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Plastic Pollution Policy Country Profile: Malawi

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CONTENTS

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Key Takeaways*

- Solid waste generation in Malawi is expected to triple by 2050, with per capita generation increasing by 33% in the same period of time.
- This is due to projected population growth and increasing reliance on single-use plastics in formal and informal economic sectors.
- Only 42% of waste is collected properly, while 12% of waste is thrown onto roadsides, 9% into rivers, and 9% into dumpsters, meaning potential for leakage into the environment is high.
- Many households also practice waste burning and reuse.
- Since its passing in 2015, the implementation and enforcement of Malawi's plastic bag ban has been appealed by the Plastics Manufacturers Association of Malawi. As of 2021, the ban is in place though there is evidence of noncompliance.

* These are based on a review of literature published and policies enacted before December 2021

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INTRODUCTION

This document outlines: 1) the nature of the plastic pollution problem in Malawi, 2) available information about the national, subnational, and to a smaller extent, international policy landscape guiding government approaches to the plastic pollution problem in Malawi, and 3) what, if any, information exists about the effectiveness of these policy approaches. This document is written using a basic literature review process and with support from the Plastics Policy Inventory, as outlined in the Appendix (below), and is not exhaustive. It contains the most up-to-date information at time of publication, but this information may eventually be less relevant as the policy landscape continues to evolve. The authors were not able to get expert review for this case study, to ensure the information gathered aligns closely with what experts and practitioners are observing and experiencing on the ground. If conducting research on the plastic pollution crisis in Malawi, we recommend you use this document as one of many resources available to better understand the problem and its solutions

PLASTIC POLLUTION IN MALAWI

In Malawi, per capita waste generation is projected to increase by 33% by 2050, and total waste generation could *triple* by 2050 (Turpie et al. 2019). To be more specific, Lebreton and Andrady (2019) predicted that total municipal plastic waste production in Malawi will be 508,000 metric tons per year in 2060. Presently, however, approximately 280,000 tons of solid waste remains uncollected in urban areas each year (Turpie et al. 2019).

The four main cities in Malawi (Lilongwe, Blantyre, Zomba, and Mzuzu) have a combined population of around 1.5 million people and generate more than 1,000 tons in solid waste per day (Turpie et al. 2019). According to studies, the waste management system and public awareness are inadequate to cope with the amount of waste generated in Malawi (Turpie et al. 2019). These problems will only be exacerbated as Malawi's population grows, the country becomes more urbanized, and more people enter the middle-class as a result of economic development.

The nature of consumption in the country has been shifting to use more single-use and hard to recycle plastics. For example, the sale of consumer goods is shifting from street vendors and small business to supermarket chains and department stores, increasing the use of single-use plastics (SUPs) (Turpie et al. 2019). In addition to overall shift, informal traders (such as street vendors) are switching to thinner plastic bags, and beverage industries are switching from returnable glass bottles to plastic bottles—all of which are increasing Malawi's total waste generation (Turpie et al. 2019). Malawi also has increasing water quality concerns, and many residents are using plastic water bottles for clean water as a result (Turpie et al. 2019). Further, households in high income areas generate more than seven times the plastic waste of those in low-income areas (Turpie et al. 2019). In low-income areas, the waste generation rate is 0.20 kg per capita per day, however the waste generation rate in high income areas is 0.51 kg per capita per day (Turpie et al. 2019). However, it is worth noting that this is not necessarily the trend everywhere. For example, research in Kenya suggested the opposite, that households in lower income areas generate more waste than high income areas (Omondi and Asari 2021).

As household consumption of plastic increases, waste management and collection rates are stagnant and remain insufficient to address waste in Malawi (Kalina et al. 2021). Only 42% of waste is collected properly (and this is considered an overestimation) (Turpie et al. 2019). Approximately 12% of waste is thrown onto roadsides, 9% thrown into rivers, and 9% is thrown in dumpsters, meaning a lot of waste can enter the environment. (Kasinja and Tilley 2018). With no proper landfills, waste collected by cities is taken to open dumpsites (Kasinja and Tilley 2018).

