. Although it is a part of the river, a section of restoration may influence the other sections in which interests of the stakeholders are wildly scattered. As the guideline of NFRM suggests considering harmony with people's lives, history and culture in the region, workshops announcement should have been given to the people in wider range.

According to Shimatani (2011), who facilitates the Hii River Citizen Conservation Committee, "they are residents in the basin to be sure, all persons who are interested in the future of the basin. For example, residents, researchers, administrators, constructors, private companies, politicians are all citizens," that is, people in a much wider range than ordinary stakeholders in a limited area.

Local Fudo suggested by Takada exists in the basin in various ways. An important thing is people with different Local Fudo in the basin participate in the workshop. Then it becomes a place where various stakeholders encounter and recognize the differences among them and share their interests and concerns.

4) The Blessing Point and Problems of Zempuku-ji River

The blessing point of Zempuku-ji River is that it still exists as a river with springs and green areas, but the river and the green area as commons do not maintain good quality of urban ecology. On the other hand, the serious trouble of Zempuku-ji River is that it flooded easily once in a while with a concentrated downpour. Tokyo Metropolis' office flood control

⁸ Ichihashi, A., Interview conducted and memorized by Tomoki Takada and Masami Kato "20120118 Hearing to the citizens activities along Zempuku-ji River," at the Office of the Council for Energy, Suginami City, in Ogikubo, Suginami City

measures are to dig the river bed deeply to flush a large amount of water in a short period and to construct underground reservoirs in the Zempuku-ji River Green Area Park, Wadabori Park, and the Rink Road No. 7. In addition, Tokyo Metropolis' office is considering more rapid flow of storm water to Zempuku-ji River since the chances of concentrated rainfall increase recently (Tokyo No.3 Office 2013: handout). The spatial formation is not considerate well and facility of drainage function and water garden function are placed side by side.

The reason of a large volume of storm water running into Zempuku-ji River is because the city planning causes artificial water circulation. Rainwater is not absorbed by trees or into the soil. It forms flows on the paved ground, into the sewer system, and eventually into the river. The storm water and sewage is stored in the large scale reservoirs, and then pumped back up to the river. The urbanized and man-made environment of Zempuku-ji River Basin controls storm water artificially, and clogs natural water circulation.

6. A Citizen activity of NFRM on an urban river: An Urban SATOGAWA Project

This Chapter reviews a preparation activities of a case of NFRM on a urban river project, 善福寺川を里川にカエル会 “Change Zempuku-ji River into SATOGAWA”, from 2011.10.05 to 2013.04.06. The first part is a period of the beginning of the project. And the second part is the period of preparation activities for a full scale activity starts in April 2013.

1) The beginning of the Project

(1)The proposal of the Project

The project started on 2011.10.05 when Shimatani visited Kuwako Office, Tokyo Institute of Technology with Kazue Kagawa who is an editor of a magazine “水の文化” “*Mizu no Bunka*” : culture of water, and Ritsuko Suzuki who is an executive director of “*The Life Design Center, Setagaya,*” and knows well about NPO activities.

They proposed that they wanted to make rivers in Tokyo much more natural based on NFRM by citizen activities. It is important to challenge NFRM in Tokyo. Zempuku-ji River has a green area and there is space to widen the river. The embankment work of Seibi Bridge area was done by NFRM for the first time in the central part of Tokyo, but its outcome was not satisfactory. And it is necessary to show a good NFRM example in Tokyo.

Then the project idea was decided as “it should be the symbolic project to make Japan be spirited — an urban SATOGAWA project,” the basic policy is to show “problems are solved by discussion” and the goal of the project is to establish the Zempuku-ji River Model. They planned to invite NFRM engineers, young researchers, and a various citizen groups along Zempuku-ji River and decided to start a full scale activity after about one year preparation period⁹.

(2)The Finding Home Place field workshop along Zempuku-ji River

The project applies the method of Finding Home Place. The group conducted the first Finding Home Place field workshop along Zempuku-ji River on December 17, 2011. The field workshop tour started from Suginami City Hall toward south. The first stop was a Shrine named 須賀神社 “Suga Jinja”. Then they descended the slope to Zempuku-ji River Green Area Park and arrived at 天王橋 “Tennou Bridge” crossing over the river at the point of meander. They inspected the upper stream and downstream of the river, the right bank and the left bank, and in the green area.

