



ZAMBEZI ECOHEALTH PARTNERSHIP (ZEP) 2021 ANNUAL REPORT



Canadian Association
for Global Health
Association canadienne
pour la santé mondiale



INTRODUCTION

Although we were hoping for some different experiences this year (2021), compared to last year, we again had a “COVID year” with all its features of unpredictability. Despite this, ZEP carried on. In this annual report, although a bit briefer than usual, we summarize some highlights, achievements and challenges.

This report is being completed in June 2022. I apologize for the delay, but the ZEP team has been very busy preparing new project proposals. Thanks to those who contributed to the report, particularly those who helped with the “ZEP Dialogue Project” (described later in this report).

Vic Neufeld, ZEP Coordinator and Editor.

HIGHLIGHTS

Here are a few highlights of the year.

A new project grant:

Building on the ZEP partnership, a major proposal was funded by the Canadian Institutes of Health Research (CIHR), led by Craig Janes and a team comprised of Canadian, Zambian and International partners. The project title is: ***“The Impact of flooding on the accessibility and utilization of health services in Western Province, Zambia”***. This “Access project” (as it is sometimes called) fills an important gap, in that there is relatively little research on the impact of flooding on access to health services, and the WHO has advised that identifying and mitigating the impacts of climate-related hazards is essential to building resilient health systems.

The study questions of the Access project are:

1. How does the timing and extent of flooding affect access to health facilities by seasons and across the study period?
2. How do climate-related barriers to access affect the utilization of health services for high priority health conditions/concerns as specified by Provincial health leaders and community stakeholders?
3. Do identified barriers to access reveal social economic, and gender-based inequities in the utilization of high priority health services?
4. Can the resulting geospatial models of access and utilization specific to the study period be used to develop scenario-based tools that could be incorporated into health systems planning a Provincial and National levels?

An important activity of the ZEP partnership is the “FLOODMAL” project led by co-PI Chris Thomas, and which is funded by the UK-NERC. The project has developed and validated dynamic geospatial and hydrologic methods to map and predict floods throughout the study area. The investigators have considerable expertise in environmental risk measurement, health systems research, community-based research methods, and use of health information systems in Zambia. The Access project builds on and aims to use the predictive capabilities provided by FLOODMAL to strengthen health access by more effective resource mobilization and allocation in the context of flooding.

The key expected outcomes of this access project include:

- providing high quality evidence of the impact of flooding on the accessibility and use of priority health services in a low-income setting;
- making a methodological contribution by using national health information system data and community knowledge in impact evaluation studies;
- contributing to the development of tools that can be used by health system managers in countries and regions at risk of climate-related shocks.

Formal registration of ZEP:

Under the guidance of ZEP steering committee member, Mukelabai Ndiyoi, in May 2020 ZEP was registered as a company under the “Patents and Companies Registration Agency” (PACRA). This status facilitates activities such as managing local expenses and facilitating visa applications. We pay a modest annual fee (300 Kw) to the Ministry of Finance.

Academic achievements:

One of our ZEP colleagues, Lesley Johnston has completed her PhD training and qualifications at the University of Waterloo. Her research topic was *Integrating Gender, Health, Mining and Governance in Zambia and Canada*. Two other colleagues, Mwimanenwa Njungu and Christine Edet are nearing completion, having completed full first drafts of their theses.

ZEP website launched:

Another highlight of the year was the launch of the ZEP website: <https://zambezi-ecohealth.org>. Our colleague Christine Edet (PhD candidate) kindly agreed to serve as the website manager. We

encourage all ZEP members to consider contributing stories, news updates, and information items (e.g. photographs). Please send your ideas to Christine at: christine.edet@uwaterloo.ca.

Chris Thomas's move to the University of Lincoln:

After a number of years as the pro-Vice Chancellor for Research and Innovation at the University of Aberystwyth in Wales, Chris has moved to the University of Lincoln (UK) where he is the Global Professor in Water and Planetary Health. He and his colleague Professor Mark Macklin are the co-directors of the Lincoln Centre for Water and Planetary Health (LCWPH). Here is the website: <https://www.lincoln.ac.uk/geography/research/lincolncentreforwaterandplanetaryhealth/> Chris assures us that his enthusiasm for and involvement in ZEP will continue unabated.

