

SNF PROJECT-KAMPALA HOLDS CITY CONSULTATION

Turning environmental burdens into livelihood benefits

COUPLING URBAN POVERTY AND ENVIRONMENT



This Pull out to the SNF-Kampala newsletter is a summary of the salient issues discussed at the City Consultation workshop which was organized by the project team in partnership with the community and other stakeholders between November 13th -14th, 2008. In the 3rd year of implementation and currently in the pilot phase, knowledge on the research foci of environmental burdens and poverty has been generated after a series of diagnostic studies. The key knowledge outputs are about the nexus between poverty and environment as well as lessons on the community innovations to deal with the environmental burdens. In knowledge management dissemination is a key element for policy influence and change by linking knowledge to policy action as well as development practice. One way of linking research and policy is through initiating productive self-driven networks to support information flow and share ideas for action across diverse stakeholders. This needs to be supported by effective communication among researchers, policy makers and other stakeholders. Through a mixed communication channel approach, knowledge from the studies has been shared widely in the community, with policy makers and between the participating cities in the Focus Cities Research Initiative of IDRC. As part of the operational plan for all Focus Cities projects, the Kampala team held a networking event involving boundary partners at municipal and city level to share the knowledge and good practices. The city consultation attracted policy-makers at municipal and city-wide level, community members, Civil Society Organizations and Researchers. The workshop objective was threefold; To network with policy-makers by sharing findings of the diagnostics studies on the various aspects of the project foci; To provide a forum for learning-based exchanges and generating ideas for enhancing identified solutions for desired results on easing poverty and environmental burdens; and To initiate a process for building trust, working relationships, and networks among the various stakeholders on urban poverty and environment in the project site and city.

Policy Pointers

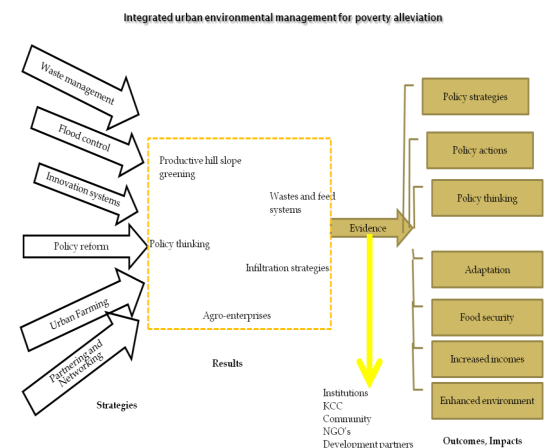
- ◆ **Environment and poverty** are intertwined and so should the solutions to reduce urban vulnerabilities
- ◆ **Wastes, flooding and health** are linked that require an integrated approach
- ◆ **Tackling urban poverty** can tap into community level opportunities in agriculture
- ◆ **Community innovations** important in improving living environment
- ◆ **Economic burden of a poor environment** is costly that providing water and environmental services can save the city and nation

Urban environmental Policy: a need for an Integrated approach

Although Kampala city is extensive, the national environmental policy largely covers broad terrestrial and aquatic ecosystems, targeting industrial pollution, wetland management and air pollution. This creates a gap in urban focused policy to deal with urban environmental challenges. The broad nature of environmental policy has tended to obscure the importance of focusing on urban environmental management which is a major driver of the environmental changes in the peri-urban and rural areas. These policies and laws need to be harmonized to ensure sustainable management of the urban environment. Associated to the need for harmonization is the requirement for urban greening and proper waste management. These areas need to be addressed for sustainable utilization of land especially on hill tops while maintaining land cover that could mitigate flooding and air pollution in the city. The greater benefit of harmonization would be integration of environmental issues.

Sustainable urban development needs to be coupled with easing of urban poverty. The policies needed are those that address social well-being while maintaining the basic services from the ecosystems. The growing social and environmental conflicts in urban systems also call for good urban governance. Good urban governance could greatly benefit from “social capital”

due to the existence of grass-root based organizations. On the other hand, urban planning needs to be innovative so that planning is done with ‘nature’ for sustainable urban environmental management. Such a redefinition would address the stinging burden of wastes, flooding, poor housing and environmental services. policies are not only a direct derivative from research recommendations but are sometimes rather a more inclusive process of action-research that engages policy makers.