⁹ Takada, T. “11.10.05 Restoring Zenpuku-ji River Meeting Minutes” 2011.10.05 At Toshio Kuwako Office, Tokyo Institute of Technology

The field workshop revealed followings;

1. 須賀”Suga” and 天王”Tennou” are related names to *SUSANOO*, the god of water control and disease.
2. The river course shows it used to meander, but the channel was modified by concrete, stones and iron piles. Accordingly it loses natural river environment and ecosystems.
3. The river is fenced off from the park and it detaches human activities from the water front.

Through the Finding Home Place field workshop the members of the project found some evidences which shows Spatial Profile of Locale. They felt the possibility that the river may be restored to have better quality by NFRM.

(3) Forming A Core Group and Commencing the Preparation Period 2011.12.17~2012.3.31

After the trial of Finding Home Place field workshop, the project group then decided to commence the preparation activity, and named the project 「善福寺川を里川にカエル会」”*Zempuku-ji Gawa wo SATOGAWA ni Kaeru Kai*” or in English “Change Zempuku-ji River into *SATOGAWA*¹⁰”. And it picked up the nickname 「善福蛙」”*Zempuku Kaeru*¹¹.”

Also the project group decided that they plan of following things during the preparation period¹²;

1. To apply the Finding Home Place Field Workshop;
2. To invite the river related activity groups and individuals in the Zempuku-ji River Basin;
3. To open a home page and mailing list to send information.

And they confirmed following rules;

1. To take slow but steady approach;
2. To enjoy the processes;
3. To keep good relationship with local citizen groups.

Kuwako who is a philosopher as well as a poet composed a poem of 「善福蛙」”*Zempuku Kaeru*,” and showed the project members how important it is to enjoy the activity.

The original members became a center of the project, which has added new members to form a core group gradually.

¹⁰ It means “a Project tries to change Zempuku-ji River into the river in the home place” in English. And *SATOGAWA* means the river runs through country side, and it implies to restore an urban river with full of nature.

¹¹ The sound of “Kaeru” means “change” 「変える」, “return” 「還る」, “hatch” 「孵る」 as well as “frog” 「蛙」 in Japanese.

¹² Takada, T. “20111217 Zempuku-ji River Field Workshop Minutes” 20111217 Zenpuku-ji River Green Area Metropolitan Park and Suginami City Citizen Activity Meeting Room

2) The Activities during the preparation period 2012.3.31~2013.4.6

Chart 1 shows the major activities of the project during the preparation period.

No	Events	time	Activities
1	The Core Meetings	7	To plan and make decisions
2	The Zempuku Kaeru Action	6	Original planned activities
3	Lectures and inspections	3	Special studying
4	Participating to local events	5	collaboration with local group
5	Suginami City IOGI Public Elementary School	6	Observing & Supporting Classes
6	Suginami City IOGI Public Elementary School	1	Visiting Lecture
7	Zempuku-ji River sponsored by Suginami City	1	Invited for a presentation
8	The upper stream of Kanda River Meeting held by Tokyo No.3 Office	3	observing and Attending
9	The Explanatory Meeting by Tokyo No.3 Office	2	Attending

(1)The Fruit of the Preparation Activities

Learning from the Local Activities

One of two highlights from the outcomes of the preparation activities of the project on site of Zempuku-ji River is to participate in *the 13th Zempuku-ji River Forum*: the Forum as one of the citizen groups on December 2 2012.

Chart 2 is a list of groups in the Forum.

