

# Community Brief: Climate change and health for informal workers and residents in Harare and Masvingo



Training and Research Support Centre,  
Zimbabwe Congress of Trade Unions,  
Zimbabwe Chamber of Informal Economy Associations<sup>1</sup>  
March 2021



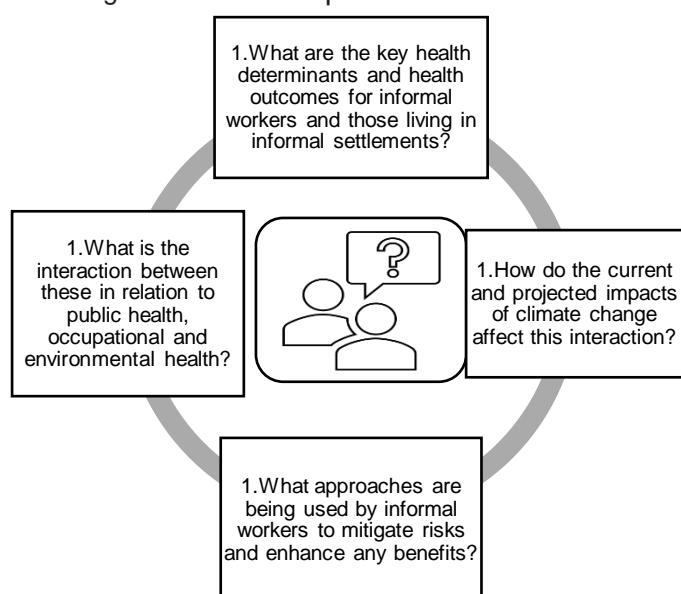
## Climate change is real and having an impact

Climate change impacts in Zimbabwe are now becoming increasingly evident, with irregular rainfall, high temperatures and more frequent and damaging storms. Cyclone Idai is still fresh in people's minds.

The impacts of climate change are likely to be more severe for those with poor living and working conditions, low and insecure incomes and in already degraded and overcrowded urban and rural environments.

## Investigating its impact on health in the informal sector

Figure 1. Research questions



The Training and Research Support Centre (TARSC), the Zimbabwe Congress of Trade Unions (ZCTU) and the Zimbabwe Chamber of Informal Economy Associations (ZCIEA) implemented the project "*From surviving to thriving: Learning from responses to the health effects of climate change in informal workers and informal settlements of Zimbabwe*", to better understand the way climate change is affecting the health of people living in informal settlements and of informal sector workers in Zimbabwe. The questions asked are shown in *Figure 1*. The information was gathered using surveys and focus group discussions with informal residents and workers in

selected sites of Harare and Masvingo and key informant interviews with representatives of local authorities and agencies. More information on the methods can be found in the full report noted in the footnote.

The organisations seek to use the findings to inform dialogue at local and national levels on how to support positive responses underway and to address problems found.

Produced by A Kadungure, R Loewenson and R Machedemze, Training and Research Support Centre; W Malaya, Zimbabwe Chamber of Informal Economy Associations; N Banda, Zimbabwe Congress of Trade Unions. Thanks to the International Institute of Environment and Development (IIED) and V Kernohan's copy edit inputs to the report used in the brief: *TARSC, ZCTU, ZCIEA (2020) Propelling virtuous and breaking vicious cycles: Responding to health and climate risks for informal residents and workers in two areas of Zimbabwe, Report of evidence from a mixed methods study, TARSC, Zimbabwe*. We further acknowledge, with thanks, financial support from the National Institute for Health Research (NIHR, UK). The views expressed in this publication are those of the authors and not necessarily those of the NIHR, IIED or the Department of Health and Social Care, UK.

## The findings

This brief summarises the major findings for community report back and discussion. You can read more detailed information in the full report (See the footnote on page 1).