MANAGING WASTES FOR A BETTER COMMUNITY ENVIRONMENT

Wastes are a chronic environmental problem in many communities of Kampala. An estimated 75% of the wastes generated in the community is organic and 3/4 of this comprises banana, sweet potato, potato and cassava peelings. In Kasubi-Kawaala each person produces about 1 kg of solid waste per day. With an average household size of 4 an estimated 1,960 tons of garbage per month is generated and 1,470 tons organic. The costs for disposal vary between sorted waste for Ug. Shs 200-300 per week and non-sorted waste for Ug. Shs 1000 per week. The community is adopting proper garbage management of sorting, recycling and re-use. These innovations have helped in; reducing garbage, contributing to flood mitigation, and generating income

Several individuals and groups have started waste sorting-processing to produce animal and poultry feed to fill the gap created by the high cost of maize bran. One of the group is Kawaala Recycling and Manufacturing Group (KARMADEG) that collects banana and cassava peelings to produce animal and poultry feed supplementing maize bran. The peelings are dried, milled and mixed in ratios with maize bran as supplements to poultry feed. Drying 6.6 kg of raw peelings yields 1 kg peelings. This means that 1 ton yields 151.51 kgs of dried peelings. In addition, peelings are bought at an average of shs 8500

per raw tonne. 15,600 per 100 kg bag provides a starch enrichment of 25% of maize brand as compared to the usual minimum cost of maize bran shs 30,000. This therefore, reduces the cost of feeds by about 36% making it possible for ordinary farmers to carryout poultry and piggery. Peelings are also used directly as feed for piggery and dairy cattle. Of all these management practices, peelings for poultry is a promising enterprise that would be a double edged solution to poverty and community environment.

Other emerging waste economies include recycling and reusing of plastic materials and metal scrap. With a plastic recycling industry in Kampala, plastic bottles for mineral water are now being collected and sold at an average price of Ug Shs 800 per kilogram. These two have emerged as a significant enterprise for youth providing employment opportunities.

With reduction of organic wastes from peelings and plastic bottles which have continuously choked the drainage systems, the environmental benefits are many; contribution to reduced health problems, reduced flooding, reduced costs of municipal management of wastes, improved living environment, attitude towards wastes and intercepting urban poverty.

FLOODING, ITS CAUSES AND POSSIBLE SOLUTIONS

Floods like wastes pose a serious threat to life, property, livelihoods and economic productivity to many residents of the community and Kampala in general. A participatory flood assessment revealed that 40% of the households are affected by floods within the micro catchment. About 53% of the affected households experience floods when it rains heavily, 35% when it rains for many consecutive days and 12% irregularly. Of the households affected by floods, 19% considered themselves more affected whenever floods occur. The perceived major causes of floods are categorized as; blockage of drainage channels and unplanned construction (28.6%), settlement in wetlands (14.1%), small and blocked drainage channels (16.2%), much rainfall (13.1%), poor drainage maintenance (12.4%), the construction of the northern bypass and settlement in wetland (8.9%). The phenomenon occurs generally during the rainy seasons and more particularly between March-May and August – October, and water recedes after a period of 1 day to 1 week (86 % of cases) depending on the frequency of storms. The flood prone areas are wetlands and flat areas around the main stream, which is 7.4% of the surface area of Kasubi-Kawaala micro-catchment. A computer based assessment of floods shows that due to construction on hill slopes, the runoff discharge is high in the streams with an estimated at 11.26 to 87.78 10^{-3} m³/s runoff. But it also reveals that flooding in the community is caused by activities and developments elsewhere within the catchment that includes areas such as Kalerwe, Kyebando, Mulago, Makerere and Kanyanya. In this micro-catchment is a combination of the type of terrain and the density of housing units with the former comprised of relatively big proportions of steep and long slopes, which can generate high amounts of runoff. Related to the discharge is the poor management of wastes

with households depositing wastes in the various streams, open spaces while many burn the garbage. Floods are also linked to contamination and health challenges. Soil samples were studied for chemical contaminants including, lead and cadmium. Results of dumpsite and soil samples show a mean concentration 59.64 ± 6.12 mg/kg above the WHO standards and indicating a high risk of exposure to the community. Biological contamination was also assessed and it was established that pit latrines play an important role due to the variable water table in the area. Saturated underground water flow directly connecting sewage to water flowing channels leading to biological contamination particularly *E. coli*, with levels ranging between 150 – 540 cfu/ml. This exposes produce and eventually humans to health risks.