	Participated Groups	Main activities	Information
1	The Kanda Gawa Network	Integrated studies about Kanda River	Administrative Information about river management
2	Midori no Zempuku-ji Gawa wo Mederu Kai	Environmental Education and Studies	The problems about the combined sewer system
3	Environmental Counselor Association	Environmental education	Holistic approach to restore Zempuku-ji River Basin
4	Suginami Environmental Network	Management of Environmental information Center and Environmental education	Environmental Education in Public School
5	IOGI School and The support Center	Environmental Education	Children environmental education about the river
6	Seikatu-sha Network	Proposal of an ecological life style,	Local ecosystem observation
7	MOMOZONO Yusui Tankentai Network	Regeneration of MOMOZONO River	Local historical studies and conservation ecosystems. Its mailing list is a center of information
8	Biotope Network Suginami	Building a Biotope in KashiwanoMori	To grasping the local ecosystems
9	Wadabori Bird Watch	Bird watching and environmental conservation	Environment and ecology information around Wadabori

There were more than 80 participants with various kinds of activities and a wide range of age groups in the Forum. Each group introduced their activities and then exchanged their opinions, interests, concerns and hopeful futures about Zempuku-ji River. There are nine groups in the Forum. Their activities are a half overlapped and a half independent and

separate. Many of the participants in the Forum belong to plural groups. Groups and individuals activities form overlapped multiple layers of networks. Each group offers different kinds of information and opportunities for activities. The project members have learned various things about Zempuku-ji River from them.

A Symposium: Sugunami City "Zempuku-ji River 'to Create "Waterfront for Waterfowls' habitat'"

Another highlight of the project activities is we were invited at a symposium of Sugunami City "Zempuku-ji River 'to Create "Waterfront For Waterfowls' Habitat'" in January 26, 2013, and to deliver one of three keynote speeches and join a Panel Discussion titled "Zempuku-ji River for tomorrow". Besides our speech, one group of the sixth grade students from Sugunami City Iogi Elementary School: IOGI School made presentation about "what has been learned from cleaning Zempuku-ji River". And a first grade junior high school student introduced his elderly companions whom he met in bird watching activity. Sugunami Biotope Network and Wadabori Bird Watch Group helped him make a good speech. Participating in the symposium made the project of "Zempuku Kaeru" well known in Sugunami Ward.

There were two impressive scenes at the symposium. One was that the sixth graders of IOGI School naturally used the words of *SATOGAWA*, or the river in *FURUSATO* which means a home place in their presentation. Another is a brass band from Sugunami City Dai Ni Public Elementary School: Sugi-Ni School played "*FURUSATO*" for the last number with their comment that "Zempuku-ji River is the river runs through our Home Place." Sugi-Ni School is located in the middle stream while Iogi elementary school is located in the upper stream. Even Zempuku-ji River runs the middle of urbanized area; elementary school children think it as their river of Home Place. We were convinced that the urban rivers could be regenerated as commons for those children who were born or spent their childhood.

(2) IOGI School Children and the Zempuku Kaeru Project

The Environmental Education with Zempuku-ji River

At the end of this chapter, we would like to mention about IOGI School. Members of the project observed and supported children's activities with the river in June and August.

The School is located in the upper stream area of Zempuku-ji River. The river runs through the school campus, and is a familiar environmental education site for the students. The third graders walk along the river inside of the concreted banks. The fourth graders are taught geography and history of Zempuku-ji Ponds and River. And they listen to an elder who knows about their community well in another lecture. The fifth graders examine the water quality and research the condition of biota in the river. And then the sixth graders do two things in their last year of the school.

They clean along the river sidewalk and the Zempuku-ji Park once a week. It becomes almost tradition that all the sixth graders have been cleaning the river for last three years. New sixth graders are proud that they take over "the river cleaning" from their seniors. They go into the inside of river banks and clean the river. The students experience the problems of the combined sewer system closely. The odor from a big mouth of the combined sewer system overflows, and clean the once melted toilet paper tangled to the stems of reed grasses. And then they did a group research about their river cleaning along Zempuku-ji River.

The Presentations of the Sixth Graders

The sixth graders made presentations "What We Learned from Our River Cleaning" at the Forum in December 2012 and at the Symposium in January 2013. While they were preparing their presentation, they inquired the project several questions. They felt the

problems of the river system too huge for them to solve. In order to inspire them Shinichiro Nakamura, one of the young researchers visited the school and gave them a lecture about problems of urbanization and modernization of the river management.

