

# Ethical issues arising in research into health and climate change

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## An impact evaluation of climate adaptation actions on nutritional and psychosocial health in rural mid-Zambezi Valley: review and discussion of ethical issues arising

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### Brief description of context

This presentation is based on a recent 3-year Wellcome Trust funded project (carried out from 1 October 2019 to 30 October 2022) entitled '*Climate adaptation and sustainable rural health outcomes in Southern Africa*'. The project was not directly focused on ethical issues; however, it is being used in this discussion as a case study to reflect on and draw conclusions about ethical issues arising from climate change and health research. The project's main aim was to evaluate the positive and negative nutritional and psychosocial health outcomes of 3 major climate change adaptation actions in the mid-Zambezi Valley (at the confluence of the Zimbabwe-Zambia-Mozambique borders) – an area considered one of the climate change hotspots in Southern Africa. The adaptation actions in focus were: a) shifting from predominantly maize farming in main dryland fields to drought-tolerant sorghum production due to decreasing rainfalls and increasing droughts over the years, b) increased reliance on indigenous knowledge vis-à-vis consumption of wild fruits (during crop failure due to increasing droughts and drought cycles) in the absence of meaningful alternative social assistance measures and c) increased reliance on indigenous knowledge with respect to using unique meteorological, insect and atmospheric indicators to predict increasingly erratic rainfall patterns and droughts in the context of challenges with (trusting) scientific predictions in the area. 3 key ethical issues which arose during the conceptualization and implementation of this study will be discussed. These ethical issues were identified, firstly, during the research ethics clearance processes for the project and, secondly, in ongoing project team reflections during project implementation. The first issue relates to questions of how and why research into health and climate change should be participative, given that this was an impact evaluation study which, beyond merely evaluating the impact of selected adaptation actions, sought to come up with meaningful recommendations towards dealing with challenges associated with the evaluated actions. The second issue relates to questions on how and why we should ensure equality of respect for all disciplinary and methodological approaches involved in research in this field in the context of the project being implemented by researchers and practitioners from multiple disciplines. The last issue relates to questions around what obligations researchers have to research participants exposed to dangerous climate risks. This was in the context of the case study site being located at the frontier of and exposed to serious effects of frequent droughts and increasing climate change-related drought cycles.

### Discussion of ethical issues

#### Issue 1 – Justice and fairness in participatory research: how and why research into health and climate change should be participatory.

From project conceptualization to implementation, a key ethical issue which the project placed at the forefront was making sure that the selection of climate adaptation actions whose health outcomes were to be evaluated was done with the express participation of and in consultation with the affected communities, in line with justice and fairness imperatives in research. These considerations are particularly grounded in ethical considerations of epistemic justice – particularly concerns around hermeneutical justice. Hermeneutical justice focuses on the systemic barriers that prevent certain groups from contributing to the collective understanding of social issues. In the

context of climate change and health research, hermeneutic justice becomes crucial as it allows the dismantling of knowledge hierarchies, allowing local communities to articulate their unique experiences, challenges and needs emanating from climate impacts. Hermeneutical injustice arises when individuals lack the interpretive platforms necessary to articulate their experiences due to historical exclusion from knowledge-making processes. In research, addressing this means creating platforms and processes that allow for diverse ways of knowing and understanding human experiences, thereby enabling vulnerable communities and/or marginalized voices to shape narratives and findings. As research into climate change and health moves to the centre, this is becoming critical from a moral perspective since health challenges are inherently personal, hence creating participatory platforms for individuals and communities to share their knowledge and experiences becomes important in shaping narratives. In our case, once the research team had settled on the broad problem statement, we went into the targeted communities during the initial stages of the project to collectively identify the adaptation actions which were to be evaluated, define and refine the research questions, and to establish partnerships with key community stakeholders in preparation for project implementation. We also made sure that our methodological techniques were participatory to allow for incorporation of communities' local knowledge during the evaluation process. Hence, among other methods, we utilized participatory workshops and interactive focus group discussions to allow for extensive participatory processes.

