EcoPoor: Institutions for Urban Poor's Access to Ecosystem Services: A Comparison of Green and Water Structures in Bangladesh and Tanzania (NE-L001616-1)

Proceedings of Research Framework Workshop, Dar es Salaam

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Workshop details

Host: Ardhi University, Dar es Salaam, Tanzania
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EcoPoor Sponsor

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EcoPoor Collborators

Key Discussants at Dar Workshop

Clive Agnew[1], David Hulme[1], Mengiseny Kaseva[2]; Deusdedit Kibassa[2], Nicholaus Mwageni[2], Neema Ngware[2], James Rothwell[1], Manoj Roy[3] and Riziki Shemdoe[2]

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1. Introduction and Objectives

Co-production and collective action are viewed as essential building blocks of the institutional arrangements needed to sustainably expand access to basic services for the poor. The former requires consensus, which the latter can provide.

The EcoPoor project will explore these institutional arrangements, focusing on services derived, and disservices resulting, from two important ecosystems – urban green and water structures – in low-income settlements in Dhaka (Bangladesh) and Dar es Salaam (Tanzania).

The overall aim is to identify a set of policy-relevant design principles for the institutional arrangements necessary for producing and distributing ecosystem services that promote sustainable improvements in the wellbeing of the urban poor. In doing so, it combines both natural and social sciences to achieve the following objectives:

- To examine what access/exposure the urban poor have to green and water ecosystem services/risks.
- To identify the institutional arrangements structuring their access at different levels.
- To examine whether collective action and coproduction improve urban poor people's access to ecosystem services and create a basis for developing effective institutions.

This report details the issues raised at the Dar es Salaam Research Framework Workshop, one of two workshops organised to discuss the project in greater details and make significant progress towards its implementation in Dar es Salaam. The Workshop was held on 3rd March 2014. It was held immediately before the Dhaka Workshop held on 6th March 2014. The specific aims of the Dar Workshop were to:

- Reflect on what we know about urban poverty and ecosystems in Dar es Salaam;
- Sharpen the EcoPoor research framing;
- Select four case study settlements (building on field visits during March); and
- Identify an initial set of design principles characterising progressive institutional structures.

The workshop was a day-long event hosted by Ardhi University – EcoPoor project's lead institution in Tanzania. 15 members of the Bangladesh, Tanzania and UK teams attended the workshop (see Annex 1). There were four sessions covering the four main tasks of the EcoPoor project: contextualising the EcoPoor project in Dar; methodology; selection of case study settlements; and forward planning. The sessions started with thematic presentations, followed by moderated discussions around a set of core questions (see Annex 2 for Workshop Programme). The presentations can be downloaded from the EcoPoor website. The rest of the report presents a detailed account of the discussion that took place in the four sessions.

2. First Session: Contextualising the EcoPoor Project in Dar

2.1. Welcome Note: Professor David Hulme

The session chair, David Hulme, opened the Workshop by giving a contextualisation of the ESPA project in Dar es Salaam. The aim of the Workshop was to look at the overall/draft framework set for the ESPA research, including identifying the type of data needed and the sources from which the required data and information could be sought. During the Workshop, the case of Dar es Salaam city was looked at in detail. He said that the site visit across Dar es Salaam, conducted on 2nd March 2014, was not only exciting, but added substantial knowledge ahead of the Research Framework Workshop. Prof. Hulme insisted that it should be in the participants' minds that, as the Workshop concluded by the end of the day, the team must have in place a framework as guidance for the research work.

He added that, despite having this requirement, where the team had not reached an agreement or a final decision, it was recommended to have options or alternatives for further discussions towards setting an agreeable way forward. These options could be in study site selection, as well as other issues, such as methodology for the work, and parameters for the issues or information being sought.

Dr Manoj Roy then gave a briefing on the ESPA research, reminding the participating team members that they had a long journey ahead, urging hard work and commitment from each member. He was confident that eventually the work would bear the intended fruits. The ESPA co-investigator in Tanzania, Dr R. Shemdoe also addressed the workshop by welcoming participants, including colleagues from the Sokoine University of Agriculture (SUA), the Kinondoni Municipal Council (KMC), the NGO "More Resources", and colleagues from Bangladesh and Manchester.

Four sites were to be selected in Dar es Salaam (Tanzania), and four in Dhaka (Bangladesh). Dr Roy reminded participants of the importance of using an appropriate (scientific) methodology in selecting study sites in Dar. He stressed that it would be inappropriate to press to finish the selection on the day and risk not get the correct ones. This would obviously lead to problems in validating the research in this aspect.

Dr Shemdoe described the project context issues, insisting that the aim of the workshop, among other important matters, was to create a framework for the way forward in this project. He discussed briefly the four key terms that would be discussed (see Box 1).

Box 1: Working terminologies

Planned settlements: Surveyed settlements.

Unplanned settlements: Un-surveyed plots, though some may have some surveyed areas within.

Collective action: The act of people in the settlements coming together to solve issues in the community, i.e. community initiative to solve problems. It is about the community themselves, the self-help mode of addressing basic concerns by low-income people.

