GLOBAL INNOVATION INITIATIVE PROJECT (15 April 2015- 14 April 2017)

"Novel Approaches of employing GI to enhance urban sustainability"

Multilateral Partnership project between

- University of Florida, DCP
- Cardiff University, WSA and School of Planning and Geography
- University of Indonesia, Faculty of Engineering (Department of Architecture)

Kick-off Meeting Summary

The first project meeting (1 – 4 June, 2015) was hosted by project lead University of Florida, College of Design, Construction and Planning in Gainesville, FL, USA. The purpose of the meeting was to bring the project partners and key individuals together to update and share current projects relevant to the GII project - on and off the respective home campuses - which are to be used as test-beds of GI research methods and tools as well as research expertise. This note represents a summary of the meeting including an account of the activities, membership of working groups

Sunday 31 May 2015

The project leader (Prof. Silver) and two liaisons (Prof Kemas R. Kurniawan and Dr. Frank) from University of Indonesia and University of Cardiff held a brief meeting to consolidate the agenda for the three day intensive seminar on Sunday 31 May.

Monday, 1 June 2015 10-12, 13:30-16:30

Members from all three institutions were present* although the UF contingent varied over the three meeting days.

UI: Dr.Yandi Andri Yatmo, Dr. Kemas R. Kurniawan; Dr. Abimanyu T. Alamsyah; Dr. Gunawan Tjahjono CU: Dr. Andrea Frank, Dr. Andrew Flynn; Prof. Chris Tweed; Dr. Wassim Jabi

UF: Dr. Christopher Silver; Prof. Glenn Acomb; Prof. Bahar Armarghani; William Whiteford; Dr. Robert Ries; Prof. Peggy Carr; Prof. William Tilson; Prof. Bradley Walters; Dr. Kathryn Frank; Dr. Ravi Srinivasan, Dr. Pierce Jones; Dan Zhu

The Grant

Silver provided an overview of the purpose of the grant and its terms (ie. the funding is to support mobility for staff and students and pay for workshops but does not allow to pay for salaries of researchers). There are three aspects for the grant: research, education and dissemination/knowledge exchange

Institutional presentations

Each institution provided a brief overview of size, speciality areas, and their respective teaching provision and research; also there were presentations giving an overview what each institutional partner currently does in terms of institutional level sustainability. There is great diversity but also some similar issues at all three institutions.

Tuesday 2 June 2015 10-12, 13:30-16:30

Meeting starts with an introduction and welcome by Prof Leo Villalon

Presentations by Wassim Jabi and Ravi on using modelling and visualization software to illustrate what is currently the state of the art at Cardiff and Florida in respect to modelling for energy consumption or steering design decisions.

There is insufficient funding and time at this stage of the collaboration to support development of new models. The question for the partnership is what could be developed relatively easily to adapt the existing models for neighbourhood level modelling around water and green infrastructure. It is clear that expectations need to be modest.

Florida data on water usage for individual homes impressed audience.

Campus Project tour

The team proceeded to tour visit 4 exemplary projects on the UF campus where GI and various sustainable technologies have been implemented.

- First was the experimental green roof.
- The second was the green infrastructure designed into UF Southwest student recreation center; this building has a sustainable urban drainage feature and significant energy saving features
- Landscape/biodiversity park nearby was briefly examine
- A new Building (LEED gold/platinum) award (solar cells, and small green roof feature)

Wednesday 3 June 2015 10-12, 13:30-16:30

Material presented on the previous day inspired the formation of five (5) working groups. The purpose of the grant was recalled and it was noted that sustainable urban development requires all: design, the right policies in place, education and tools which support decision making and communication (e.g. visualization and monitoring). In addition the team discussed working modes, information sharing and communications; the website, and future dates

In order to focus and prioritize work packages, the team started to develop a theoretical framework and set of constructs to organize the existing interests, projects and expertise. The importance and relevance of scale in addressing sustainability was also highlighted as this links to methods and policies/legislation. In light of the limited resources the team will need to decide and focus on a limited set of priority activities. (see Table 1 and 2)

Table 1

| Perspective on Water/context | key managers | management tools and | management scale | Rights of Access | |
|------------------------------|-----------------|----------------------|------------------|------------------|---|
| | and users | mechanisms | | | |
| ecosystem services | Public | market | National | license | |
| resource efficiency | Private | regulation | regional | tradition | |
| ecology/morphology | Communal | voluntary | Local | ownership | |
| of water | | | | | |
| supply/demand | | community | catchment | | |
| management | | | basin/watershed | | |
| social life of water | | | community / | | |
| | | | individual | | |
| health and well- | | | | | |
| being | | | | | |
| habitat | | | | | · |
| urban | | | | | |
| agriculture/food | | | | | |

