

World Habitat Day, 3 October 2022

URBAN RIVERS: connecting cities, people and rivers

Summary of Presentations



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The event *Urban Rivers: Connecting people, cities and rivers* was organized by Habitat Norway, UN-Habitat, and the Norwegian University of Science and Technology (NTNU).

It took place in the Polytechnical Association, Oslo, on 3 October 2022. Approximately 350 people registered online to participate and there were 50 people present physically. The Youtube video to date has 700 viewers. The video can be found on Habitat Norway's Youtube channel: <https://www.youtube.com/watch?v=alJg1O-zccc>.

The webinar is part of an ongoing process to build a community of knowledge and practice, PEARLS, initiated by Prof. Dr. Peter A. Gotsch from NTNU.

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Introduction

Erik Berg

Chairman of the Board, Habitat Norway

The event started with an introduction by Erik Berg, the chairman of Habitat Norway. In his words, the event aimed to discuss past, present, and future relationships of cities, rivers, and people, in a local, national, and global context. Mr. Berg elaborated that the confluence of natural drainage ways and low-income neighborhoods makes the river a critical and political battleground for rights to the city and a crucial interface for social, economic, and ecological resilience which is compounded by climate change impacts. Many top-down efforts to remediate riverfronts have been met by protests. Residents living close to rivers have critical knowledge of local risk, mitigation, and adaptation measures. At the same time local and small-scale river remediation projects are not often carried out with a holistic understanding of watershed dynamics, infrastructure, housing needs, land policy, or flood risks, so navigating these challenges is a key challenge for cities and the voice of the local community needs to be at the forefront of this conversation. This event will discuss bridging these divides and bridging culture, art and storytelling alongside participatory planning. Five cases will be introduced during this event from Oslo, Norway, Solo, Indonesia, Nairobi, Kenya, Kathmandu, Nepal, and Belo Horizonte, Brazil. Even though these contexts are very different demographically, geographically, etc. they have intriguing similarities and needs and important lessons on equitable climate-responsive and inclusive urban development.



The following are notes summarising the respective inputs:

Marianne Borgen

Mayor of Oslo

Marianne Borgen is the mayor of Oslo and a long-term politician of the Socialist Left Party. She obtained her degree in sociology from the University of Oslo. The mayor is concerned that Oslo should be an inclusive and good city for all children to grow up in and has been working towards this goal for 25 years nationally and internationally.



Photo: Sturlason / Oslo Kommune

Ms. Marianne Borgen, the current mayor of Oslo stated that, in these troubling times, it's important to come together to make cities more human and climate-friendly. The City of Oslo would like to be an active part of the rivers initiative (PEARLS), which this event is a part of. The industrial revolution in Norway started along its rivers. In the 1840s several waterfalls were harnessed to drive Oslo's explosive growth economically and population-wise. 150 years later the brown agenda has shifted to a post-modern green and blue one. The city of Oslo has worked for the past 30 years to modernize its waterways. Altogether there are 10 rivers and streams in Oslo and there is an ongoing process of creating recreational and ecologically-sustainable riverbanks. The mayor also thanked NGOs for their political presence that pushed the implementation of Nature-based Solutions and also for their creativity, and their advocacy for vulnerable groups. Alongside the riverbanks, we can also find

places of shadow where crime and drug abuse prevails. But instead of preventing access, the socialist left party advocates for opening up these areas and assisting these vulnerable groups to become parts and parcels of social behavior. Oslo's experience can be a lesson to be learned from, however, the solutions must be contextualized. There's a need for dialogue and sharing of experiences around the globe. Ms. Borgen also highlighted that local governments along with other entities should be part of this alliance particularly to promote the translation of theoretical sustainability concepts into applied practical policies and implementation in urban environments.

After the opening address of the mayor Ellen de Vibe expressed a vote of thanks to her for always having pursued an inclusive city approach in her work pushing "the blue agenda".

Raf Tuts

Director of Programmes, UN-Habitat

Raf Tuts is the Director of Programmes at UN-Habitat, based in Nairobi, Kenya, where he is overseeing UN-Habitat's overall thematic work and field operations. He joined the United Nations in 1995. Earlier assignments with UN-Habitat included his role as Coordinator of the Urban Planning and Design Branch, focusing on promoting compact, integrated and connected cities that are inclusive and resilient to climate change. He also served as Acting Coordinator of the Housing and Slum Upgrading Branch, Chief of the Training and Capacity Branch, and Manager of the Localising Agenda 21 Programme, working on strategic and action planning in secondary cities in Kenya, Morocco, Vietnam, and Cuba. Before joining UN-Habitat, he worked at the Department of Architecture, Urbanism, and Planning at the University of Leuven and the Housing Research and Development Unit at the University of Nairobi. In 1985, he obtained a Master of Science degree in Architectural Engineering from the University of Leuven, Belgium. In 2016, he was awarded the title of Honorary Professor at his alma mater university.



Photo: UN Habitat

Raf Tuts spoke through a video message on behalf of Maimunah Moh Sharif the Executive Director of UN-Habitat. According to him, rivers are very important as they provide water, food, and nutrients but unfortunately, they are exploited. The sustainable development goals (SDGs) that can be addressed through building resilience against rivers are 6,11, and 13. He emphasized the importance of the collaborative approach and praised initiatives such as PEARLS. He also mentioned that UN-Habitat is committed to helping realize these goals. [A transcript of the entire speech is available upon request from PG and JM]

Peter A. Gotsch

Department of Architecture and Planning, NTNU

Peter A. Gotsch is Professor at the Institute for Architecture and Planning, Faculty of Architecture and Design at NTNU. He has been working on questions of sustainable urbanization in an international context for more than 25 years, constantly seeking to link research, practice, and learning. In collaboration with UN-Habitat and with support from Habitat Norge, Peter is currently developing a new community of Knowledge and Practice on People-Centred and Resilient Spaces Related to Urban Rivers (PEARLS).