Co-production*:* The provision of public services through regular, long-term relationships between state agencies and citizen groups, with both making substantial resource contributions.

2.2. EcoPoor Project: Background, Objectives and Framing

Dr Roy gave a presentation on the overview of the ESPA, covering the background, objectives and framing. He emphasised the core issue of the research – what he referred to as "the lens" – which is to reduce poverty in low-income settlements through improvement of ecosystem services and reduction of disservices.

He cited the increasing urbanisation in Bangladesh, where the trend indicates an ever-increasing urbanisation, with low-income households inhabiting informal settlements. He described the project's core objective as being improvement of wellbeing and reduction of poverty through an examination of the ability of the diverse actors and institutions that have an impact on management of urban ecosystems, together with an assessment of the degree of access to the urban ecosystems' services and disservices by the urban poor.

The scenario of increasing urbanisation gives rise to a range of problems for low-income settlements such as; polluted water, poor sanitation, poor solid waste management, flooding,

insecurity of tenure, social and political exclusion, amongst others. These have implications for people's lives, such as food insecurity, poor nutrition, pollution retention and, more seriously, negative impacts on the health status of the people. Dr Roy noted the importance of depending on diverse institutions in empowering low-income settlement dwellers, including institutions inside the community (CBOs, NGOs) and those external to the community but equally influential (political parties, religions institutions, local administration at different levels in the city).

Dr Roy summarised the issue, reflecting on three key concepts, namely:

1. Poverty has an *'urban future'* in numerous countries of the developing world;
2. In terms of exposure to environmental hazards, low-income settlements are often regarded as 'landscapes of disaster' (Gandy, 2008;[2] McFarlane, 2008[3]). However, from a developmental perspective, these settlements are in fact 'landscapes of hope and aspiration',[4] as they offer low-income urban people an opportunity to enter into and integrate with the social, political and economic life of the city; and
3. *'Dependency on diverse institutions'* is a possible way through which low-income dwellings could have improved access to ecosystem services. However, the challenge is that the existing institutional structures are rarely inclusive.

He discussed the multi-functions/multi-services of a typical green structure in Bangladesh, such as providing both shade and food (vegetables). He further insisted on the importance of looking at the possibility of integrating co-production and collective actions to improve the wellbeing of low-income people.

Finally, he posed the main research question for the project, to serve as a way forward in discussing the methodology for obtaining the information and data needed to answer the questions. The main research question is:

"What institutional frameworks enable the urban poor to improve their wellbeing through improving their access to services and preventing urban green and water ecosystem disservices?"

He thanked the ESPA for funding, and the Tanzanian and Bangladeshi collaborators, together with ClimUrb and CLuva projects, for their input into this study.

2.3. **Urban Poverty in Dar es Salaam**

From the baseline study, Mr Mwageni showed poverty in Dar es Salaam, Tanzania decreasing at the household level. He nevertheless cautioned that, at the individual level, poverty was increasing. He explained the typologies of poverty as being income poverty (the majority living on USD 1 per day), very few people in formal employment, and non-income poverty (poor schools, prevalence of diseases, a high mortality rate for the under-fives, and consumption of contaminated food).

Mr Mwageni also discussed the land tenure system in Tanzania, as this may have an impact on community access to the ecosystems and their services and/or impact through their disservices. The major tenure systems are: statutory, where the occupier is granted a right of occupancy, with an offer (Letter of Offer); and customary land tenure, in which ownership is

[2] Gandy, M (2008). Landscapes of disaster: water, modernity, and urban fragmentation in Mumbai. *Environment and Planning A,* 40, pp108-130.
[3] McFarlane, C (2008). Governing the Contaminated City: Infrastructure and Sanitation in Colonial and Post-Colonial Bombay. *International Journal of Urban and Regional Research*, **32,** (2), pp415-435
[4] David Hulme coined the term at the workshop.

by virtue of being a community member. Most of these are informal lands/settlements. The relationship between the land tenure and ecosystem services, which was also a major tool in selection of the four case study settlements, was outlined.

He also discussed livelihood activities in Dar es Salaam. The main source of income was informal activities and micro-enterprises, and employment in the city declined between 2002 and 2010. Self-employment meanwhile rose from 29% to 43% during the same period. He concluded by explaining the institutional structure for green and water services management in Dar es Salaam, which is important for improving the wellbeing of low-income slum dwellers through an increased access to these ecosystem services.

The institutional structure starts with the sub-ward level, up to the ward and the city and municipality levels. The city administration, the Dar es Salaam City Council (DCC), is an apex body coordinating the activities of municipalities, but municipalities have their own administration independent from city-level decisions and are not obliged to report to the city level. It is important to note that there are green and water structures under the management of the DCC, while there are some under the jurisdiction and management of the municipals. This is important in deciding which ecosystems (green and water structures) to sample out for inclusion in the study.

Questions, Comments, Suggestions

- A question was raised about availability of hard evidence on pollution levels.

  A Tanzanian team member responded that such data was not established for this baseline study, but would be part of the data that would be generated during the course of this research, covering food pollution, water pollution and soil pollution.