The sixth graders and grownups such as teachers, IOGI School Supporters, Sugunami Environmental Network and the project members shared the information and problems of Zempuku-ji River, which should be solved in the future. According to Tatsuya Sakaibara, Sugunami Environmental Network, they are encouraged to know that grownups have the same notion, “we want to change Zenpuku-ji River into *SATOGAWA*¹³”.

In their presentation the sixth graders pointed out; they found most of litters such as cigarette butts are thrown by grownups. Also they proposed two things; one is to administer a conversion from the combined sewer system to the separate sewer system; the other is for residents in the basin of Zempuku-ji River try not to do nonessential laundry and not to pull out a bathtub plug in rainy days. Their proposal of “non rainy day laundry” is not only to keep the river clean but also is a life style suggestion, which lead us to a sustainable society.

7. Discussion and Conclusion

This study aims to answer the question whether NFRM in densely populated urban area contributes to the regeneration of urban commons. In order to answer it, we focused on the word “*FURUSATO*” or “Home Place” in English to see if those are suitable key words to express a vision shared by various kinds of people. Firstly, we examined Callenbach’s thought of Ecotopia, which suggested that cities can be much more ecological and awareness of a sense of “Home Place” is the first important step for city dwellers to restore urban ecology and regenerate urban commons. Secondly, we reviewed Kuwako method of Finding Home Place field workshop. Important points of the method is to invite not only the residents in the area, but also all the stakeholders who have interests and concerns to rediscover the local values and the problems for better social consensus.

As a case of NFRM practice in an urbanized area, we reviewed the activities of *Zempuku-ji Gawa wo SATOGAWA ni Kaeru Kai* for 18 months from preparation work of the project on Oct.5.2011 to the commencement of full scale activities in April 2013. We joined in the project to examine whether the method of Finding Home Place field workshop is applicable to NFRN practice in an urban area.

The members of the project tried many things; the Finding Home Place field workshops, excursions with specialists, discussion with citizen activity groups to identify the values and the problems in Zempuku-ji River Basin. The blessing point of the river is that it still exists as a river with springs and green areas, however there exists two problems; sewage overflows into the river when it rains, and the river floods from time to time with torrential rains.

The Seibi Bridge Area embankment project by Tokyo No.3 Office should be evaluated as the first NFRM example however it contains following conflicting factors;

1. NFRM needs participation of a wide range of stakeholders and intense workshop for a comprehensive plan. It is the deliberate and rather time-consuming process.
2. While, after the area’s designation for the devastating disaster embankment project, the Seibi Bridge Area project was conducted as a counter-measure for future disaster

¹³ Sakaibara, T. Presentation about “Efforts of Sugunami Environmental Network and Environmental Education with Zempuku-ji River at Sugunami City IOGI Public Elementary School” at Zempuku Kaeru Action 4 in Ogikubo, Sugunami City 2012.10.13

and it needs to be completed in 5 years. It is quite natural for the suffered residents that they want the project completed as soon as possible.

In terms of disaster prevention, speedy execution of NFRM is necessary; however without participation of various stakeholders through rather time-consuming consensus building, the outcome induces various criticisms.

For the pragmatic solution of two conflicting stances, we need to approach the problem from wider viewpoints with participation of various stakeholders in ordinary time.

An inundation is not only an area problem but a problem of sewer systems in a broad area, which gather storm water and discharge it into the river. In other words, river engineering takes heavy load of distortion which has been produced by artificial water circulation in the city. River improvement must not be only a measure against an inundation. We need to consider the problems of the land use and city planning of the basin from more comprehensive viewpoints.

The purpose of the urban SATOGAWA project is not only for betterment of a river landscape, but it is also for a nature friendly river management for the entire river basin. Through 18 months activity the project has found there are many evidences of spatial profile of locale along Zempuku-ji River and people have developed their sense of Home Place through its daily activities. We found the signs of possibilities of NFRM in river managements in urban area.

We conclude NFRM on urban rivers will contribute a regeneration of urban commons, however it is challenging and it has to go through time consuming process. We should try to start from small and limited area which maintains the characteristics of the commons such as rivers, green areas, and parks. A sharing a sense of Home Place among children and elders, men and women, and many different groups of people is one of the important factors to regenerate urban commons through NFRM.

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