Peter Gotsch, professor in sustainable urban planning from NTNU, introduced PEARLS as a new community of knowledge and practice and an emerging network for urban rivers. PEARLS is an open-source platform. The previous event of PEARLS was at World Urban Forum in Katowice, in July 2022. The following case studies are not research papers but hands-on experiences from the field that we can learn from. The focus of PEARLS, based on the partners' expertise and interests, is public space. He believes that the rivers should be considered a public spaces and commons and that they also have emotional attraction, among others. For example, most people would not mind biking a longer path if it was alongside an attractive river. PEARLS will help balance the social and environmental goals and to identify joint opportunities, as they can be contradictory. Peter closed with the remark that a major lesson is that transforming a river will take a long time and that it consists of many smaller steps, but it is worthwhile. This will also be presented by the case studies of today's session.

Key Note Speech

Terje Tvedt

Professor, University of Bergen

Professor Terje Tvedt is a Norwegian academic, author, and documentary filmmaker. Tvedt is presently a Research Professor at Norway's National Library and has previously been a professor in history, geography history and development studies at the universities of Oslo and Bergen, Norway. He has also been a Guest Professor at the University of Cambridge, England. Tvedt has published extensively on world history and water, colonial history, and the international development aid system. He has also written on the Norwegian modern history of ideas with an emphasis on dominant worldviews in the era of development aid. His books on Norwegian history have created many discussions and great public interest in Norway. His books have been translated into a number of languages.

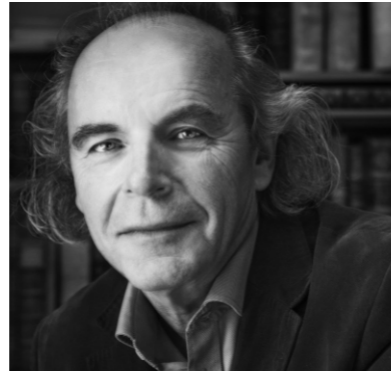


Photo: Litteraturhuset i Trondheim

Wikipedia. 2022. "Terje Tvedt." Wikimedia Foundation. Last modified June 9, 2022. https://en.wikipedia.org/wiki/Terje_Tvedt.

Terje Tvedt was delivering the main keynote message. He began his talk by discussing the scientific approach inherent in the text of The New Urban Agenda by the UN. He highlighted and questioned the conceptual certainty of the document's descriptions of reality. He quoted how this document presents what it calls "a paradigm shift" in urban planning and how it is based on what it calls "the science of cities" and even "universal" standards and principles for city planning. And this new urban agenda was to be adopted by many without reservations. Tvedt asked: If The New Urban Agenda has really solved all these questions and in a new urban

paradigm, what's left for others to do?

Tvedt answered his own question by arguing that this urban agenda discusses water planning and city development superficially. When it comes to the water-urban nexus, there is therefore a lot left to say. Since all cities are connected to waterways in one way or another and must solve the problem of water supply and sewage to survive, the importance of water in shaping cities has somehow been relegated to the margins in many development discussions; the tradition has to a certain extent been water-blind. One of the many examples that Professor Tvedt touched upon was the inventor of the term

"Urban Revolution", Gordon Childe. He mentioned in the 1930s 10 factors that describe a city, and the water issue was not one of them; he left it out. Tvedt discussed some of the scientific and conceptual traditions that made this perspective logical. He also assessed the importance of the idea that a city was a place where humans were liberated from the force of nature, and hence natural issues, like water, were fading into the background. He also mentioned the influence of postmodernism in the 1980s and 1990s which argued that nature is a social construct rather than physical geography. Tvedt also showed that the role of water is not always properly understood in discussions about urban development. For what is water? In textbooks, water is generally described as a natural phenomenon. But water is unique in the sense that it is basically the same chemical and physical substance in nature as it is in society. You can't find any other natural resource that operates in this same way as water. If you eat an apple, the apple disappears. If you use a tree to make newspapers or nylon stockings, the tree is no longer a tree. These natural resources are no longer natural, they have been transformed. But the water never disappears. It, again and again, reappears as itself, as pure water. At the same time; water is the most social thing, since it is everywhere in society, within us, between us, running through our bodies, houses, streets, etc., etc. Tvedt's point was that how one sees and defines water, defines how one would develop a city.

We need an analytical framework that is studying and understanding both the local hydrological cycle in the city context and the local "hydrosocial cycle", that is, how the water cycle is affected by urban life and urban needs. Tvedt argued for a research approach that tries to study and understand the interconnections and confluences between

the two types of water cycles and how they are interconnected.

Rivers in urban areas are not natural and are engineered in one way or another, so we shouldn't think about it as the restoration of nature but as a modern approach to engineering water, again, and for other purposes. Tvedt argued that looking at urban rivers in this more realistic, historical way, gives more opportunities for restoration than thinking that one is restoring nature, which in most cases is an illusion, anyway

Another paradox, you can destroy a river but you can't destroy water, water is inherently sustainable. For example, at the Thames River in the 19th century, the city authorities had put up signs that said that if you took a cup of water from the Thames, that would be a cup of death. Now, 150 years afterward, people are fishing there, so because water is sustainable in itself it was possible to restore the river. It gives reason for optimism to know that water gives you a new chance again and again and again. But on the other hand, as control of water is to control life, it brings great power and much responsibility.

We need to develop research strategies within social sciences that fully integrate these ideas about water, how it has changed over time, and from society to society: its physical form, the human landscape, and how people think about it. In the future the gap between the supply and demand of water will increase so that the megacities and city planners will be forced to take water into the centre of the planning universe. Therefore, conceptual discussions will be helpful to enlighten the understanding of city development and when the time comes, we don't have to rush to the solutions, thinking that they are scientifically proven, while they will forever be based on political, economic and normative arguments.