Some of the identified solutions to flooding include;

- ◆ building capacity to predict and model land use changes linked to flood hazards
- ◆ Enhance city-wide drainage planning using an integrated storm water management approach.
- ◆ Redirecting storm water into natural drainage catchment
- ◆ Designing multi-functional urban spaces (such as urban parks and fields that act as storm water retention areas during heavy rainfall
- ◆ Integrating irrigation for urban agriculture and other water reliant sectors into city drainage planning
- ◆ Developing localized good practice guidelines for different run-off contributing areas of the city (such as for communities on upper vs. lower slopes)

ECONOMIC BURDEN OF POOR URBAN ENVIRONMENT

Like many rapidly expanding African cities, Uganda's capital city Kampala is beset by serious and growing social, economic and environmental challenges. Characterized by a pattern of flat-topped hills and wide, shallow valleys, residents of Kampala's poorer divisions suffer from several environmental burdens, including flooding caused by unplanned human activities in the wetlands and inadequate drainage systems; frequent outbreaks of waterborne epidemics caused by sub-optimal water and sanitation facilities; and the nuisance and health risks of garbage accumulation, caused by inadequate solid waste management practices.

Kawaala-Kasubi, a densely populated area and one of the "poverty hot-spots". It is characterized by informal settlements with limited services and infrastructure. The area suffers from several environmental burdens, especially flooding because the area lies at a confluence of run-off water from the hills of Kasubi, Kawaala, Makerere leading to floods. Property, livelihoods and houses are destabilized. Flooding spreads organic and inorganic wastes – and contaminants - when overflowing during the rainy season. Flooding also makes impassable the narrow earth roads that connect this neighborhood to the major food markets.

Surveys were conducted in 3 parishes: Kasubi, Makerere II and Bwaise III focusing on defensive expenditure and direct costs of illness expenditure. Results indicate that:

- ◆ A small number of households reported buying bottled water. In the

survey, 39 households (7.8% of the surveyed population) have reported average expenditures of 13.56 USD per month, representing approximately 11.35% of monthly income;

- ◆ Expenditures for boiling water were reported by 454 households. Total weekly expenditures for this activity were estimated to reach 655 USD per week, representing approximately 1.44 USD per household per week, or 5.76 USD per month. These expenditures represent 9.17% of the income reported by these households;
- ◆ The cost of treating water-related illnesses represent approximately 17.5% of household income once the value of lost working time is included.
- ◆ Spread to entire neighborhood, estimates of household expenditure on water-related diseases is \$ 17.4 millions annually
- ◆ Costs for treating illnesses for clinics is \$ 300,000 annually
Given this huge economic cost, urban policy is needed
- ◆ Possible urban policy responses;
 - ◆ Extension of clean water supply to neighborhoods Maintenance of such supply systems to avoid contamination

COMMUNITY INNOVATIONS FOR SCALABLE SOLUTIONS

The waste challenge has sparked off community-led innovations to deal with garbage accumulation. These include; re-using peels for livestock feed, vegetable farming, fruit trees, composting, briquette making, recycling plastics to make bags, mats and selling materials to recycling plants. The innovations are progressively growing to a scale that would have a significant impact on reduction of waste accumulation. The project has designed a seed grant plan that would help capitalize the innovations and enable them to be stirred up within and out of the community. Innovations in the community were presented through exhibitions at the consultation workshop and a panel of community members who spoke about what they were doing. A respected team of community panelists including Sarah Kaddu, John Kisiga, William Tamukedde and Specioza Musoke informed the workshop on how local leadership can be supported to stimulate community response to the challenges. They also illustrated waste recycling techniques targeting plastics, peelings for poultry feed and space confined technologies of mushroom production. In summary the major issues relevant for policy that were raised include;

- ◆ Community-based **Change Agents** as an innovative model to stimulate communities in managing the problems within neighborhoods. Change agents were identified as people who are knowledgeable and around who knowledge, skills and technologies can diffuse into the community. Since they are part of the community, it is relatively smoother for members to adopt from them.
- ◆ Coupled with change agents, it is important to identify and support **Community Innovators** to enable them share

knowledge and skills among the community. A number of them in the project site expressed willingness to teach others at no cost initially.

