Joint International Stakeholder Workshop UI-UF-UC Depok City Council-NGOs-Community People-Scholars

Novel Approach to Employing Green Infrastructure to Enhance Urban Sustainability

Closing Remarks

22 October 2015

Dr. Andrea Frank, Cardiff University

These were four amazing days during we first time visitors from Cardiff University learned an immense amount. On behalf of my colleagues Chris Tweed, Gabriela Zapata-Lancaster, and Andrew Flynn I would like to thank Professor Kemas for his wonderful hospitality with a gift of this book **Capital Cardiff (1975-2020).** We look forward to our future collaborative activities. I would also like to thank Professors Ova Chandra, Yandi Yatmo, Abimanyu and the students for all their efforts in arranging this workshop. We were especially impressed by the methods employed by Ova and her students in working with local communities and look forward to building on these as the development of educational material is part of this joint GII grant.

Prof. Christopher Silver, University of Florida

This morning's presentations were absolutely fabulous. What was really telling was when you put all three groups together. We have a lot of ideas and a good sense of direction. We also recognized the importance of green technology and urban sustainability related to the issue of water. We have brought those issues together in the context of Depok and Jakarta and we have arrived in a very good place.

I would like to thank the organizers and the students. In what started out as a hesistant conversation has resulted in lively discussions and jokes at the end. This is how we develop a good collaboration.

Prof. Dr. Kemas Ridwan Kurniawan, Universitas Indonesia

It is my sincere pleasure to thank all of you for your active participation in the workshop. It seems such a long time ago since we began our preparations for working together with our great colleagues from the University of Florida and Cardiff University. It is such a relief to end successfully with all our working group presentations. It is also useful to remind us about the four days during which we have gained a deeper understanding of water as an essential element of human life.

Besides the benefit of academic research we also were engaged in four field surveys: firstly, on the University of Indonesia campus to experience directly the presence and movement of water as well as the beauty of the lakes and the challenge of waste management from upstream trash; secondly, to visit the community around the Lake in Setu Babakan; and thirdly, to view the commercialization of water at the seaside theme park in Ancol. Then, fourthly, in the context of dense urban settlement, the visit to Maura Angke, (71 hectares, 15,000 people) underscored the basic and primary relationships between human beings, the environment and water. Firsthand experience in

the fish market and the restaurant thereafter reinforces the life cycle, enabling us to marvel not only at the beauty of the fish, but also the enormous effort undertaken by the fishermen to bring the fish to market, to be placed on beds of ice and then onto the table for our nourishment. Additionally, the experience included observing the proximity to the sea and how people walk on elevated bamboo bridges with the seawater underneath, either to reach their homes or to travel through the mangrove nursery.

From the vantage point of scholars and experts in architecture, urban planning as well as sustainability and the environment, the importance of green infrastructure prevails as the workshop theme. Green infrastructure distinguishes the importance of green and blue spaces in contrast to grey infrastructure of roads and canals for cost-effective and sustainable water management. Recalling the Garden City movement in England, new perceptions of green infrastructure extend beyond the protection of nature and address issues of biodiversity. In short, green infrastructure helps improve urban sustainability and adds to the resilience of regions.

For the University of Indonesia campus, the planning typology is firstly based on the idea of humankind being at the center and surrounded by the environment. Following the Indonesian motto of '*Bhinneka Tunggal Ika*' or 'Unity in Diversity', the architectural building typology represents the 27 provinces set in a sea of green landscape. The potential of the artificial lakes at UI is to absorb and contain water for flood control, to conserve ground water, to be a recreational area and with the surrounding 100-hectare city forest to act as a carbon sink. The challenges of the UI lakes are garbage, solid and liquid waste water, sedimentation, maintenance and Eutropication (excessive plant growth - *Eichhornia crassipes*).

Also important for scholars is building up the information system and how to make the community aware of new ideas. The process involves identifying a clear boundary for research, then identifying community members and meeting points and where these two categories intersect in the zoning diagram The research model can be very time consuming and it is importance to strike a balance between the number of student researchers and the interaction with the community.

Further to these concluding remarks, this workshop is beneficial for our future plans related to the joint design studio in 2016 as well as being fruitful for our global research project. We plan to distribute all our research materials on the web as well as building up a new method and novel approach. Now I would like to thank Ova and all the students and all the participants of this workshop to come forward for a round of applause.

I would also like to deliver our thanks from the bottom of our heart to all our speakers : Dr. Andrea Frank, Dr. Nyoman Suwartha, Dr. Ova Candra Dewi, Bradley Walters, AIA, Dr. Robert J. Ries, Dr. Hendicus Andy Simarmata, Dr. Jocelyn Widmer, Prof. Riri Fitri Sari and Dr. Christopher Silver, and especially to our participants: Prof. Chris Tweed, Dr. Andrew Flynn, Dr. Gabriella Zapata-Lancaster, Pak Indra, Ibu Merlian, Pak Jamel, Pak Hafis, and all the participants.

From the deepness of my heart, I would like to apologize if something did not fit with your expectations. The most important thing about our collaboration is to improve and develop continuously.