- A concern was raised on the proportion of Dar es Salaam's population that was poor in 2007. The percentage appears quite low (i.e. 16%), indicating under-estimation of the scale and depth of urban poverty in Tanzania. It was suggested that this research should have a focus on poorer communities.

2.4. **Urban Green and Water Structures in Dar es Salaam**

Describing green structures' functions of offering the fundamental services of shelter, fuel, food, nutrition, and protection from extreme weather and pollution retention, Dr Kibassa gave examples of fundamental services and disservices which are important to low-income dwellers, which is a key focus of the ESPA research. He further described the water ecosystems in Dar es Salaam, as mainly comprising of rivers, wetlands and streams, together with constructed water facilities such as wells and sewerage systems. These have an important role in facilitating access to safe and clean water, drainage and flood prevention.

Slightly over half of the city is serviced with clean water, while only 13% of the city has a sewerage system network, with the remaining 87% using onsite sanitation. Management of green structures was explained, as this is among the factors determining the quality of the structures. They are either public or privately owned and operated.

In conclusion, Dr Kibassa highlighted another critical factor: the policies and Acts governing green and water structures in Tanzania. These are the National Environmental Policy of 1997, the National Environmental Act of 2004 and the Planning Act of 2007 (on green structures). Others, for water structures, are the National Water Policy (NAWAPO) of 2002, the Water Resources Management Act of 2009 and the Water Supply and Sanitation Act of 2009.

Questions, Comments, Suggestions

- Having seen the distribution of green structures in Dar es Salaam, a question was asked on the case of Dhaka.

  Participants were informed that in Dhaka they also have a small number of parks within the inner city, but there are absolutely no "spots of green" such as is the case for Dar es Salaam.

- A question was asked about the identity of the major actors (by names) of the institutions which are responsible for managing the green structures. Apart from the management issues, the information would be useful for preparing a sample for an in-depth study.

  These were listed as universities (having large areas of green structures), and municipalities (which oversee green structures in their respective municipalities)

- It was asked whether the municipalities were also the main actors for water structures.

  It was explained that there are services and utilities that are managed at the city level, such as the Energy and Water Utilities Regulatory Authority (EWURA), managing and regulating water supply in the city, the Tanzania National Roads Agency (TANROADS), managing major roads, while there are some which are under the authority of the municipalities.

- A question was raised as to what are the disservices.

  A research team member explained disservices as the negative or undesired impacts on the communities who use the ecosystem in question. He used an example of a river system, explaining that services are fishing, clean water and the authentic value the river brings, while disservices were the diseases spread from polluted water, food pollution and bad smells if the river is polluted.

- It was queried whether some of the institutions for management of green and water structures were privatised.

  Some, like the Dar es Salaam Water and Sewerage Company (DAWASCO), were privatised, but presently operates as a public institution. Several other institutions have followed such a trend, in trying to optimise their output.

- The issue was raised of whether there has been any (government) concern over the pollution of the leafy foods? The statistics show that approximately 90% of produce and leafy vegetables (especially Amaranthus) being produced in Dar es Salaam grows where water pollution is in excess levels.

  Participants were informed that usually the government will sound an alarm immediately when there is a disaster, but then everything cools off quickly without doing much. Another participant said that he knows of about seven published papers showing the presence of toxic metals and other pollutants in the Msimbazi River in Dar es Salaam, emanating from industries operating upstream; this concludes that the issue is known. However, The challenge for researchers/scientists presenting this information it to policy and decision makers, would be the risk of imposing "political" aspects on the problem, leading accusations of scaring off the community; the technocrat will be expected to have proposed solutions (curative measures) on the issue. For instance, what food alternatives are there if one is not consuming the farm

and garden harvest from the Msimbazi catchment? What produce would there be to sell for livelihoods in place of the popular Amaranthus?

On the same issue, it was put forward for discussion whether there is evidence in terms of hard data on the number of people who had fallen ill or died from consumption of the food and vegetables irrigated with Msimbazi River water? The availability of this data will convince people (decision makers, community) on the issue, and lacking this data will make the issue problematic.

Participants were additionally informed of the presence of informal collective action groups in various settlements in response to industrial river pollution.

- On the approach for carrying out the research, there was a concern on whether to tackle the research as a broad subject or narrow it down?

  It was briefly discussed and agreed that it is better to take a "broad" approach initially, and later there could be a narrower study. For the time being, it was set to select the sites based on where people are facing the most serious issues with services and/or disservices of the ecosystem.

  A suggestion was put forward on the relevance of assessing the interlinkages between institutions managing the green and water infrastructures. It was suggested that eventually it might be possible to develop a model which the government could use to coordinate these institutions.

3. Second Session: Methodology

The second session outlined the methodology for the EcoPoor project. The key objective was to identify four comparable field sites and create a 4x4 matrix within which to connect these sites to four criteria: high/low ecosystem services and public/private land. The session included four presentations, followed by a short discussion leading to shortlisting of candidate case study settlements for Dhaka study.

3.1. Overview of Methodology

Dr Roy presented a proposal for the methodology and design of the work. He recalled the main research question and the detailed research questions, which were relevant for discussion on study methods. He additionally presented the hypothesis to be worked and a conclusion to be deduced by the end of the research.