### Conditions affecting the health of informal workers and residents

People living in informal settlements and working in the informal sector in the study sites faced many environmental challenges in accessing decent housing, safe drinking water, safe sanitation and hygiene; in their exposure to soil, water and air pollution, chemicals and wastes, and gaps in health and waste management services.



**Water and sanitation:** While there are piped water systems, the water supplies from them were found to be irregular. Infrastructures have been affected by vandalism and old pipes have leakages, seepage and rust that affects water quality. Some boreholes and wells were sited close to dumps or sewage sources affecting the quality of water.

As a result of these challenges household members, mainly women and children, had to spend time collecting water. This was hard for people with disabilities and affected children's learning time in school.

In relation to *sanitation*, formal settlements largely used flush toilets but poor water availability affected the functioning of these toilets. Informal settlements mainly used ventilated improved pit latrines, but these fill more rapidly with intense rainfall and become more foul smelling when temperatures are high.



**Solid waste management** in formal settlements is serviced by local authorities, but people reported the services to sometimes be erratic and had challenges getting information on when refuse would be collected. In the informal settlement the local authority did not provide refuse collection services. Waste was thus sometimes disposed unsafely through burning and dumping in open spaces.



**Energy for lighting and cooking** is provided by the national electricity supplier in formal settlements, but almost all residents in the informal settlement were not connected to the national electricity grid. However even for households with electricity, load shedding meant that many were using less health and environmentally-friendly alternatives for cooking such as firewood, or burning old shoes, clothes and tyres. There was some use of solar energy for lighting but many found this too costly. Not having reliable energy was reported to affect many aspects of people's lives, including their diets, food storage, street lighting and safety, and learning and work opportunities for children and adults.



**Housing** in formal settlements was generally reported to be safe and ventilated. In the informal settlement, structures built from inferior building materials and with poor ventilation were noted to pose a risk to health and of injury, especially during strong winds and flooding, as it increasingly happening with climate change.



**Working conditions** interact with these living conditions. Waste pickers and urban farmers in both Harare and Masvingo reported that their poor legal status is leading to poor working conditions and that they cannot afford protective clothing. They reported having inadequate access to water and sanitation, to work long hours, travel long distances for work and to be exposed to chemicals, heat, air and water pollution. Waste pickers reported injuries from sharp objects in dump sites.

## Health problems of informal workers and residents

The informal workers involved in waste collection and urban agriculture told us that they had had episodes of diarrhoea, prolonged coughing, skin rashes, headaches, asthma and other respiratory problems in the past 12 months. We were not able to do direct health checks but appreciate that this reported data may not raise some chronic conditions like kidney disease due to dehydration or liver disease due to chemicals.

The conditions described earlier could cause these health problems. For example, prolonged exposure to fumes can lead to respiratory problems and exposure to chemicals in waste-picking without gloves can lead to skin rashes.

Living and working conditions can add to each other in making health problems worse. Dust from gravel roads in informal settlements, from dump sites and urban air pollution from traffic, the smoke and chemicals from fuels burned for cooking, described earlier, and from local home industries can combine to keep informal workers continuously exposed to health hazards at work and at home.

*“Our air is not clean. It has a lot of dust from roads, from the nearby cement factory and smoke from use of firewood, tyres and shoes for cooking. We have informal generator repair shops in residential areas, and the smoke from them is causing the air to be dirty. We used to have open spaces long ago to clean the air, but these spaces are no longer there.”* Urban resident Mabvuku-Tafara

Waste pickers had higher levels of occupational injuries from vehicle accidents, sharp objects and fires in dump sites and also reported higher levels of musculo-skeletal problems and rashes or breathing problems related to chemical risks than other workers. Urban farmers reported injury from stray wild animals and from snake bites. Female urban farmers who have to walk long distances to reach fields reported anxiety and sexual abuse.

Working in the sun, with poor access to water may lead to dehydration and headaches reported by solid waste collectors and urban farmers.

*We know we need to drink more water when it is very hot, but safe water is not easy to get so we end up drinking less and just stay indoors.* Urban farmer, Mabvuku-Tafara.