Due to the overwhelming waste problem, private initiatives have begun to apply for licenses to operate as a private waste collection facility (Turpie et al. 2019). For example, more than 45 companies have applied for licenses (Turpie et al. 2019). These companies charge a weekly fee ranging from MWK50/kg to MWK300/kg of plastics ($0.061 USD/kg to $0.37 USD /kg of plastics) to households for daily or weekly collection and disposal (Turpie et al. 2019).

Likewise, some local nongovernmental organizations (NGOs) operate individual projects for waste collection in major cities such as Lilongwe and Blantyre (Barre 2014). For example, in 2010, various community-based organizations (CBOs), NGOs, private, and public sectors created a project, Waste for Wealth (W4W), where participating organizations made compost out of organic waste collected in the street by women (Barre 2014). It is important to note that this project is solely an example of private sectors engaging with waste collection practice: this targets *organic* waste and does not alleviate the plastics problem.

Though in urban areas a common practice has been to burn their waste or dump it in the streets, the most common waste management practice in households in Malawi is reuse (Barre 2014). Reuse practices in Malawian households are diverse: most waste items get reused multiple times before being discarded (Kalina et al. 2021). Research has shown that the overwhelming motivator for reusing items is economic, because it is cheaper to reuse a product than to buy a new one that does the same function (Kalina et al. 2021). In cities like Chembe, residents sometimes earn income from collecting, reselling, repurposing, and even creating crafts from reused products (Kalina et al. 2021). The items that are reused the most are broken water basins, cement bags, and used maize sacks (Kalina et al. 2021). For example, villagers will reuse items for different functions, depending on what is needed in the home: water basins to flowerpots, maize sacks to woven art, plastic drink bottles to store oil, or using mosquito nets to dry fish (Kalina et al. 2021). There is also a localized plastics recycling industry. In an interview with managers at local recycling companies Shore Rubber and Plastico Industry, managers stated that 40–60% of waste collected or bought is recycled to make new items (Barre 2014).

What Role do Informal Waste Pickers Play?

Another mechanism for waste control is Informal Waste Pickers (IWPs), who mostly collect plastics and other types of waste that have been disposed in urban areas IWPs are defined as "individuals, groups, or micro-enterprises that collect, sort, transform, or process recyclable materials that are not financed or recognized by solid waste authorities" On average, one IWP can recover up to 9 kg of plastic waste per day. Though extremely important in their role in waste collection and proper disposal, IWPs are usually subject to marginalization and rarely recognized for their contribution. This trend is common in many other countries in Sub-Saharan African and Asia. After interviewing 42 IWPs in Zingwanga, Kasinja and Tilley found that IWPs were selling the plastic materials they recovered for less than the mean price (184 Mk/kg) and that there was a disincentive against recovering dyed plastics since most industries do not buy them.

Source: Kasinja and Tilley 2018.

Malawi has a significant body of legislation dedicated to combatting the waste generation and inadequate infrastructure problem generally; however, despite many attempts, there is only one national policy and zero subnational policies targeting plastic pollution specifically. These policies call for improved waste management and recycling initiatives, but there are no current regulatory prohibitive or economic instruments being implemented such as bans or levies. The policies in place are more affirmative, such as planning to commit to developing a stronger waste management sector or recycling techniques. The Malawian government has been attempting to implement a stronger plastic bag ban, given the success of SUP-bans in neighboring countries such as Rwanda, however efforts have been consistently legally challenged by plastic manufacturers and eventually overturned (Bezerra et al. 2021). For example, Malawi's first attempt to implement policy to directly ban plastic bags was met with opposition from the Plastics Manufacturers Association of Malawi (PMAM) (Turpie et al. 2019). Between 1990 and 2015, Malawi imported one billion USD worth of plastic, furthering PMAM's argument that a plastic bag ban would have a drastic effect on Malawian economy (Babayemi et al. 2019). Despite legal battles, as of this writing, the ban has finally become active (Bezerra et al. 2021).