- ◆ An important aspect of poverty-environment relationship and breaking the cycle is **Urban agriculture** which is different and makes a difference. Urban agriculture that utilizes space confined technologies
- ◆ It was clear that there are many good practices in the community and around. But these have not been popularized. Therefore **Knowledge sharing and networking** was found to be crucial in enabling up and out scaling of solutions to urban environment. This would be through information flow on new techniques, skills and technologies.
- ◆ Communities are **research partners** and their contribution to knowledge generation needs to be recognized. This issue became clear in the research findings of the diagnostic studies that were participatory. Most 'innovations' were actually existing that the project enabled stimulation and scaling up. This is continuing by way of 'seed grants'.



POLICY RESPONSE IDEAS FOR AN INTEGRATED APPROACH TO URBAN ENVIRONMENTAL MANAGEMENT



The city consultation workshop was spiced by interactive discussions by the participants who reflected on policy issues related to the knowledge shared by the team and community. A summary of the key issues discussed is as below;

- ◆ Councilor Lucy Miwanda shared her experience with presenting Kampala's success story of policy change on urban agriculture during the World Urban Forum November 2008 in Nanjing. Participants applauded this success and called for support of urban agriculture
- ◆ Councilor Doreen Nakatya launched a book with research knowledge on aspects of urban agriculture titled "City Harvests". Written by different authors and co-published by Makerere University press and Urban Harvest, this resource book for policy makers, researchers and city managers was dedicated to Winnie Makumbi who played a significant role in promoting urban agriculture
- ◆ City councilors including Godfrey Asiiimwe (deputy speaker), Caesar Tokoma (secretary for Health) and others expressed desire to have researched information in a simplified format for use in deliberating and formulating policy.
- ◆ Participants underlined the importance of research for policy making and the need for more close collaboration among researchers, policy makers and civil society organizations.
- ◆ The economic costs of poor environment raised the value of planning and the need to consider societal costs of inaction.
- ◆ Research-Policy linkages were emphasized and a general consensus called for
 - ◆ Evidence-informed policy
 - ◆ Researchers argued to share the knowledge with policy actors
 - ◆ Utilization of researched information by Policy makers in the city



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Attendance List of City Consultations conference

Agnes Yawe – Environmental Alert
 Aisha Taamale – Change Agent
 Ali Kato – Youth
 Andrew Charles - Intern
 Andrew Sekamwa – Kawala I
 Araali Kafuzi – Chairperson Makerere
 Betty Onek Rusoke -Kampala City Council
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 Charles Sserubiri – Sec. for production Kawempe

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 Doreen Naakatya – KCC
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 Elvira Kuchar - Intern
 Ephraim Ssegawa – Kasubi IV
 Frank Ssbuuya – Kasubi I
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 G.W Tamukedde – KARAMADEGE
 Godfrey Asiiimwe – D/Speaker KCC
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 Hasifa Balinda – LC II Bwaise III
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 Ibrahim Balibulala – Makerere
 Jackson Ssemubwe – C/N Makerere II Zone D
 James Kizza – KARAMADEGE
 James Lwanga – Makerere II
 Jamilah Kajumba – Bwaise III
 Jesca Nakawunde – Mugema
 John Baptist Muwonge – Namungoona Kasubi
 John Kibirige – Wugema Zone
 John Kisiga – KACODA
 John Mary Ssebuwufu – Councillor LCV, KCC
 John Muwanga – MAAIF
 Josephine Muwanguzi – Change Agent
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 Kamadi Mwanje – Kawaala II
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 Ronald Kiwanuka – Namugogma
 Ronald Lutalo-Environmental Alert
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 Samuel Mawanda – Kasubi Zone II
 Samuel Toloko – KCC
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 Sarah Kimeze – MAAIF/KCC Team
 Sarah Nakisozi – Makerere II Zone D
 Scott Ssempebwa – Kasubi I
 Shuaib Lwasa - Project Leader
 Specioza Musoke – Kawaala I
 Stanley Ddungu – Councillor Kwempe
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 Steven Lumwama – Change Agent
 Sulaiman Sebuuya – C/Man Kawaala
 Suzan Kigongo – Kasubi I
 Swaibu Ssonko – CLEDC
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 Vincent Kisuu – Makerere Zone A
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