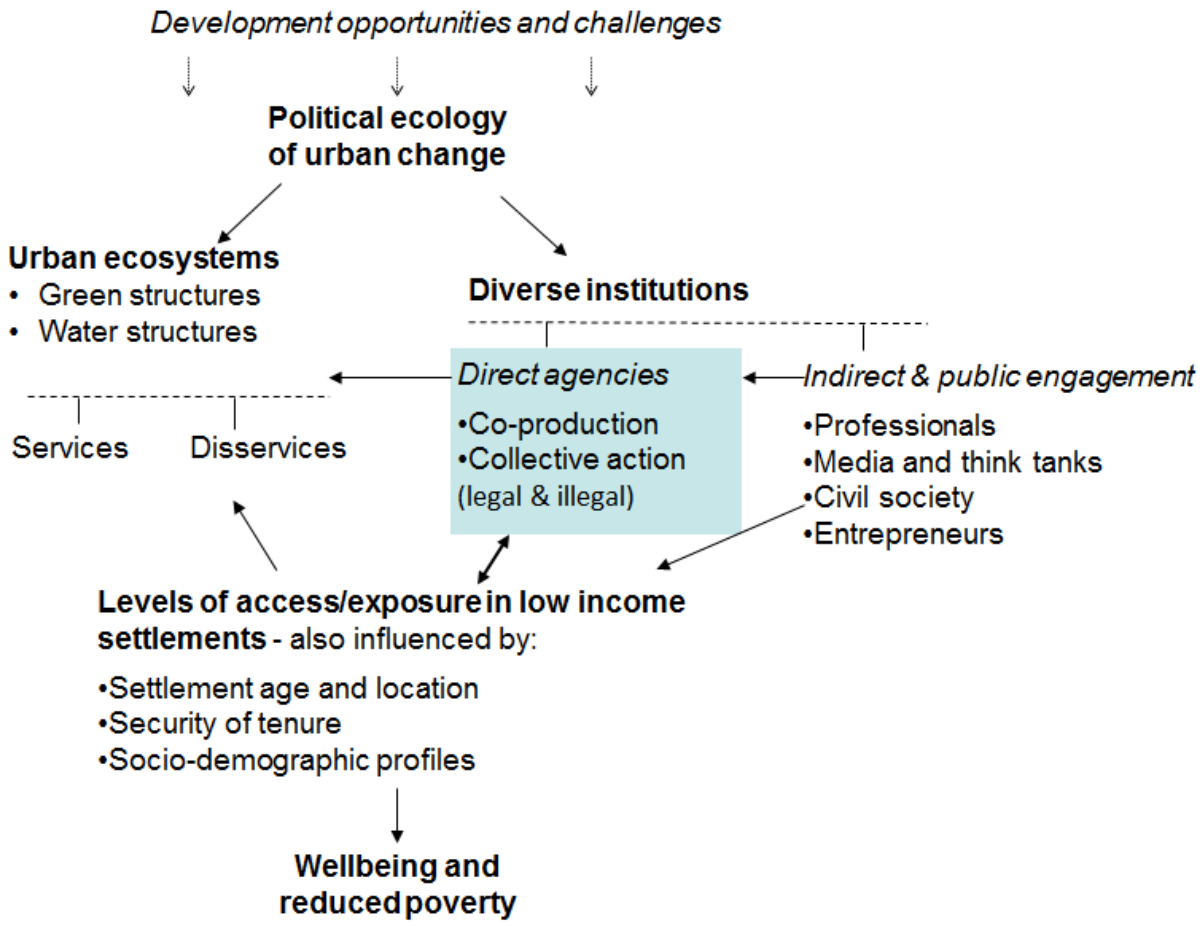
The hypothesis was: ***"A combination of collective action and co-production improves and expands urban poor people's access to services derived from green and water ecosystems and leads to improvements in wellbeing and poverty reduction"***.

The hypothesis focused on the importance of combining collective action and co-production, as instruments to improve the wellbeing of low-income households in informal settlements by improving their access to ecosystem services.

It is founded upon the central assumption that access/exposure to ecosystem services/risks for the urban poor is institutionally mediated. Mediation is articulated through three linked concepts: **urban ecosystems**; **political ecology of urban change**; and **institutional diversity** (Figure 1). At the city/national level, urban political ecology explains the way in which urban processes influence how the state defines the legal and political framework for managing urban ecosystems, as well as modalities for producing and distributing basic services to the poor and preventing ecosystems disservices. Urban ecosystems are in a state of constant change, influenced by development opportunities (e.g. increased industrial activities, due to