Many of these health hazards are not monitored or controlled. No site reported testing of air quality; communities said they did not get information on any water quality testing and cost barriers were said to stop people taking chronic problems and injuries to health services and informal workers are not compensated for lost work time for these injuries.

**Climate factors** like extremes of heat and cold, flooding and drought and water stress can make these conditions worse.

Raised temperatures make it even more difficult for those working in the sun to remain hydrated. Water stress and contamination due to drought or flooding make it even more difficult to access clean water at work or in informal settlements, raising the risk of dehydration and diarrhoea. Water stress and high temperatures were perceived to become more severe in the future due to climate change, increasing the risk of these health problems. Raised temperatures were also seen to reduce the shelf-life of food, raising the risk of diarrhoeal disease, to make working and living conditions even more uncomfortable and to lead to longer and wider exposure to pests carrying diseases like malaria.

## Responding to health risks: the assets in communities



Figure 2: Upcycled plastic waste. Source: ZCTU, ZCIEA, Masvingo, 2019.

Local communities and organisations have assets and capacities and are already taking actions to address the challenges found. We were thus interested to identify these to build on what is already underway.

There are high levels of literacy and education that help in information sharing and skills building. Community networks help in negotiating better prices for solid waste pickers and sharing tools and resources to repair roads and support household level water purification.

The communities noted that these assets could be supported by diversifying crops and better linking urban agriculture to markets. Waste pickers proposed relationship building with buyers and investments for them to produce goods with waste, such as the goods already being produced with household waste shown in Figure 2. Households could also get better information on waste management and on health literacy to support their own practices at work and at home, including through schools.

Figure 3. Household risk mitigation strategies

<i>Risks to health and environment at work</i> - Risk avoidance eg avoid chemical containers where they are not labelled	<i>Water supplies</i> -improving the internal linings of septic tanks, water purification measures (boiling, tablets), sinking wells, water conservation.
<i>Drought</i> - water conservation techniques, organic manure, switching to early-maturing crops, ground water for irrigation	<i>Ergonomic hazards</i> - use of machinery (eg push carts), hiring vehicles to carry heavy plastic waste loads (but with cost barriers)

However informal workers and residents also called for local authorities to coordinate measures to support these household actions, such as drilling boreholes, rainwater harvesting, widening use of water conservation technologies and monitoring and reporting on water and air quality.

Public clinics in communities were seen as important assets for health but were reported to have less available services for the chronic conditions noted to affect informal workers and residents and to raise fees that people found difficult to afford.

Generally there was a view that public health services need to be better centrally funded, including to incentivise health workers, improve service quality and availability of medicines.

Different government and non-government organisations are providing materials, training and awareness programmes, and reviewing and enforcing laws related to the hazards faced by informal workers and residents. They are also helping to strengthen networks and relationships within the community. However, these efforts were not felt to be adequate given the scale of challenges and to need to be better coordinated and supported if they were to reach all who need them in a sustainable way.



## Recommendations for improved and sustainable wellbeing

The findings and the views gathered, including from key informants suggest a number of ways of improving health and managing the current and future impacts of climate change in these informal residents and workers. We raise them here for discussion:

1. **Participatory, longer term planning:** Many of the challenges found come from a long history of neglect or marginalisation of informal workers and residents and from not fully engaging with their talents in a more organised, mutually respectful manner. Short term exploitation of resources such as wetlands is undermining future water, food, economic security due to the impacts of climate change. It is thus recommended that there be longer term planning and budgeting that include inputs from and more effectively communicate with informal workers and residents, with better co-ordination and common messaging across the different agencies involved. Central and local government, through the office of the district administrator, were seen as strategically positioned to enhance co-ordination.
2. **Improve integration of informal workers and residents in urban plans and investments.** A number of measures were suggested to improve this:
  - a. Registration of plastic waste recycling and recyclers and urban farmers and regularising shared work spaces, conditions and standards.
  - b. Regularising land tenure and housing security for informal residents
  - c. Provisions and subsidies for renewable energy infrastructures and appliances in informal workplaces and settlements.
  - d. Providing recycled water using 'red taps' for non-drinking water purposes in urban areas including urban farming.
  - e. Regular monitoring of air and water quality and communication of findings to tackle problem areas, including through controls on pollution from traffic, industries and energy sources.