Case Studies

OSLO, NORWAY

Ellen de Vibe

Consultant, strategic advisor and public speaker, Urban Vibes

Ellen de Vibe is qualified as an architect and urban planner. She has worked, for the last 20 years, as director of The Planning and Building Services Agency (PBE) in Oslo. Among others, She headed the PBE's strategic planning work for Fjordbyen, Grorudalen environmental improvement area, and the remodeling area of Hovinbyen. As head of PBE, Oslo Municipality, she has actively contributed to the development of quality guidelines for public spaces & meeting places, outdoor areas, apartment standards, and blue-green factors. She was also the co-initiator of the 10-year development program FutureBuilt. The program's goal is to construct 50 model projects for passive / plus housing and urban development projects with good architecture for good living conditions.



Photo: Tom Kolstad / Aftenposten

Oslo is part of the C40 Cities Climate Leadership Group and climate budgeting network. And climate management is part of Oslo's fiscal budgeting (a reference to the Climate Budget 2022 document.) Our focus needs to, however, not just be on urban rivers but rural rivers as well, river management means climate management.

Rivers structure the urban landscape. The Oslo park strategy from 70 years ago has been the basis for today's management and for about 30 years, the city has been working on reopening the rivers. Waterways in cities can sure cause many risks but especially today they are the bases for added green values. For the last 10-15 years we have been focused on

using nature-based solutions, for example purifying the groundwater using nature in Groruddalen. Or in another example, some years ago we were working on a lighting project in the CBD of Oslo, but along the river, if we didn't have the dark night then the fish wouldn't reproduce so it's not just the human being we have to cater for, but the nature as well.

Apart from the natural perspective, the human perspective is also important. Akerselva common space is now an important recreational urban space in Oslo now. The method of appropriation in Alna river banks includes civic, multiethnic, and cultural activities. For instance, there was an

exhibition where objects of immigrant women were exhibited on a big tree, and each year they have torch hikes in Autumn or an anti-bullying concert. She believes that these initiatives increase livability and equity and the recreational areas should be accessible to everybody.

Another aspect is safety, Anna Falu says that safe cities for women are safe cities for all. But riverbanks are not always safe, they may be quite dark, and they may be vulnerable to drug dealings and different kinds of problems. An example is Bjerkedalen's multi-functional park with an open landscape that was designed through a participatory practice with immigrant women. They said they didn't

feel safe in the forested green belt of the city so to mobilize them this landscape was architected.

De Vibe then mentioned a question that was important to her as well since she heard it in a Ph.D. presentation by Angela Ruth Kivle:

"...Urban greening is a deeply political project grounded in technocratic principles and the naive apolitical assumption that greening will unassisted result in both more just and prosperous cities..." *Annals of the American Association of Geographers* 29.04.20, page 1745.

She was taken aback when she first heard this quote, as in her mind she thought greenery is always good. The research shows that when you have more greenery close to dwellings, real estate prices increase. So the question is whether we are creating more equity by "rewilding" the cities. Of course, we won't stop the opening of rivers but do we have a good and adequate strategic approach for counterbalancing these types of gentrification?

She then moved on to the methods adopted by the Oslo municipality in different projects. For example, one document is the Norm for Blue/Green Factor, this is about prescribing a differentiated coefficient for different areas of the city for how much and what type of greenery should be there. So it can guide the developers. She thinks these kinds of quality guidelines are important for handling land and rivers. In conclusion, she emphasizes long-term persistence, co-creation, especially with vulnerable groups, and combining temporary and permanent solutions together.



Alna riverbanks, torch hikes, and anti-bullying concert



Bjerkedalen's multi-functional park

BANJARMASIN AND SOLO, INDONESIA

Rizqa Hidayani

Program Manager, Kota Kita Foundation

Rizqa Hidayani is an urban planner with a focus on building inclusivity and resilience in the development of cities. She believes that the development process should accommodate the voice of - and brings benefits too - the most vulnerable groups in the city. Currently, she is a senior program manager at Kota Kita and has been engaged in urban participatory planning activities and research for more than ten years - in the fields of climate change adaptation and resilience, community development, and informality.



Rizqa Hidayani began by introducing Kota Kita and then she talked about experiences from Solo and Banjarmasin in Indonesia. As in many other parts of the world, rivers in many cities of Indonesia are the main connection and transportation channels. Rivers attract economic and social activities. But riverbanks face many challenges, the dense urban settlements often lack access to basic services, lack space for social interactions, and are prone to natural hazards. There have been many government programs that target these challenges but the need for public spaces is often overlooked. Riverbanks have the potential to become active public spaces and benefit the quality of life of dwellers. In many cases, the land is already used by the local community and is owned by the government, many existing programs can be used as entry points, and environmental, social, and economic benefits can be combined. Banjarmasin is called the city of thousand rivers and it's their first co-design and participation experience. The main

activities of the community are centered around the rivers. In 2011-2013, Kota Kita worked with a group of residents in Sungai Jingah, which is a densely populated and low-income neighborhood. The main problem there was water pollution.

An intensive co-design process was carried out with the community to identify the challenges and design a new public space. The design was implemented and after almost 10 years, it's still used as supposed. The key to success in this small-scale public space co-creation is first, the meaningful participation of the residents, which can improve the sense of ownership of space. This has resulted in the place being maintained by the residents. Second is the use of local materials, which contributes to its sustainability and durability. The third is bridging the community activities and the river.