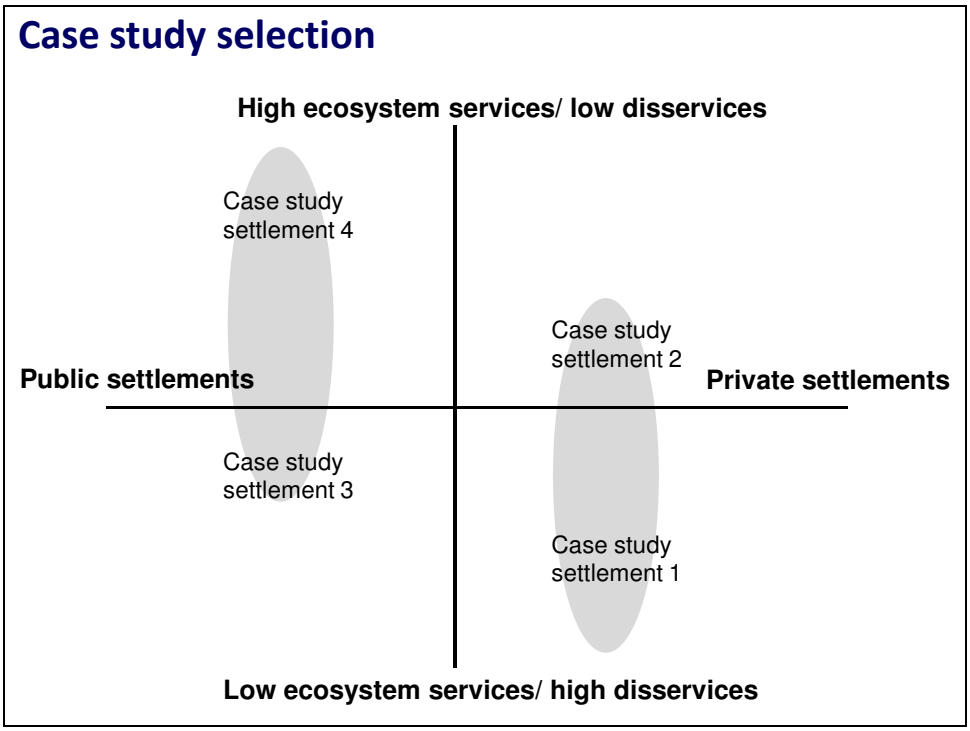
globalisation) and challenges (e.g. global financial crisis). The institutional modalities that translate these changes into services for poor people involve diverse actors at multiple levels, including government, private, non-governmental and community-based organisations. In practice, however, the urban poor rely predominantly on their own collective action, with some co-production. Success depends upon their solidarity, particularly with regards to collective action. They also benefit from the evolution of co-productive behaviours and practices, selective incentives, entrepreneur behaviours, and information from media and thinktanks, through indirect transfer of knowledge and expertise.

Figure 1: EcoPoor Analytical Framework



Dr Roy suggested carrying out an in-depth study of four low-income settlements connected to a network of green structures, with focused arees of interest, categorised in work packages (WPs) (Figure 2). He further displayed the type of data needed and methods he considered appropriate for acquiring those data and information. He suggested WP1 should cover the level of access to services and exposure to risks; WP2 should be on institutional arrangements for the green and water structures; while WPs 3 and 4 would be on wellbeing in various categories, such as nutrition, sanitation, income, and levels of exposure to pollution, among others.

Figure 2: Framing case study settlement selection



The matrix above illustrated the selection considerations for the four case studies for both the city of Dar es Salaam and Dhaka (a public or private settlement;[5] a neighbourhood with low or high ecosystem services). To conclude his presentation, Dr Roy presented a schedule for the work packages for the duration of the research (30 months).

3.2. **Mixed Methods**

For this multi-site study, emphasis is placed on city-wide networks and patches of green and water structures. This requires in-depth investigation in the four settlements, as well as spatial analysis through GIS and a historical (temporal) analysis of field sites, to understand changing land use. The significance of social relations and less tangible forms of wellbeing was also noted, justifying a mix of qualitative and quantitative methods in the four field sites.

Data and Methods: Social Sciences

Prof. Hulme described the data he required during the course of the research. These are:

(i) Communities' settlements history and maps (for crucial issues such as housing, micro businesses, etc.)

(ii) Institutional-level data –institutional maps, comprised of institutional profiles, key processes determining the performances in these institutions and contributing to services and disservices access, and also informal processes (non-organisation norms).

[5] For the city of Dar es Salaam it will be the informal and formal settlements in consideration, reflecting the use of terminologies between the two cities.

(iii) For the social sciences research package, the outcomes of the research (whether the wellbeing is improved) is necessary data; and

(iv) Critical incidences which could influence institutional changes, which in turn influence the state of wellbeing derived from better access of ecosystem services. These are longer-term processes of change.

The methods proposed by Prof. Hulme for the above were to use pre-existing data, but negotiating whether to also do a basic mapping of the situation by the commencement of the study. Another data source would be the mini census, while he suggested that key informant interviews would satisfactorily capture interests governing decision making, eventually influencing services/disservices access. Prof. Hulme proposed focus group discussions (FGD) and participatory data gathering with all sets/categories of people in the community.

Prof. Hulme emphasised the need to also use objective or subjective data, or both, as means of corroborating findings.

Methods and Data Needs: Physical Sciences

Dr Rothwell, a team member from the University of Manchester in the UK, led a discussion on data needs. He explained that the desired data needs to have a focus on water quantity and quality, and soil pollution. He is in favour of capturing spatial and temporal dynamics.