*Registration of all waste pickers would be better to support them and their access to dump sites to improve their safety. Key informant, Harare.*

3. **Better integrate informal producers and workers into central and local economic and enterprise planning.** The national economy needs to be revitalised in a manner that provides sustainable job and enterprise creation, especially for young people, and in a way that promotes innovation and adaptation around sustainable environments and climate change. Some specific options raised on this include:
  - a. Strengthened capacity, technology, internet and investment support for informal workers to move from insecure jobs to value added enterprise.
  - b. Education curricula to include skills for green/sustainable production.
  - c. Investing in infrastructures and stimulating technology innovations and their marketing for improved rainwater harvesting and irrigation.
  - d. Improving supply of, access to and stimulating technology innovation on affordable energy/electricity, given the range of social, economic and health impacts this has. This includes public infrastructures such as street lighting to workplace and household energy needs for lighting, machinery and cooking. It implies investment in quick wins" such as solar solutions for community boreholes, street lighting or clean energy for cooking and long-term investment in renewable energy such as biogas in local authority areas that also support waste management.

*We need capacity and education on how to start our own recycling businesses, instead of selling our plastic as it is. We are being exploited. No buying prices are gazetted, and buyers and middleman are the ones who benefit from our sweat. We need better sharing of wealth from the plastic business.* Plastic waste collector, Hopley

#### **4. Tackle the key living conditions that are harming health AND environments:**

The research pointed to some key areas that could generate both improved living and working conditions and improved environments and adaptation to climate change. They include:

- a. Moving from ad hoc individual approaches to wells and boreholes that are depleting underground water to investing in renewable water sources and rainwater conservation; improved water distribution infrastructure; red tap use of recycled water for non-potable water and community and local authority management to prevent thefts and vandalism.
- b. Widening existing health literacy and health promotion programmes to include climate and sustainable environment options.
- c. Improving renewable energy infrastructure for public lighting and services and expanding affordable access to clean fuels for domestic use.
- d. Promoting reforestation of areas degraded by firewood use including fruit tree planting.
- e. Improving communication on and co-ordination of local authority and household strategies for segregation, collection and management of solid waste and recycling. In the medium to long term goal, local authorities need to promote waste segregation at source to reduce the waste that reaches dumpsites and at the same time improve the work and safety of waste pickers.
- f. Recognising and stimulating environmentally sound forms of urban agriculture, food marketing, preservation and storage.
- g. Investing in public sector primary care services and health worker skills so that they provide accessible, affordable quality prevention and care to manage the health of informal workers and residents, including chronic conditions and the surveillance and medicines for this.

*Solid waste in urban areas could be managed better, and it could be an area of proving 'win win' between communities, local authorities, environments, economy and climate change goals.* Key informant, Harare.

#### **5. Setting principles to guide policy and practice on emerging issues:**

While these specific actions have been recommended, the informal workers and residents called also for general principles to guide actions and future issues as they emerge, including:

- a. *equity* in access to information, investment, health and other services;
- b. *appropriate sequencing* and prioritising of measures that have wider positive population/ sectoral impacts;
- c. employing '*a whole of society*' approach and *cross sectoral collaboration*;
- d. protecting rights and ensuring capacities for duties, and ensuring *legal recognition* for all residents including those in informal settlements.

#### **We are sharing this brief to hear your feedback.**

- Are the findings valid and relevant? Do they raise the key issues for the health of this group of informal workers and residents?
- Do you agree with the recommendations? What can you do now to implement them? What else would you propose?