The second case was from Solo city and the historic Kali Pepe river. This project is still not finished. This area is smaller than



The situation of Sungai Jingah neighbourhood

Banjarmasin, thus a denser population lives here, and the area is of historic value. The density makes it difficult to have a spacious area for social interaction, which is inclusive for all of the residents. There is also no place for kids to play and often they have to go further distances, which exposes them to danger. In general, the case is that Solo city lacks inclusive public spaces, especially for vulnerable groups. Instead of looking for a big formal public space, they looked for small-scale and informal ones, and they found 29 of them alongside Kali Pepe. These are formed organically and are in active use by the community. In order to transform these areas into inclusive public spaces, they used participatory planning, and for example, to include kids in the process, they used Minecraft. Or they used personas to represent vulnerable groups of the community and to showcase their struggle when using public spaces. The next step in the process will be the implementation of the design. The takeaway so far is that different communities have different dynamics and the participatory tools should benefit the context. Playful participation tools can put children at the centre of the co-design process. And again co-design can build a sense of ownership.



Design and implementation of the public space intervention.



The participatory methods with the inhabitants



Children using the new public space.

NAIROBI, KENYA

Pascal Mukanga

Planning Associate, Kounkuey Design Initiative

Mukanga Pascal is a Planning Associate at KDI's Nairobi Office. He is passionate about evidence-based, data-driven, and participatory planning and urban policy processes that promote equity and improve the quality of life in urban areas. At KDI, Pascal provides leadership and technical support to projects. This includes research, policy advocacy and designing and coordinating participation and co-development strategies for urban resilience, and integrated and inclusive planning and design projects, related to public spaces, urban rivers and natural hazards. Pascal holds a Bachelor of Arts in Urban and Regional Planning from the University of Nairobi.



Photo: Kunkuey Design Initiative

Pascal Mukanga began by introducing KDI as a multidisciplinary non-profit design and community development organization that partners with under-resourced communities to advance equity and activate the unrealised potential in neighbourhoods and cities. KDI works with these communities through a participatory approach to co-design productive public spaces that integrate physical, social, environmental and economic elements, to address multiple environmental and socio-spatial issues. KDI together with communities in Kibera informal settlement in Nairobi have co-designed a network of more than 10 productive public spaces over the past 15 years.

The case presented was on the rivers and people plan experience by KDI in the Mukuru informal settlements in Nairobi. Many informal neighborhoods in Nairobi form on marginal and hazardous land and spaces, including along rivers. As such, they normally

lack the requisite physical and social infrastructure and are vulnerable to various risks, including flooding. The relationship between rivers and these settlements, and the local community highlights various socio-spatial and environmental justice issues. The question is how do we go about addressing these issues, while at the same time accounting for the rights of communities living along rivers and ensuring their meaningful participation. KDI's approach and process emphasise the non-removal of residents living along the river when remediating the river while providing lacking physical and social infrastructures. And even in cases, where there is a need for removal, the residents would still maintain their right to housing.

In 2019, together with other partners, KDI started a program called realizing urban nature-based solutions. One important component of this program is the



The Kibera public space project - a network of productive public spaces in Kibera mediating physical, social, economic and environmental sustainability needs (Map: KDI, 2018)

rivers+people plan which basically aims to co-develop a blue-green infrastructure masterplan for a section of the Ngong river in Mukuru with residents. The principle is to start small and then scale up the rivers and people plan while linking with settlement and city-wide planning and river interventions. The first stage of the process was gathering data through desk research and thematic data collection and analysis of the multi-scale relationship between people and the Ngong river, to understand the social,

environmental, and economic intersectionalities between the river and people. And also looking into existing interventions and finding improvement opportunities.

The next step was the identification of the rivers and people planning area and mapping of river, environmental and water-related issues in close collaboration with the community, and included a mapping training session for some community members.



Participatory community mapping training for the Rivers and People Plan with residents of Viwandani in Mukuru, Nairobi (Photo: KDI, 2022)

A participatory visioning workshop that included people with disabilities, men, women, youth, and the elderly, was undertaken to first understand the benefits and issues related to the Ngong river and water management situation, after which short, medium and long-term visions were developed by the community for their neighbourhood. They investigated the effects of anthropogenic activities on the health of the river with a focus group discussion as well. The rivers and people plan places future developments in the informal settlement in the context of large municipal

planning and infrastructure investments by linking to large-scale settlement- and city-wide infrastructure and development initiatives, and integrating with city and national-level government planning efforts. For instance, the rivers and people plan fits and links to the Nairobi River Life Project, a city-wide river remediation initiative that is part of a larger Nairobi river regeneration initiative by UN-Habitat and the Kenyan government. Such collaboration by KDI, residents of Mukuru and UN-Habitat promote the long-term sustainability of the rivers and people plan project.



Site 01 near the Nairobi Dam in Kibera in 2006 - first Kibera public space project site (Photo: KDI, 2006)



Site 01 in Kibera after KDI and community intervention in 2022 (Photo:KDI, 2022)

KATHMANDU, NEPAL

Hans C. Bjønness

Professor Emeritus, Department of Architecture and Planning, NTNU

Hans C. Bjønness is Professor Emeritus in Planning and Development Research at Department of Architecture and Planning, Faculty of Architecture and Design, Norwegian University of Science and Technology (NTNU), Trondheim, Norway. He is also a Visiting Professor at Tibet University, Lhasa. From the start in 1985 his courses and research in South Asia have addressed issues of homelessness, slum upgrading, and urban conservation. He was the initiator of graduate and Ph.D. programmes in Urban Ecological Planning at NTNU. UNESCO assigned him to Nepal in three periods to work with educational facilities, building conservation and training, and in World Heritage discourses. He initiated the Trans-Himalayan University Network for Development of Education and Research (THUNDER) working with south-south institutional development of universities. His latest research involvements are with the upgrading of historical villages in Tibet; and with rights, development, and conservation issues in post-disaster contexts in Bhopal, India, and in Kathmandu, Nepal.



Photo: www.lifebeyondtourism.org

Hans C. Bjønness presented a case about the riverine slum citizens of Kathmandu in contexts of past, present, and future challenges. He started by insisting it is by giving the homeless in the slum enough credibility as citizens that we can realise their human rights. This involves the security of shelter, the opportunity to improve livelihood conditions, as well as efforts towards access to prime basic needs and services also through gender equality. And not to forget, slum dwellers organisations should have a say in municipal decision-making concerning their rights and basic needs.