For water quality, specific data needs were faecal materials, oxygen-depleting substances (as these have effects on living organisms in water), the presence of heavy metals in water, nutrients, and microbiological information. Dr James would also test the water used by the community.

Data and Methods: Nutrition and Food Insecurity

Dr Mostafa listed the key issues for Bangladesh for the scope of this research project as: food insecurity, poor maternal nutrition, poor sanitation and hygiene and environmental enteropathy (a condition where children are exposed to toxins through a dirty environment, eventually causing malnutrition).

To show how contaminated water ecosystems could pose health challenges and problems, she shared some key findings following research she had conducted in Bangladesh on the impact of poor nutrition on children. Some serious health issues include 41% of children were stunted at the age of 15 months (short for their age) while 15% were severely stunted. In addition, 40% of the complementary food given to children was contaminated with faecal coliforms, attributed to faulty food preparation practices.

Dr Mostafa proposed that the study on her package should be an observational study, with a four-month period for data collection and analysis. The selection of the study area would be similar to the case explained earlier for Dar es Salaam; that is, four low-income neighborhoods connected to an ecosystem network across the city of Dhaka.

Information generated will include nutritional status and its contribution to health issues like height-for-age (stunted), weight-for-height (wasted) and weight-for-age (underweight). To process the data, she will use the ANTHRO software developed by the World Health Organisation (WHO).

As baseline information, Dr Mostafa gave comparisons between Bangladesh and Tanzania on the earlier described nutritional issues for children. She proposed the parameters for analysis – the microbiological assessments and dietary assessments. The analytical framework will

involve determination of socio-economic status and how it influences food security and hygiene and how in turn these impact children nutritional status (anthropometry), and the overall interrelationship with microbial food contamination. Other components she advises for the study are the extent of soil and water pollution and variables for collective action and/or co-production.

Contextualising Data Collection Methods in Dar es Salaam

Dr Shemdoe's presentation was about the type of data requirements, which are the city-wide network of green structures, obtained using the Urban Morphological Types (UMT) methodology, with major input from recent research by Dr Kibassa. Other data on the four settlements that will be identified through the methods described earlier, are the level of access to services, levels of exposure to risks, mediating institutional arrangements and wellbeing outcome.

He explained that the collection of data will abide by a participatory research framework, use of Geographic Information System (GIS) and a participatory evaluation of links between well-being and ecosystem. The analysis meanwhile will be a combination of qualitative and laboratory-based techniques, as well as spatial analysis and modelling. The data to be sought for Dar es Salaam are the satellite images for 2012, census data for 2012, hydrological records and hospital admission records. Other data include laboratory diagnosis of food contamination, and soil and water pollution. He proposed the possibility of training research assistants as laboratory hands, based on experiences from the Bangladesh counterparts, as they will start earlier in Dar es Salaam, and they have the resources.

Dr Shemdoe also presented a list of potential case study settlements from which the four low-income informal settlements for an in-depth study will be sampled out. The list comprises 160 settlements from the three municipalities of Dar es Salaam. Important institutions for this research are the central government (utility institutions serving the whole city), the local government (municipals where the settlements for in-depth study are located), non-governmental organisations (NGOs) and the media. He presented the team composition for the Dar es Salaam case (capacity), which includes researchers and assistant researchers.

Dr Shemdoe indicated an intention to involve Master of Science students in the research to acquire some data. This will be through partial assistance while the students are doing a final year research, not fully financing their MSc.

He further stressed the importance of dissemination of research results through publication. He said the focus should be on open access journals, which would ensure access of the information to decision makers as well.

4. Third Session: Field Site Selection

Prof. Agnew led an introductory session for discussion on selection of case study area. He highlighted the selection criteria, while Dr Roy explained a two-stage exercise/process through which to select the case study area:

- The use of a matrix/quadrant (see Figure 2 above)
- A table showing the frequency of a settlement occurrence in the collective action and co-production (table/matrix ranking settlements by co-production and/or collective action or both factors)

To each, the frequency (number of occurrences of a given case) is recorded in a respective section of the matrix and in the table, respectively. He explained that the settlements scoring highest frequency/mark will qualify as the richest, informative cases for the study.

Prof. Hulme chaired the process and the discussion on why each of the identified settlements was placed in specific areas of the matrix.

Participants gave explanations as to why the settlements they proposed are to be in a specific quadrant of the matrix, apart from being a formal or informal settlement along the horizontal scale. The next stage on selection of the case study area was based on the second exercise, where settlements where further assessed on whether they have collective action and co-production.

Eventually, plans for low-income settlements study sites were proposed as follows:

- Informal settlements with high access to ecosystem services - Goba
- Informal settlements with low access to ecosystem services - Magomeni-Sunna
- Formal settlements with high access to ecosystem services - Hananasif
- Informal settlements with low access to ecosystem services - Mabibo

Note: The EcoPoor team later visited these sites to select the final four settlements. They proposed replacing Goba and Mabibo with Uzuri and Bonde settlements.

