

## CHAPTER 12

### *Climate Vulnerability and Resilience in Local Communities*

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In any climate justice work, which by definition is focused on the needs of the most vulnerable people, it is important to acknowledge that the most vulnerable can also show the greatest resilience. Approaching climate change with a justice lens recognizes the effects that climate impacts have on the world's most vulnerable people, which include women, children, the poor, and the marginalized. The relationship between the most vulnerable and water is a good starting point for action research on climate change adaptation.

Inherent to this process is the need to recognize that “knowledge is in the room”. Facts and knowledge are not only products of academic institutions and research bodies, but also of communities and grassroots movements. In identifying solutions that work best at a local level, traditional knowledge and community-based knowledge are vital.

In order for climate justice work to be participatory and include the most vulnerable, the process must be about more than just representation. At the start, we can look around and ask, “Who is not here?” Is everyone affected by this issue, and by our work, part of our own discussions and decision-making? However, other important questions to ask are about the issues of power and how the relationship between those present brings about change.

Because international agencies stress the importance of representation, most often in the form of gender analysis, project proposals tend to include indicators to

measure representation and who participates in training. However, the quality of participation and the impact is often harder to measure and discuss. We can use gender as an example in examining the dynamic between representation and participation.

Women are often identified as those most vulnerable to climate change, so gender is an important lens to consider when examining interventions for climate change adaptation. The United Nations states, “Women are more vulnerable to the effects of climate change than men—primarily as they constitute the majority of the world’s poor and are more dependent for their livelihood on natural resources that are threatened by climate change” (UN Women Watch, 2009). Extreme weather events and changing climatic patterns affect women’s access to and use of water for agricultural, income-generating and household purposes. Furthermore, women are generally more aware than men of the needs of the household – how much water is needed for drinking, cooking, washing, and even sanitation. Women are also aware of needs for water in relation to reproductive and maternal health and caregiving. This responsibility should situate women at the center of discussions about climate change’s impacts on household water resources.

The effects of water scarcity on low-income communities compound the gender dimension. Ethne Davey, Chairperson of the Gender and Water Alliance, points out that inadequate access to water is not gender-neutral in its consequences (Davey, 2012). The important role of women in water governance cannot be underestimated.

This said, the concept of gender can be very misleading. It can construct societies in ways that outside funders want to see, or that some participants may find strange. It can ask questions that do not seem important to some participants. Gender equity -- having equal numbers of women and men as participants -- is not necessarily a meaningful measure of people's contributions to a project. Having good representation from women may not necessarily bring about the best outcomes. For example, at times a man may be able to contribute more meaningfully and think more openly about gender implications than a woman. Or women, in a particular community, may exert power "behind the scenes" which is not readily apparent if you look at who is present at formal meetings. And even if women are present, their voices might effectively be overshadowed by men's voices or even by those of other women who hold different class, ethnic or other social positions.

Building good representation is important. Our partner, Kilimanjaro Initiative, uses a quota system in its sports programs to encourage the participation of girls in its programming (i.e., one girl must be playing at all times on their soccer teams, even if most of the players are boys). This approach builds bridges between boys and girls, as boys need to recruit girls to play on their teams and girls become an integral part of the process. However, even with strong representation, community meetings and processes can still be an unequal playing field.

Examining the barriers of girls and women to being heard once they are present is also important. Do women have equal access to raise their concerns? Do women have equal access to community and broader political structures where

collective actions are discussed and decided? Gender awareness training can be a simple way of initiating a discussion with all participants about the different impacts that climate change and changing water resources have on women. These discussions can also be a gateway to talk about other justice dimensions, as well. In planning our work, we can try to map the participatory challenges for each activity or initiative – since they will differ depending on the situation and circumstances. In evaluating and reflecting on our work, we can consider how participation affected what we did, and the outcomes. We can develop guidelines or questions to ask ourselves about the quality of participation from all those affected.

The dynamics between representation, equality and participation can be discussed in a larger framework of social power. In understanding social power, it is important to consider three main instruments through which power can manifest itself. Paul Speer and Joseph Hughey describe these three instruments using the theories and concepts formed by community organizers such as Saul Alinsky and others.

To begin, Saul Alinsky determined that social power in its most basic understanding determines that those with the greatest resources (financial or social capital) have the greatest power (Speer & Hughey, 2008). A community process, such as the workshops and meetings convened by project partners, may have strong representation from women, community leaders, youth, and the marginalized, but still those with the greatest resources within that particular setting will likely influence the progress or outcome from that group.

Second, social power can also manifest itself in the ability to construct barriers to participation or eliminate barriers to participation through setting agendas and defining issues (Speer & Hughey, 2008). By controlling the topics, timing of discussion, and range of discourse on a topic, those with relatively more power can effectively limit participation and inclusion of perspectives in public debate by the relatively powerless.

The third instrument of social power concerns the way people think – the shared consciousness that is expressed through myths, ideology, and control of information (Speer & Hughey, 2008). This means that social and cultural norms or even ideas propagated by leaders can determine the outcome of community discussions and decision-making. The response to addressing these forms of power lies in balancing the scale of power with local knowledge and community-based work.

Our partners have acknowledged that these instruments of power are a reality in their work, and highlighted how local knowledge plays a crucial role. In Nairobi, the Kilimanjaro Initiative, which works with youth in Kibera slum, knew that in order to broach the subject of climate adaptation and water governance it would need to do so through a medium which was comfortable to the community members it works with -- in this case, football. The use of sports as a focal point led to community-based efforts to manage flooding of a local football pitch in anticipation of heavy rains and swelling of a nearby river. To the youth, the football pitch was an important community resource and a safe place of which they were proud. This nuanced understanding of how local youth perceive and care about

their surroundings acted as a gateway to address other climate-related impacts and water issues in the community.

In South Africa, Umphilo waManzi recognized that local communities could help create a history of how water resources have changed in recent years by drawing on the knowledge of residents. They realized they could also create timelines of significant storms or droughts and how local communities adapted in response. This information could be paired with local climate modeling and other research studies to create a balanced knowledge of local climate impacts, from the perspective of local residents. Nakashima et al (2012) argue that "Community-based and local knowledge may offer valuable insights into environmental change due to climate change, and complement broader-scale scientific research with local precision and nuance."

Local governments are at the forefront of addressing the challenge of climate change and urbanization (LOGOTRI, 2011). However, in some cities in Sub-Saharan Africa and elsewhere, the priorities and resources of local governments are stretched in addressing service delivery, housing, public health, poverty alleviation, and other pressing urban challenges. In cities where local governments are unable to respond with policies and strategies for climate change adaptation, other stakeholders can play a significant role in helping local governments develop inclusive solutions (LOGOTRI, 2011). Civil society civil is situated to play this important role. In most cases, this means working within communities to educate children, youth, and adults about climate change impacts and governance, in order to create more informed citizens and as a result, more resilient communities. Civil

society groups can help build a base of knowledge and information that can be used in collaboration with governments, researchers and international partners to build responses for climate adaptation and water governance.

In climate justice and water governance work at the community level, participants, organizers, and others involved should create opportunities to reflect on issues of power in their planning and strategizing. Examining local knowledge and experience is also important. Nakashima et al (2012) argue that "Resilience in the face of change is rooted in indigenous knowledge and know-how, diversified resources and livelihoods, social institutions and networks, and cultural values and attitudes." The application of local knowledge can strengthen responses to climatic changes and build resilience across communities, especially when these community-based responses from the neighbourhood level are shared across the cities involved.