To introduce the case and explain, his prime question was: WHO were the slum dweller

citizens at the riverine slum settlements at the time of the UN International Year of Shelter for the Homeless (IYHS) in 1987?

Starting with urban studies of 'cities within the city' Bjønness and his students were told that the riverine slum settlements were mainly inhabited by migrants from Bihar, the poorest state in India. They were seasonal, landless people coming in the hot summer season. However, the students finding were different. The main slum dwellers were of the lowest castes of the Newar ethnic group, the indigenous people of Kathmandu Valley. A majority were living in female-headed households (FHH). They were marginalised from the main historic urban settlements with



'Rivers of Life' in Nepal belong to the Ganga delta in this part of Himalaya. Women at Pashupatinath prepare through the night to celebrate lord Shiva. But there is also hardship carrying goods a cold winter morning crossing Vishnumati a tributary river to Bagmati in the Kathmandu Valley. (Photo: Hans C. Bjønness)



Female headed households are a large, struggling group of the homeless in Kathmandu. In Indrayani the women were empowered as member of the slum dwellers neighbourhood committee, and organised rotating childcare responsibility. This enabled work outside the settlement. (Photo: Hans C. Bjønness)

communities of low-caste groups. Most of them were divorcees or widowers or had been kicked out because the husband married again. Living with their infant and small children they faced the hardship of high child mortality which was much higher than in the permanent settlements. This did alert our dedicated Nepali teachers and officials. The outcome of initial involvements was first of all a documentation of the homeless settlers as poor, marginalised, non-speculative, Newari citizens. This enabled the students and dedicated Nepalese teachers to support the local creation of the Indrayani 'sukumbasi manche' (homeless peoples') committee made of women representing FHH and other homeless dwellers. This first committee of homeless was established in spite of a time when it was illegal to create interest organisations in Nepal. With their new awareness government Department of Housing and Urban Development (DHUD) made the first national conference on 'Housing for the Urban Poor' during the IYSH 1987. Further studies by Savitri Shrestha and Anne-Margrethe Lunde, Nepalese and Norwegian sociologists gave deep insights into the deprived livelihoods of FHH. In 1993 Lumanti, a support group for shelter and a local NGO was created and has tirelessly worked with the homeless of Kathmandu.

This 'people-based' start was one of the main motivations behind three decades of partnership between Nepalese resource persons, academia and state and Norwegian academics. Multi-disciplinary studies in Nepal and India followed and in 1999. M.Sc. and Ph.D programmes were established in Urban Ecological

Planning at NTNU with international students doing their fieldwork in Nepal, India and Uganda. However, as Bjønness outlined in his presentation, it was a continuous search for updated answers to WHO, but also to WHAT, WHY and HOW.

The WHAT questions address the need for understanding an ever-changing local context, in its physical and environmental dimensions, but also socially and politically. A critical approach is required to uncover

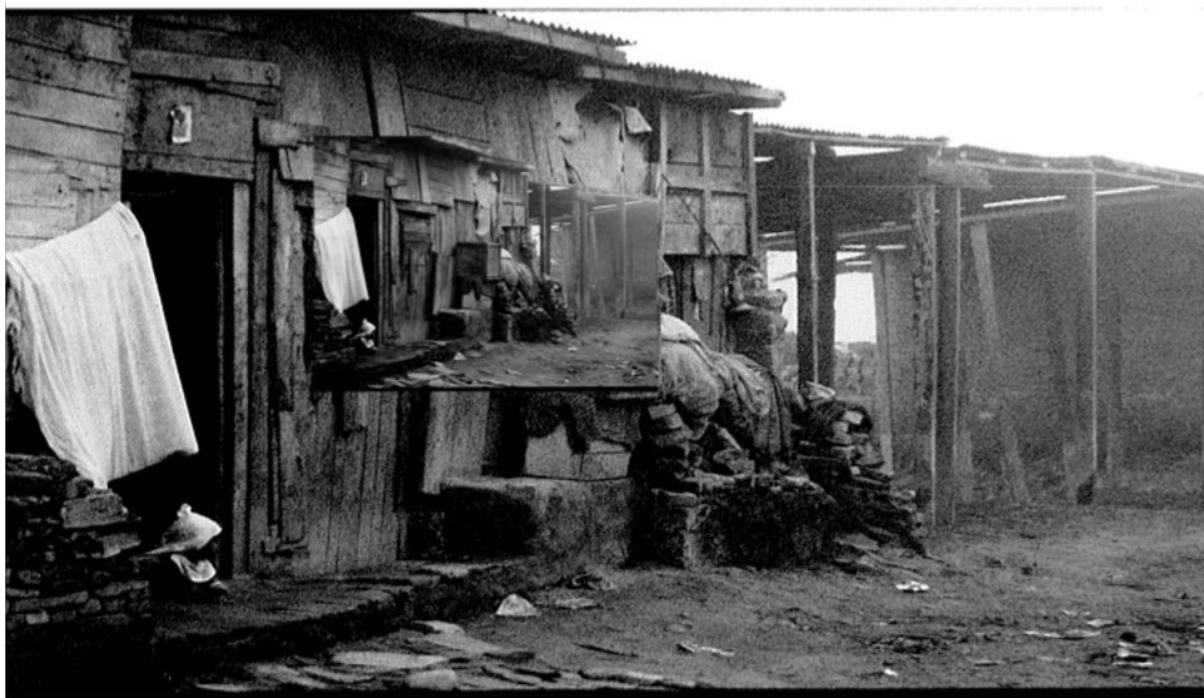
structural determining conditions for example in local politics of land use. Area-based upgrading efforts were studied. It proved essential that trust was given to communities' responsibilities for long-term improvement, integration, social awareness and upliftment.