A breakout session enabled attendees to split into two groups and discuss some of the critical elements of the methodological issues raised in Session 2. Group 1 discussed the proposed strengths and weaknesses of proposed methods and equipment to be used, whilst Group 2 discussed the process of harmonisation between methods and across countries.

5. Fourth Session: Forward Planning

5.1. Overview of Deliverables

Dr Roy introduced this session by once again reminding participants of the objective of the research as well as the main hypothesis. The relevant issues he communicated were the public service delivery model in practice versus the co-production model (progressive institutional structures). He explained the need to increase not only services for the people, but also the knowledge that will be produced, which is categorised as a methodological issue.

Another key message is the relationship between ecosystem services and wellbeing, where an important deliverable will be a narrative on how wellbeing is decreased or increased on access to ecosystem services. A point of concern raised here is that sometimes collective actions are not necessarily effective, especially when they exclude weaker community members. Also, on which conditions do the collective action and co-production survive or fail, which leads to the issue of generalisation? This being an academic/scientific work, the findings and their implications must be able to be generalised for Dhaka as well.

5.2. Dar es Salaam Implementation Plan

Dr Shemdoe presented a plan of action for Dar es Salaam under this research. Dr Shemdoe made reference to the four work packages which were identified earlier across the work schedule covering the research of 30 months. He elaborated on the three key subjects:

- WP1: What access to, and exposure to green and water ecosystem services/risks do the urban poor have?
- WP2: What institutional arrangements influence their access to ecosystem services at different levels?
- WP3 & WP4: Do collective action and coproduction improve urban poor people's access to ecosystem services and create a basis for developing effective institutions?

Dr Shemdoe described the task assignment for the Dar es Salaam research team members and finally gave an outline draft of deliverables with the time due for each (with the first deliverable, this workshop on development of the research framework counting as the first).

To achieve the deliverables in due time and with a plan to start in May 2014, he urged the coordinating researcher/overall team leader to facilitate the release of funds so that research activities could start the soonest. He informed participants of the Ardhi University calendar – in May the majority of researchers who are also teaching staff at Ardhi University would have ample time to work on the research.

Questions, Comments and Suggestions

- A participant suggested that, for more data/information, inclusion of other NGOs, such as the Centre for Community Initiatives (CCI) (directed by Dr. Tim Ndezi), together with the Women's Advancement Trust (WAT), be considered.

- A question was asked as to who in the Dar es Salaam team would be responsible for food insecurity issues. Dr Shemdoe explained that would be under work assigned for Dr Beth and Mr Nicholas Mwageni.

- A question was raised as to the date of the census from which the satellite images will be requested. The images are from the Year 2012; which is considered relatively updated/new enough for use in this research.

- A suggestion was put forward to see whether there is a need for more survey instruments in addition to what Dr Mostafa is working with. This was proposed to remove the "perceived" bias, as Mostafa's study appears to have concentrated on young families only. Improvement/modification to the survey was hereby suggested.

5.3. **Closing the Workshop**

There was an open discussion of surfacing issues, led by Dr Manoj/ Dr James.

- Dr Roy informed the Dar es Salaam team that there was a small amount provided for in the budget for hiring a community-based expert for each case study settlements. This would be a person "close" to the community and knowledgeable enough to extract the information required or to mobilise the community to take action positively. He urged Dr Shemdoe to see how to source this person to hopefully control this challenge.

It was queried whether there was to be a project website. Dr Roy confirmed that there would.

- This was followed by a discussion on the problems that may emerge with uploading some of the information onto the website. Despite the fact that research findings are to be widely shared by scientific and other communities, there is a risk that prospective publishing houses may argue that the information may not be suitable for publication as it may have been used in other publications unknowingly, in the course of sharing. Some deliverables such as working papers are normally lengthy and loaded with data.

Dr Roy specifically highlighted the achievement of the South-South collaboration, particularly on the methodology to be used and applied both in Dar es Salaam and Dhaka.

On project finances, Dr Roy was pleased to inform researchers that funding has finally been released and contracts will be signed by all parties very soon. He expressed his apologies for the delays in issuing the contracts. He highly appreciated the time and commitment of

partners from Dar es Salaam, Manchester and others, for being involved in the work despite lacking contracts.

He was grateful for the work plans prepared.

Dr Shemdoe also thanked all participants for making time to attend the workshop.

6. Conclusion

The Dar Workshop proved a highly productive exercise. Not only did it produce a solid base for implementing the EcoPoor project in Dar. It also highlighted key concerns that the research needs to be mindful of. In terms of supporting project implementation:

- The participants were able to analyse the project framing with their knowledge of ground realities in Dar. They presented facts, raised concerns, shared ideas and above all, registered their ownership of the project.
- The participants successfully shortlisted four candidate settlements from a list of pre-selected settlements. Follow-up field visits enabled the team to select the most relevant four case study settlements needed.
- Having been organised immediately before the Dhaka meeting and with participations of both the UK and Dhaka team members, the Workshop has made significant progress towards identifying the elements of comparability/contrast between Dhaka and Dar.
- The Workshop also generated awareness about the importance of research impacts right from the start.