ACHIEVEMENTS

Network maintenance:

Perhaps the most important achievement of the year was maintaining and nurturing an ongoing dynamic ZEP network, of course with much more use of on-line communication tools. We see the ZEP website as an increasingly important tool for us.

Knowledge production and implementation:

The various "cluster" teams have been busy preparing and submitting publications related to their specific projects. At the end of the year, something like eight manuscripts were in the preparation stage and two had been submitted for publication. Looking ahead, these publications will represent a new and strong information resource for the next stage of ZEP activity.

With the ZEP website now in place, we will plan to provide links to these various publications as they become available. The "FLOODMAL" group has been particularly active. One of its publications can be accessed through the website. The lead author is M.W. Smith, and the title is: *Incorporating hydrology into climate suitable models, changes, projections of malaria transmission in Africa*.

Capacity strengthening:

In the 2020 ZEP Annual Report, we included several "personal statements" by ZEP members who were engaged in PhD (doctoral) studies at the University of Waterloo. Included were statements from Douglas Singini, Christine Edet, Mwimanenwa Njungu and Lesley Johnston.

This year we also had the pleasure of welcoming a post-doctoral fellow, **Inonge Milupi**, to Canada for a 6-month post-doctoral fellowship. Most of the time was spent at the University of Waterloo, with Craig Janes and the local "Zambia team". There also were one-week visits to the Victoria in August (with Vic and others at the University of Victoria), and to Saskatoon in October, with Corinne Schuster-Wallace and others at the University of Saskatchewan. During her time with Corinne, Inonge focused her research work on an analysis of the water supply, sanitation and health problems of rural communities in the Barotse floodplains in Zambia. Included was special attention to the "skills" of analyzing the scientific literature, identifying suitable journals for publication and grant proposal writing. Inonge also attended the Canadian Conference on Global Health that took place in Ottawa.

CHALLENGES

The year 2021 is also the third year of ZEP's three-year strategic plan (from 2019 to 2021). In the first months of this year, questions were raised for the ZEP community to consider: *Should ZEP continue? If yes, what has changed from when ZEP first was launched (in 2017 and 2018)?* The unanimous answer to the first question was YES, *ZEP must continue.*

This led to the creation of a project: *ZEP Dialogue Project: Stocktaking and Looking Ahead.* The project began with assembling a project team. Its first activity was to invite ZEP members to contribute to a survey and respond to three questions:

- *What have been our achievements over the past three years, and what are the shortcomings that require more attention?*
- *How has the context changed over last three years resulting in a new situation, and what are the challenges and opportunities ahead?*
- *What do you see as your own personal engagements in the ZEP adventure in the next year and beyond?*

Listed below are some key findings from the analysis of the survey submissions:

- an “overarching achievement” of ZEP to date has been the integrated dialogue between ZEP researchers and key policy makers.
- an on-going challenge during 2021 was the need to adjust plans to the realities of the COVID pandemic. This has put restrictions on overseas travel and accelerated the use of on-line communication.
- partnership strengthening continues to be a key challenge, in part because of limits on “face-to-face” communication.
- with more publications becoming available (as described above) there is a need for a more specific and comprehensive dissemination strategy.
- student participation is a growing feature, in Zambia mainly through UBL and UNZA, but also in partner institutions in Canada and the UK.

ZEP cluster teams were encouraged to conduct their own “cluster specific” reviews, and if possible, to draft concept papers summarizing challenges and opportunities. This is an ongoing activity.

Looking ahead to “ZEP 2”, it is becoming increasingly apparent that climate change is a transdisciplinary and therefore a “cross-cluster” issue. With this in mind the ZEP secretariat prepared a dossier identifying both country-wide and local readings about climate change and environmental degradation.