The next question is WHY should housing and slum upgrading be a national and local government responsibility in Nepal? Following the new Constitution of 2015 housing rights became a part of human rights for all Nepali citizens. The why question addresses also the questionable legitimacy of 'outsiders' intervention. The focus must be on applicable knowledge benefiting the poorest. Sharing of knowledge with CBOs and NGOs and dedicated officials was always practised.

But HOW to make an on-the-ground positive change? Involved local teachers, and international students, had as future practitioners always a focus on how to encourage processes of change and improvement. Bjønness mentioned two examples. First, an example of the necessity of functioning infrastructure: A World-Bank-financed wastewater sewer line from Kathmandu ended in the middle of the riverside Indrayani settlement. During the monsoon polluted water flooded into the riverside shelters of the homeless. With a targeted project to improve the dangerous health situation, funds were collected and large concrete pipes were prolonged into the river, and flooding in the settlement was avoided.

The second example is a local government officer on-site training project: At the beginning of the 1990s, with the confidence and involvement of the government of Nepal (DHUD) and the Tribhuvan University, NTNU managed with NORAD support, to establish a program called TASK, Training in Area upgrading and Slum rehabilitation, Kathmandu. Nepal had achieved a multiparty democracy. A new local government structure needed to be sustained and respond to local priorities and needs.

The trainees and trainers got the chance to go



Children living and being brought up in slum dweller settlements are the most vulnerable. High child mortality was documented in the riverine slum settlement of Indrayani in Kathmandu. (Photo: Hans C. Bjønness)

to India to be exposed to and learn from sincerity, relevance and large scale in slum rehabilitation. The slum development wing of Delhi Development Authority (DDA) scanned the slum settlements establish who were genuine homeless slum dwellers without access to land elsewhere. The main DDA strategy was to establish settlement-specific basic needs to be addressed and advertised for competent NGOs to be responsible for implementation. Documented on-site development experiences were required towards both community and targeted positive change for women and children.

Bjønness made a final comment. The priorities of the poor must be respected. A very positive finding over the years is the efforts of poor parents, also in slum dweller settlements, to try their best to prioritise the education of their children - and especially target girls' opportunities through education to enhance their social mobility and livelihoods. The wise call of Dr Jibgar Joshi, past dedicated state secretary of the Ministry

of Environment, is to consider the riverine slum dweller settlements of Kathmandu Valley as part of the human and natural ecology of the river environment. A constructive dialogue has started on the present situation and perspectives on opportunities and conflicts with key committed Nepali colleagues and friends. However the main struggle is on fronts: to secure shelter and livelihood opportunities for the poorest in existing riverine settlements also of tributary rivers, and to guarantee efforts to integrate slum dwellers' settlements in land conservation initiatives along the main Bagmati river.

On WHO today - and in the future. Disasters, civil war, and dependency of The river during monsoon season expose the slum dwellers to risks of flooding. This enables the dwellers to continue living where they are because they are locally dependent on the area in terms of their income opportunities. But also in some cases, resettlement is necessary.

BELO HORIZONTE, BRAZIL

Carolina Heller

Supervisor of Environmental Management, Belo Horizonte

Carolina Heller is Civil Engineer and specialist in Environmental Engineering. She works at the Urbanization and Housing Company of Belo Horizonte (Urbel), for 10 years. In this period, she has achieved experience in water, sanitation, environment, and urbanisation in informal settlements, addressing planning processes and engineering design. She is now the supervisor of Environmental Management at Urbel.



Belo Horizonte is the 6th most populated city in Brazil with 5.2 millions inhabitants. The city is mainly urbanized. There are many watercourses in Belo Horizonte. The case presented was the Onça river program which had a flood and housing issue by the riverbanks. Historically many of the rivers were rectified and channeled, which today represents over 200 km of canalization. There are many consequences for people and the environment as a result of canalization.

In the presentation then we see the situation before and how high the flood level could reach and the water entering the houses. There was a social initiative by the community that partnered with COMUPRA, an NGO, and they demanded public service for family replacements and interventions in the river area. Based on the community demands and the technical studies carried out by the municipality the interventions were implemented aiming to reduce flood risk including removing and resettlement. From this process, new public spaces were created where previously there were houses. To give new uses for these new areas, an intense and complex discussion process with the

community took place mediated by Urbel, in which the households decided what and how to intervene in each area. They had to consider possible uses for flooding areas and possible interventions that they could afford and build considering that everything is made through self-management. All the interventions were planned by the dwellers and are being implemented and maintained by them with the help of the municipality. The project also got the cooperation of the UN-habitat global public space program.

COMUPRA was created in 2001 to carry out actions for the benefit of the local population concerning education, health, work, leisure, income generation, ecology, and citizenship. In Portuguese, Onça means the jaguar and the slogan of the program is "let the jaguar drink clean water." The aim is to collectively decide what is going to take place in the liberated areas of the river banks considering the house removals from the risk areas, build proper sanitation infrastructure, and urbanization of the surroundings. Urbel comes in to help with the technical social work, with socio-economic, and environmental sustainability as their motto. 1600 houses had to be

The "Affective" Map



The "affective" map



The community garden and sink built and maintained by the community

removed and resettled, and 800 is removed by now through. To carry this work out the most appropriately as possible, Urbel did several activities along with the dwellers, such as workshops and partnerships with NGOs, community associations, schools, entrepreneurs, etc. They came together to also clean and crop the areas that are empty now. One important result of this work is the "affective" map, which was developed as a result of the participation of different communities along the river. The community comes up with the best use for each area after careful consideration of the potential of the place, the possible flood level risks, the budget, etc. Many of these suggestions are already built, for example, the community gardens, that produce both food and income

for the people involved. This program of intervention has won the UN-Habitat award for the Global public space program. The program has the aim to create and strengthen innovative, inclusive, resilient, and sustainable public spaces in two flood-prone areas in common agreement with the community involved and also foster collective planning through digital processes (Minecraft workshops) and other participatory mechanisms. The Minecraft workshop is mainly for children and teenagers to design playground furniture.