The final discussion raised some concerns that emerged throughout the day. These include:

- Acknowledgement that the distinction between co-production and collective action needs to be clarified.
- Concern on whether to tackle the research as a broad subject or narrow it down.
- A possible lack of community collective action in Dar es Salaam.
- The final concern is a methodological one: an interdisciplinary approach is desirable but challenging. A particular issue is transferring the expertise held at ICDDRB (Dhaka) to Dar es Salaam. The project team is keenly aware of this issue, and has been developing a strategy to promote a series of Dhaka-Dar research exchange visits.

Annex 1: List of Participants

Country	Name of Participant	Affiliation
Tanzania	Dr Riziki Shemdoe	Senior Research Fellow and Director of Postgraduate Studies, Research and Publications at Ardhi University, Dar es Salaam
	Professor Mengiseny Kaseva	Professor of Environmental Engineering, Ardhi University, Dar es Salaam
	Dr Neema M. Ngware	Senior Lecturer, Institute of Human Settlements Studies, Ardhi University, Dar es Salaam
	Dr Betty Waized	Lecturer, Sokoine University of Agriculture, Tanzania
	Mr Onesmo Zakaria Sigalla	Researcher and Consultant, MO Resources Ltd, Dar es Salaam
	Dr. Deusdedit Kibassa	Research Fellow, Institute of Human Settlements Studies, Ardhi University, Dar es Salaam
	Mr Nicholaus Mwageni	Assistant Lecturer, Environmental Pollution, Ardhi University, , Dar es Salaam
	Mr Lazaro Mngumi	Assistant Research Fellow at the Institute of Human Settlements Studies at Ardhi University, Dar es Salaam
	Ms Elinorata Mbuya	Research Assistant - Urban Poverty, Ardhi University
	Ms Bertha Sambo	Research Assistant - Urban Poverty, Ardhi University
Bangladesh	Dr Ishita Mostafa	Researcher, Centre for Nutrition and Food Security at ICDDR,B
UK	Dr Manoj Roy	Lecturer in Sustainability, Lancaster Environment Centre, Lancaster University
	Prof David Hulme	Professor of Development Studies, Brooks World Poverty Institute, University of Manchester
	Prof Clive Agnew	Professor of Physical Geography and Vice President for Teaching, Learning and Students, University of Manchester
	Dr James Rothwell	Senior Lecturer in Physical Geography, University of Manchester

Annex 2: Workshop Programme

9:00-9:30	**Registration & Coffee**	
9:30-11:00	**Session 1: Contextualising the ESPA project in Dar** (Chair: David Hulme; Note taker: Elinorata Mbuya	
	15 min 15 min 15min 45 min	Manoj Roy: The ESPA project background, objectives and framing Nicholaus Mwageni: Urban poverty in Dar – trends, living conditions (incl. settlement types and spatial distribution), livelihoods, health & nutrition and institutional structure Deusdedit Kibassa: Urban green and water structures in Dar: availability; quality; derived services/disservices; and management and policies Discussion around three core questions: (a) Institutions; (b) Physical environment; (c) Poverty/health/ wellbeing
11:00-11:30	**Coffee**	
11:30-13:00	**Session 2: Methodology** (Chair: Clive Agnew; Note taker: Elinorata Mbuya)	
	15 min 15 min 15 min 20 min 25 min	Manoj Roy: Overview of proposed methodology David Hulme & James Rothwell: Methods and data needs for institutional and ecosystem structures/services/disservices analyses [Manoj to assist in preparation] Ishita Mostafa: Methods and data needs for anthropometry, food security and nutrition – based of Dhaka work Riziki Shemdoe: Applying these methods to Dar – approach; data availability and needs; identification of candidate case study settlements and important institutions; and reflection on team composition & strength. Chair to facilitate: Selection of four case study sites, which will involve: (a) agreement on criteria to be use; (b) grouping of candidate slums into four categories; (c) ranking of slums under each category.
13:00-14:00	**Lunch**	
14:00-15:30	**Session 3: Discussion on project methodology though break-out sessions**. We will split into two groups to look in details some of the critical elements of the methodological issues discussed (esp. what we measure) in Session 2. [Manoj to guide group selection].	
	45 min 45 min	***Group 1*** (Clive to facilitate; Note taker: Deusdedit Kibassa): Strengths and weakness of proposed methods & equipment to be used – are there any killer arguments. How do we overcome these weaknesses, if any? ***Group 2*** (Riziki Shemdoe to facilitator; Note taker: Elinorata Mbuya): How do we harmonise between methods and across countries? What overarching concept do we follow in case study selection in both countries? What generalisations may we aim for – what variables should we look for that? What contrasting aspects may we aim for – what variables should we use? Reporting back (David to facilitate; Note taker: Elinorata Mbuya)
15:30-16:00	**Coffee**	
16:00-17:00	**Forward planning** (Chair James Rothwell (TBC); Note taker: Elinorata Mbuya)	
	15 min 15 min 30 min	Manoj Roy: Overview of proposed deliverables Riziki Shemdoe: Implementation Plan for Dar Discussion and closing