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Dreaming of toilets: Using photovoice to explore knowledge, attitudes and practices around water-health linkages in rural Kenya



Elijah Bisung ^{a,c,*}, Susan J. Elliott ^a, Bernard Abudho ^b, Corinne J. Schuster-Wallace ^c, Diana M. Karanja ^b

- ^a Department of Geography and Environmental Management, University of Waterloo, 200 University Avenue West, Waterloo, Ont., Canada
- ^b Center for Global Health Research, Kenya Medical Research Institute (KEMRI), Kisumu, Kenya
- ^c United Nations University Institute for Water Environment and Health, Hamilton, Ont., Canada

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ABSTRACT

As part of a knowledge, attitudes, practices and empowerment (KAPE) project implemented by the United Nations University Institute for Water, Environment and Health (UNU-INWEH) in the Lake Victoria Basin, this paper reports findings from a photovoice study with women in Usoma, a lakeshore community in Western Kenya. Drawing on ecosocial and political ecology theory, findings reveal that access to water, perceptions and practices were shaped by ecological and broader structural factors. Further, collective actions to improve access were constrained by institutional and economic structures, thus (re)enforcing inequalities.

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1. Introduction

For over half a century now, there have been significant global initiatives and a developing political consensus to improve access to safe water and basic sanitation. Beginning in 2000, the Millennium Development Goals (MDGs), particularly those related to water, became the major global agenda with targets and benchmarks for improving access to water and sanitation (UNDP, 2003). Due to the interconnected and mutually reinforcing nature of the MDGs, it is widely agreed that achieving the water and sanitation MDG targets is key to achieving the other MDGs (Mehta and Knapp, 2004). For example, achieving water related MDGs is regarded as key to reducing child and infant mortality (MDG 4), pre and postnatal risks (MDG 5) as quantified by Cheng et al., (2012) and prevention of vector borne diseases such as malaria (MDG 6C). Further, with the sunset of the MDGs in 2015 and the continued need to improve access to drinking water for 700 million and sanitation for 2.5 billion people, the world is currently discussing post-2015 within the context of sustainable development goals (SDGs). Desired outcomes from the proposed water goal - i.e. universal access to water, sanitation and hygiene by 2030 - under the proposed SDGs include improved maternal and child health,

E-mail address: ebisung@uwaterloo.ca (E. Bisung).

improved nutrition and better educational outcomes for girls (UN Water, 2014).

In attempts to understand the complex linkages between water and health, an important strand of research in health geography has been studies that examine the environmental, social and political processes that simultaneously shape disease patterns within the context of water. These studies have explicitly invoked the political ecology of health framework (Mayer, 1996) as well as ecosocial theory (Krieger, 2011) as integrative approaches to elaborate conceptual connections between broader environmental and socio-political processes - at various levels - and waterrelated disease distribution. For example, through an examination of a cholera outbreak in the Marshall Islands between 2000 and 2001, Yamada and Palmer (2006) concluded that the outbreak could be considered a biological embodiment of political, social and economic conditions as well as ecological imbalances. Though lack of water was a major cause of the outbreak, other socio-political conditions such as; overcrowding due to displacement of populations for US nuclear activities, poor living conditions, and social differences between land owners and the landless, were seen as major precursors. Similarly, Hunter (2003) demonstrates links between construction of agricultural dams and schistosomiasis in the Upper East Region of Ghana. A combination of ecological, political, economic, and social factors was regarded as main catalysts for the construction of the dams and the subsequent unpredictable disease outbreaks (Hunter, 2003). Echoing similar conclusions through his work on cholera and bacillary dysentery in Mozambique, Collins (2002)

^{*} Corresponding author at: Department of Geography and Environmental Management, University of Waterloo, 200 University Avenue West, Waterloo, Ont., Canada. Tel.: $+1519\,888\,4911x38856$.

suggested that changes in patterns and processes of change in diarrhoeal incidence were shaped by changing environmental and societal factors that affected the ecology of the disease as well as overall development trajectory and livelihood security. More recently, Mulligan et al. (2012) drew attention to connections between economic transformation, urbanisation, urban planning and dengue fever in Putrajaya, Malaysia.