Table 2

| | Campus | community | coastal/regional scale |
|---------------------------|--------|------------------------|------------------------|
| | | /neighbourhood | |
| University of Florida | | Gaineville | |
| | | neighborhoods | |
| Cardiff University | | Grangetown / Cardiff | |
| | | Bay | |
| University of | | North coast waterfront | |
| Indonesia | | community | |

The Working groups

• Working group 1: People's perception of water (GI?), their fears, desires, problems (K Frank, Tweed, Jones, Yatmo). There was an interest in exploring this with qualitative data; Tweed's approach for energy use could be adapted to water issues. This could be explored with students in a neighborhood context in Cardiff and other locations. Wassim Jabi is involved with the 3 week vertical studio. This is could be building on previous project in Grangetown or Roath? Wassim presented some outcomes from this studio which also employed local scale GI. This could be repeated and adapted to this project with results feeding into the workshop to be held in Cardiff in June/July 2016.

- Working group 2: Habitats, place and water (Flynn, Yatmo, Kurniawan, Tilson) this is looking at access to water and conservation issues
- Working group 3: Risk management (Silver, Abymanyu and Zhu) Why flooding/pollution and people's behavior?
- Working group 4: Modelling and Tools (Jabi, Srinivasan, Alamsyah, Jones)
 Also linked to teaching tools and teaching integrating design, water use

Action: it needs to be established what data can be obtained at each location, i.e. what is being monitored, what models exist and what could students collect and at what level (building/neighbourhood)

• Working group 5: Educational material (A Frank, Flynn, C Silver, Kurniawan) There are at least two types of materials; one are materials for HE, and teaching students within a program or course. The second one are materials for industry/government or practitioners in the built environment. The first step is to assess what teaching materials, modules etc. are held at each institution. We need to develop an inventory and identify gaps.

At a pragmatic level in regards to the field trip/live project in January 2016, we need to decided what do we want students to learn/do?

There need to be a discussion of remote input (e.g. lecture materials and reading on Indonesian planning and Jakarta issues (reading); and preparations for the fieldtrip, addressing issues where students' will stay, health and safety, transfers and project location.

What kind of teaching materials do we want/ what would be useful and transferable?

Action: AF to develop an inventory of material already available. UI and UF to provide relevant information.

1. Website

A draft website http://ggi.dcp.ufl.edu has been developed by the project lead team. Relevant logo's and other material need to be provided from CU and UI. There needs to be some more equity in how the project team is presented.

Action: CS to circulate draft webpage for all to look at and provide feedback for amendments, files etc.

2. <u>Communication/information sharing</u>

Various options were suggested including list serv or google docs, skype etc.

Action: Younger team members to make a decision and provide all with protocols on how to share documents

3. Future dates

The team members agreed on two future key dates:

- I. Stakeholder workshop in (Jakarta, Indonesia) 17-22 October 2015
- II. Student mobility & field work (Jakarta, Indonesia) ca 10-22 January 2016

Action A: Silver and Kurniawan to develop draft schedule for workshop and draft meeting agenda to circulate. Kurniawan to provide recommendations for hotels and make reservations in Jakarta for holding rooms. CU team to include Chris Tweed, Gabriela Zapata-Lancaster, Andrew Flynn and A. Frank

The October visit is also vital in setting up the first student project where students from UI, UF and CU are coming together to work on a local issue around GI and sustainability. This could include surveys, data collection or developing relevant modelling if sufficient scaffolding information could be set up.

Action B: Preparation for field trip visit, project development and development of teaching materials AFI/AFr/ CS/Yandi/Kemas? See also Work group 4 Education

Group photo was taken for the website/public relations and communications

Action: CS to share with UI and CU team

Thursday 4 June 2015

A. Frank, Silver and Tweed conducted a final brief meeting to discuss an application for a visiting Fellowship for Prof. Chris Silver to come to Cardiff in early Spring 2016 for 2 weeks to intensify discussion and collaboration activities. Notification of the success of this application was received on 28 July providing 4500 GBP for travel, accommodation and local costs.

A meeting of Flynn with Dean Leo Villalon, UF International Center, resulted in the development of a joint MOU between CU and UF to support student exchanges.

Action: AFI to update team on progress and outcomes