### **Issue 2 – Ethical issues from interdisciplinary research.**

Given the scale and urgency of the impacts of climate change on health, including the limited resources to address them, it is critical, from an ethics perspective, that research in this field involves a wide range of views, approaches and perspectives from different fields so that a) the right research questions are prioritised in engaging communities, and that b) researchers will be able to fulfil an urgent moral imperative to translate research findings in climate change and health into effective action towards meaningfully addressing the needs and interests of the most vulnerable. Impactful and transformative results are obtained by incorporating conceptual and methodological strategies from a variety of research disciplines hence, from that angle, involving multiple disciplines in research on climate and health becomes an ethical imperative. To fulfil these ethical imperatives therefore, our project team was multidisciplinary and comprised of researchers and practitioners with backgrounds and research interests in climate change adaptation, mental health, gender, health economics, nutritional health, agricultural economics, food science and development policy. It is, however, important to note that there are also ethical dynamics which arose within the team because of our multidisciplinary outlook, which we then sought to address as we proceeded to implement the project. These dynamics mainly had to do with the issue of equality of respect for all disciplinary approaches involved and the initial dominance of colleagues from health sciences over others during the research process, as well as the suppression of some research questions as we shaped the research agenda together with communities. To address this challenge and to ensure that contributions from this diverse team and all stakeholders were adequately taken on board, we created 3 work packages via which colleagues from different disciplines worked: the adaptation work package, nutritional health work package, and psychosocial health work package. The work package approach assisted in drawing out the best from team members in different disciplines in terms of unique perspectives, methodologies and analysis of findings. From an ethical standpoint, fostering equality of respect among disciplines aligns with principles of fairness, justice, and inclusivity. Failure to address disparities in respect among disciplines can have far-reaching consequences for the integrity of the research process as a whole. It risks perpetuating biases that favour certain methodologies or epistemologies over others, which can skew and distort research outcomes.

### **Issue 3 – Obligation researchers have to research participants exposed to dangerous climate risks.**

This issue is steeped in the ethical research concern around researchers ensuring, as far as reasonably possible, the physical and mental wellbeing of research participants. It also raises critical questions around undertaking research in instances where at-risk participants will not be directly benefitting, materially or otherwise. All these are traditional research ethics obligations;

however, the scale and urgency of these issues increase in the context of climate change given the serious health and livelihoods effects emanating due to climate impacts. Research involving participants at some degree of climate risk raises important ethical questions about obligations to mitigate or respond to that risk. As noted earlier, our case study was in an area considered one of the climate change hotspots in Southern Africa - highly exposed to dangerous climate risks. Communities in that area are at the frontier of and exposed to the serious effects of frequent droughts and increasing climate change-related drought cycles. We were thus aware that the nature of our study obliged us to be alert to specific critical ethical issues (particularly related to the mental wellbeing of our research participants) especially in terms of: a) managing expectations and transparency and communication around honestly informing participants that our project did not involve providing food aid and/or material support/benefits, and b) provision of post-research support around availing psychosocial health support for research participants traumatically affected by our project. We were aware that there was a likelihood that some of our questions and discussions could trigger traumatic memories of unpleasant past experiences and emotional trauma related to the effects of drought experiences. We therefore roped in Zimbabwe's Mashonaland Central province's mental health office to assist with the provision of counselling support services for participants who required these.

### **Conclusions and recommendations**

To improve the ethics of research into health and climate change, two main recommendations emerge from our study. Firstly, there should be clear guidelines and deeper reflections (beyond the guidelines) on what ethical questions and dilemmas are anticipated and how a research team anticipates to address the issues. Key to this would be ongoing project team reflections on the ethics implications of project approaches and activities during implementation as well as subjecting the ethics considerations to a rigorous ethics review by reputable research ethics committee(s) (RECs). In our case, the ethics review was conducted by two reputable RECs which thoroughly interrogated and recommended key ethical considerations, emphasised more acutely because the research was about health and climate change, among which were: i) the addition of key health research experts into the research team (i.e. a mental health nurse and a health economist) who had been initially overlooked – to strengthen the team's health components towards enabling the tackling of priority issues on climate change and health involved and ii) ensuring that feedback of research findings should be made (to) and accessible to different scientific and non-scientific stakeholders to ensure transparency and accountability vis-à-vis epistemic justice concerns.

The second recommendation is that research teams exploring climate and health issues should be as multidisciplinary as possible towards impactful and transformative results. Our project produced findings which resonated with and were embraced by different scientific and non-scientific stakeholders; one of the main reasons being that the project team comprised of researchers and practitioners with expertise and interests in different fields which the project was focused on: climate change adaptation, mental health, nutritional health, development policy etc.

### **References**

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