The sense of community and ownership in this project is shown by a sign by the people that says: "I help with the world improvement, starting with Onça."

OSLO, NORWAY

Sidse Andersen

Deputy Chair, Oslo Elveforum

Sidse Andersen is an architect and a planning practitioner who worked in the private and public sectors. She has worked for the Planning Agency in Oslo. From 1991 until 2007 she worked for the Ministry of Environment with planning and cultural heritage, including the national environmental programme in five cities. During 2007-2015 she was employed in the Groruddalen environmental improvement area where she worked with the planning and implementation of local meeting places, including Bjerkedalen park with the reopening of Hovinbekken. Now she is retired and serves as the deputy chairman of the Oslo River Forum.



Sidse Andersen: She began by explaining the geographical setting of Oslo. Oslo is very fortunate since it has surrounding hills and forests to the west, north, and east. And then hills fall gently down to the fjord in the south, as mentioned, there are 10 rivers in Oslo. These rivers give the city lush, natural "long parks" with historic attractions along the path. The distance between these long parks is not far, therefore many people in Oslo have access to them. Still, one-quarter of these rivers are underground in culverts. Back in the late 1800s, they hid the rivers to urbanize more effectively. The rivers were ill-smelling and dirty. In the 70s, followed by an environmental awakening in Norway and all over the world, politicians and other groups wanted to reopen the rivers. Three reasons for this decision were climate change adaptation, improving water quality, and expansion of recreational areas in order to improve public health. Oslo River Forum was established back in 2000 to promote reopening and

taking care of the rivers. An observation from the Covid-19 pandemic was that people would get out of their houses and just walk up and down the rivers, and it gave people time to discover the rivers. Another example of a popular area for swimming is along the river Akerseelva. There are some discussions about the safety of this area for small children. But there is also a lot of social control in this area. The same river, being popular on sunny days, can become a rough one in times of storm. So, the plans should not overlook one or the other condition. These 10 rivers are also very different when it comes to being natural or man-made. Another example is the Ensjø, Hasle area, which used to be an industrial part of the city but then was transformed into new neighbourhoods that are compatible with climate change. For example, the water from the roofs is delayed and goes to the front gardens of the flats. That's how they handle the water when there's an overcapitation. In 2019, Oslo was chosen as the green capital



Foto Ekologigruppen fra Sverige



Outdoor classroom, opened by Sunniva Holmas Eidvoll, leader of the council of education in Oslo, on the riverbanks of Ljanselva.

Closing Remarks

José Chong

Global Public Space Programme, UN-Habitat

José Chong is an urban development and international cooperation specialist with over 20 years of working experience. He has a track record on managing global programmes for urban planning strategies, urban regeneration and public space policies in international organisations. At present he is the leader of the Global Public Space Programme at the Planning, Finance and Economy Section of the United Nations Human Settlement Programme. Jose graduated in International Cooperation, with specialisations in Urban Development, Post-disaster Architecture, Renewable Energies, and Sustainable Architecture and Urbanism.



Photo: Rafa Farina

of Europe and one of the reasons was the reopening of the rivers.

In this photo, for example, we see a street river, with buildings, pedestrians, vegetation, urban furniture, and a traffic zone. When you make the rivers attractive, then when it comes to safety, we have social control.

The Oslo River Forum has 10 river groups. Each of these groups has an agenda, and they are active politically and follow up the planning cases, some support schools, and some arrange activities such as fishing, bird watching, etc. When there is a focus on the use of rivers, then they become more and more important as well. Taking a walk by the river involves all the senses, hearing, touch,

smell, etc. therefore it's like a refuge from everyday life.

Sidsel then proceeds to show some examples of the work these groups are doing. For example, there was an outdoor classroom, opened by Sunniva Holmas Eidvoll, leader of the council of education in Oslo, on the riverbanks of Ljanselva. The space was built by the Ljanselva river group and they somehow found the funding for it too.

The popularity of rivers in Oslo makes it a bit hard for the planning administration to keep the river frontage away from development, but the river groups are active, not letting these things happen.

By the end of the event, Jose Chong gave a short closing speech, highlighting the Norwegian ties to sustainable development, and the relation of SDG 11.7 to this event. He emphasized creating accessibility and appreciated the ongoing effort and hoped for more collaboration. The importance of this topic is that so many people in urbanized areas live near rivers and their livelihood depends on them.

Takeaway Messages

After the event, the speakers have been emailed to share their key takeaways. The following are the messages that have been sent in:

Carolina Heller

Urban river management must be prioritized in the urbanization process in the different categories of cities over the globe, due to their importance at the social, climatic and physical levels.

Interventions must be as close to nature as possible, in co-creation with the riverside community, taking into account sustainability, water preservation, population health and with a worthy and accessible housing and leisure.

Pascal Mukanga

Water is intrinsic to the history of cities, and rivers as essential social and ecological systems should be structuring elements in the sustainable and climate-friendly city, and as well fundamental in urban development perspectives. As habitats for flora and fauna, rivers and their development provides opportunities to achieve and restore the ecological sustainability of cities while improving their attractiveness to people. While the development of our rivers takes time, starting small and linking these efforts into a long-term vision, including through networked riverfront public spaces that integrate nature-based solutions, is worthwhile. Such development of rivers should create opportunities to balance environmental and social sustainability needs and goals. It should be participatory to improve access to blue-green networks by children, women, persons with disability and other vulnerable groups, and collaborative to link multiple perspectives and experiences across research, practice and learning at local, national and global levels.

