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Environmental health justice across the globe

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Disenfranchised and disadvantaged communities face challenges across the globe. These communities are more likely to be poor and minority, disproportionately exposed to harmful environmental pollutants and require equal access to healthcare. The environmental justice (EJ) movement aims to improve and maintain a clean and healthy environment by ensuring healthy air, water and soil. Two unlikely areas for comparison are Louisville, Kentucky, in North America and Blantyre, Malawi, in Africa, two worlds apart with different, yet similar, environmental issues.

The EJ movement was primarily initiated by another North American community in Warren County, North Carolina. A small, predominately poor, rural community of African-American residents was chosen to locate a hazardous waste landfill, accepting Polychlorinated Biphenyl (PCB)-contaminated soil. The residents protested and ignited the EJ movement in the USA in the 1980s. Executive Order 12898, issued by President Bill Clinton in 1994, provided a formalised platform providing credence to the EJ movement.¹

Louisville is a typical mid-western city with a population of approximately 780 000 and a Black and African-American population of 23%.² The EJ movement has been robust, because west Louisville residents have been exposed to air pollution and odours since the 1950s; the established state and national regulations have not ensured a healthy environment for all. Morris Forman, the largest wastewater treatment plant in the state and an 11 chemical industry complex called Rubbertown are within the west Louisville area. Despite many ownership changes, the chemical complex products have remained over many years from the processing for paints and coatings to industrial printing products, polypropylene catalysts, synthetic rubber and plastic products. Based on community concerns, an EJ action agenda was developed from meetings with 12 neighbourhoods, the University of Louisville, Louisville Health Department and the West Jefferson County Community Task Force, who presented it to the local government in 1996. This collaboration brought in the US Environmental Protection Agency, Kentucky's Division for Air Quality and the Louisville Air Pollution Control District for air monitoring. The undesirable findings resulted in a new local regulation programme called the Strategic Toxic Air Regulation (STAR), making local regulations stricter than those of the US Environmental Protection Agency and Kentucky's Division for Air Quality.

More than 8000 miles away in the sub-Saharan country of Malawi, an EJ movement has not yet been led by the 800 000 urban residents in the city of Blantyre. In Blantyre, only 37% of households have piped drinking water, and most still use outhouses for toileting.³ The US Office of EJ, falling under the US Environmental Protection Agency, was formed in 1992; however, Malawi has no office or similar supporting environmental-justice policies or acts. For example, analysis of quality on urban piped water in Malawi has focused on faecal contamination rather than other contaminants of emerging concern that high-income countries are now focusing on, despite the presence of other national regulatory standards. The environmental health agenda in low- to middle-income countries is often driven by donor demands or socially conscious manufacturing and laboratory access, rather than community concerns and recommendations. This results in the polluted environment not being well defined for health. In Malawi, EJ is not an issue because communities do not know what EJ is, not because there are no environmental pollutant problems.

Learning from the response to COVID-19, we have the opportunity to innovatively advocate for environmental health justice for low-income communities and communities of colour. Individuals who have been historically exposed to elevated levels of air pollution have higher COVID-19-related mortality rates.⁴ Although it is an under-researched topic, the same likely applies to low-income-country communities. Louisville and Blantyre both have a need for environmental monitoring research combined with an understanding of the impacts of environmental pollution on health, unifying community task forces, academics and public policy partners. Using the STAR programme, Louisville can serve as a promising model that can be applied to many low-income countries so that EJ advocacy can generate a positive response that promotes a clean and healthy environment.

We come at this from two different angles of professional training and lived experience, as experts and people in the community. Engaging in community conversations with toxicologists, engineers and epidemiologists about improving healthful environments will improve the health of its residents. Post-COVID-19, low-income communities and communities of colour need to continue to follow this high public health focus to innovatively advocate for EJ: improve rapid analysis kits for environmental testing by the community, use existing infrastructure for wastewater-based epidemiology to track community health and find local solutions such as incorporating green infrastructure.



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REFERENCES

- 1 Office of Legacy Management. Environmental justice history. Available: <https://www.energy.gov/lm/services/environmental-justice/environmental-justice-history> [Accessed 27 Sept 2022].
- 2 United States Census. Jefferson County, Kentucky. Population estimates, (V2021), 2021. Available: <https://www.census.gov/quickfacts/fact/table/jeffersoncountykentucky/POP010220> [Accessed 27 Sept 2022].
- 3 Malawi National Statistical Office. 2018 Malawi population and housing census main report. Lilongwe; 2019.
- 4 Wu X, Nethery RC, Sabath MB, *et al.* Air pollution and COVID-19 mortality in the United States: strengths and limitations of an ecological regression analysis. *Sci Adv* 2020;6:eabd4049.