Adding to this nascent literature, this paper examines health and well-being in a rural lakeshore community in western Kenya within the context of lack of safe water and adequate sanitation. Specifically, the objectives of this paper are to (a) explore local perceptions and practices around water-health linkages: and (b) to explore how the ecological and socio-political environments shape these perceptions and practices. In doing so, we unpack some of the structural forces that not only drive water challenges in the community but also serve as barriers to community action. This research forms part of the Knowledge, Attitudes, Practices and Empowerment (KAPE) project headed by the United Nations University Institute for Water, Environment and Health (UNU-INWEH) and implemented in collaboration with Kenyan Medical Research Institute (KEMRI) and local communities in East Africa. The overall goal of the KAPE project is to educate and build capacity of local communities around water and health and empowering evidence informed decision making.

2. An ecosocial approach to understanding water-health linkages

This research draws on Krieger's (2011) ecosocial theory to investigate ecological and structural factors that determine waterrelated health outcomes. Ecosocial theory explicitly incorporates constructs pertaining to political ecology, ecosystems, spatiotemporal scales and embodiment (Krieger, 1994, 2011). In integrating these constructs, we examine how socio-political processes, economic structures and ecologic settings together shape practices around water, access to water and economic activities in the Lake Victoria Basin. We give particular attention to two core constructs (embodiment and accountability and agency) of ecosocial theory. Embodiment literally refers to how humans incorporate, biologically, their lived experiences, in societal and ecological contexts (Krieger, 1994). Embodiment requires understanding of the different social processes and circumstances that become "embodied" to generate disease profiles, health and well-being. With regards to water, engagement with these social process and structures is important as inequality in access is increasingly an outcome of mutually constituted interplay between geographical conditions, technology and socio-political arrangements in society (Bisung and Elliott, 2014; Swyngedouw, 2009).

Accountability and agency directs attention to factors that (re) enforce inequalities in water access and the ways these inequalities are addressed. This construct also directs attention to institutional and individual capacity to take action (agency) to improve access and the need to take responsibility (accountability) for any (in)actions. The many instances of individuals and community groups undertaking water and sanitation interventions or countering injustices in water delivery systems underscores the importance of accountability and agency. For example, the successes of community led total sanitation projects in Africa, Asia and the Middle East (Kar and Pasteur, 2005) and the well-known water protest, la Guerra del Agua in Cochabamba, that led Bolivia's thirdlargest city to cancel its private water concession contract in 2000 (Murthy, 2013) points to the centrality of human agency and collective actions in improving access. While ecosocial theory considers the role of agency in improving conditions and health, it also recognises that macro-level structural phenomena may sometimes drive or constrain the capacity of individuals or communities to act (Krieger, 2011).

3. Research context

This research was undertaken in Usoma, a lakeshore community located about 15 km from Kisumu - the third largest city in Kenya (Fig. 1). Based on a household survey implemented as part of the larger research project, the community has approximately 3000 residents. Though located by the second largest freshwater lake in the world, the community had no access to safe water at the time of this study. The nearest safe water source was a tap located about 3 kms away on the premises of a Coca-Cola bottling plant. With regards to sanitation, access to adequate sanitation is significantly lower than Kisumu, with 42% of the population practicing open defecation (Bisung et al., 2014) as compared to 5% in Kisumu (Maoulidi, 2010). Continuous contact with the lake through economic activities such as fishing and domestic water collection has resulted in high incidence of water-borne and other water related diseases. For example, studies reveal high rates of schistosomiasis in the community, with over 90% infection rate among school children (Shane et al., 2011).

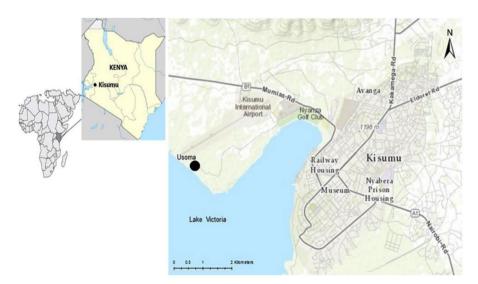


Fig. 1. Study Site: Usoma, Kenya (Bisung et al., 2014).

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