Hans C. Bjønness

Yes, the main question is who? Dealing with slum dwellers as legitimate citizens and critical livelihood and shelter needs, studies documenting who were essential for civil society engagement and government support. In Kathmandu, along the Vishnumati river, the slum dwellers were low-caste Newars, indigenous citizens, and not Indian migrant workers. Deprived female-headed households (FHH) dominated, struggling to meet basic needs for their children and families. Targeted, gender livelihood and community-based area improvement strategies were necessary.

In addition to who comes of course what? (to know and address the specific context), why? (the legitimacy and normative basis for interventions) and how? (How to create positive change? How to build 'entitlements' – or socially committed networks for the urban poorest?) ...

Of relevance to the who question is also my writing on who we are as expatriates in our interventions in the South. Are we qualified to DO NO HARM?

See reference:

Bjønness, Hans Christie. (2020) 'DO NO HARM: know your context! Towards transdisciplinary urban conservation and development practice to build peace'. Key note lecture. Proceedings of the Scientific Symposium Building Peace through Heritage - World Forum to Change through Dialogue. Florence, 13th to 15th March 2020.

Preliminary Programme

URBAN RIVERS | Connecting People, Cities and Rivers

Date and Time: 3 October 2022, 16.00-18.00 (CEST, UTC+2)

Type: WORLD HABITAT DAY, Hybrid event

Venue: Polytechnical Association of Norway, Rosenkrantz' gate 7, Oslo (3rd floor)

Info and registration: <http://habitat-norge.org/habitatday2022-urban-rivers/>

Online link: <https://youtu.be/alJg1O-zccc>

Introduction

Throughout history, rivers have been a central feature in the development of human societies – many of our towns and cities are associated with rivers. This relationship has developed because of their social and recreational value to communities as well as for the opportunities they present for economic development. Rivers provide important natural refuges and corridors between adjacent green spaces, for both people and wildlife. River corridors are not only critical for maintaining the diversity and abundance of urban wildlife populations, but they also provide a place for people to connect with nature and escape from the urban environment. Rivers are naturally dynamic systems, continually moving and interacting with their floodplain. This has, unfortunately, placed them in direct conflict with the process of urbanization.

Cities are grappling with the challenges of unsustainable urbanization, degradation of urban ecosystems, lack of resilience to climate change and non-inclusive urban planning. In the pursuit for economic development cities have exploited rivers indiscriminately. Today many of our rivers are extensively becoming dumping grounds for waste and wastewater discharge and are in a highly vulnerable condition.

As the local governments struggle to keep up with the high levels of urbanization, this overdependence of cities on their rivers is posing a serious threat to the naturally existing ecosystems. To further deteriorate the situation, the significant value of rivers has been ignored by the policy makers and development experts. It is clearly understood that cities need to bring their rivers to the heart of urban planning. The challenge is to incorporate river management strategies within the core of planning agenda for cities.

This calls for local authorities to act swiftly, providing citizens with healthy and liveable conditions through sustainable development and regeneration, to mainstream and promote nature-based solutions as a tool to create sustainable, resilient and liveable cities. Fortunately, there is an increasing understanding that ecological restoration is often a possibility, especially when considered along a spectrum of solutions, dependent on the available space, degree of alteration and, naturally, budget. These solutions range from simply providing more urban trees and shade along riverbanks, to recreating stepped terraces doubling as narrow flood plains, to eventually restoring natural floodplains among others.

Helping our rivers to return, in parts, to nature will provide a real opportunity for city dwellers to re-establish a lost relationship with the natural world, improve the quality of their lives and transform cities into liveable, healthy and attractive places for investment. It presents communities and mayors with the opportunity to reframe themselves in a fast globalizing world.

Objectives

- i. To discuss the opportunities for river restoration in the times of climate crisis
- ii. To showcase inspiring case studies on river regeneration globally and the applied tools and approaches.
- iii. To establish a community of practice on river regeneration and restoration

Agenda

Host: Erik Berg, Chair, Habitat Norge

Moderator: Peter Gotsch, Professor, NTNU

Opening: 16.00-16.20

1. Marianne Borgen, Mayor of Oslo
2. Maimounah M. Sharif, UN Habitat - Executive Director
3. Sigbjørn Gjelsvik, Minister of Local Government
4. Marianne Skjulhaug, Dean, Faculty for Architecture and Design, NTNU

Keynote: 16.20-16.40

Urban rivers through history - present and future challenges of politics, economy, ecology, equity and culture. The role of the international community, Professor Terje Tvedt, University of Bergen

Inspiring Practices: 16.45-17.45

Ms. Ellen de Vibe, former Chief City Planner of Oslo

How is Oslo doing it – a global model?

Ms. RizqaHidayani, Kota Kita, Indonesia

Co-design and Placemaking Approach in the Informal Riverbanks Settlements of Solo and Banjarmasin, Indonesia

Mr. Pascal Mukanga, Kounkuey Design Initiative, Kenya

Nairobi River of Life Project: Peace, rights, environmental justice.

Prof. em. Hans C. Bjonness, NTNU

The riverine slum population of Katmandu – past, present and future challenges.

Ms. Carolina Helle, Belo Horizonte City

Community in the valley: new uses for the Onça Creek banks.

Ms. Sidsel Andersen, Deputy Chair, Oslo River Forum

"How we do it."

Way forward and closing: 17.45-18.00

Reactions from partners/Participants:

Approaches/models: where do we stand and where do we go? Putting research into practice. Cities and Partners.

Jose Chong, Head of Global Public Space Programme, UN Habitat



HABITAT
NORWAY

Habitat Norway is a non-governmental organization focusing global urban development. Our main themes are sustainable development, local participation and improving the living conditions – in particular housing – of poor slum dwellers. Gender equality and youth issues are cross-sectorial priorities with the Sustainable Development Goals as a basis. Habitat Norway is a multidisciplinary network promoting knowledge and information exchange to improve competence on global, urban poverty issues in the Norwegian and international development discourse.

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Habitat Norway
December 2022