POLICIES TO ADDRESS PLASTIC POLLUTION

Environmental Management Act (1996)

The Environmental Management Act (EMA) of 1996 states that any land affected by waste disposal sites needs to be restored (EMA 1996). To handle waste properly, the Act states that any waste should be removed and disposed of properly, so as not to endanger the environment (EMA 1996). This act prohibits littering in public places and designates that the Minister of the Environmental Affairs Department oversees creating waste management standards and controlling the handling, storage, transportation, classification, importation, exportation, and destruction of waste (EMA 1996). This act also bans anyone from handling, transporting, or storing waste without a license. Anyone who does not dispose of waste that is in accordance with the act will be liable to a fine of 1,000,000 Malawian Kwacha ($2,582 USD) (EMA 1996).

Environmental Management (Waste Management and Sanitation) Regulations (2008)

The Environmental Management (Waste Management and Sanitation) Regulations expands on the Environmental Management Act and National Environment Policy of 2004 that states that every person has a right to a clean and healthy environment and has the duty to promote and maintain a clean environment (Turpie et al. 2019). The Regulations in 2008 specifically provide updated waste management and sanitation programs (Turpie et al. 2019), including listing plastics as a material that can be recycled and states that everyone has the duty to properly dispose of all litter (Environmental Management [Waste Management and Sanitation] Regulations 2008). The regulations require that anyone who owns a recycling facility to have a license granted by the Director of Environmental Affairs (Environmental Management [Waste Management and Sanitation] Regulations 2008).

Environmental Management (Plastics) Regulations (2015)

The Environmental Management (Plastics) Regulations bans the importation, manufacture, trade, and commercial distributions of plastic bags/sheets that are less than 60 micrometers in thickness (Environmental Management [Plastics] Regulations 2015). However, commonly used plastics are exempt from this ban such as plastics meant for food packaging, medicine or veterinary products, laundry dry cleaning bags, and plastics used for waste storage (Environmental Management [Plastic] Regulations 2015). Each bag will need to have printed on it the name of the manufacturer and the thickness of the bag (Environmental Management [Plastics] Regulations 2015).

In 2016, the Plastics Manufacturers Association of Malawi (PMAM) appealed to the High Court to restrain the government from implementing the ban and to review the ban (Turpie et al. 2019). PMAM was strongly against the ban because they considered it a threat to their industry, claiming it would lead to job loss (Turpie et al. 2019). According to PMAM, considering that Malawi is low-income country, development opportunities are highly valued, and to ban the production of thin plastics would be a direct hit on plastic manufacturing jobs (Turpie et al. 2019). Three years later, the case went to the Supreme Court, but the court dismissed the appeal to stop the ban on plastics. Therefore, Malawi's thin plastic bag ban is currently in place (Pensulo 2020). Evidence has shown that the government is committed to enforcing this ban. For example, in 2020, two companies (OG Plastics and City Plastics) were found still manufacturing plastic bags despite the ban and were forced to close (Pensulo 2020). At the same time, local environment groups are still calling for more enforcement on the ground because plastics are still being seen on the market (Pensulo 2020). As of 2021, the government has plans to review the regulations to make it a complete ban of single-use plastics (Princewill 2021).

POLICY EFFECTIVENESS

Though the government of Malawi has demonstrated a commitment to creating policy addressing plastic pollution more directly, our literature review found articles focusing on the development of the thin plastics ban and the conflict it created, with no detail on the effectiveness of any policy on reducing plastic pollution. Though reports suggest that the government of Malawi is starting to make a stronger effort to target plastic pollution specifically and eventually ban all plastic bags, our researchers were unable to find any new policies or ones being drafted as of August 2021. This makes it difficult to gauge the effectiveness of these Malawian policies and assess them accordingly.

CONCLUSION

Since its implementation, Malawi's only plastics specific legislation has been held up by the PMAM, demonstrating how effective industries can be in lobbying plastics policies in some places. With the expected increase in single-use plastic consumption and existing pathways for plastic waste to leak into the environment, the need for more comprehensive solid waste and plastic management remains high.

REFERENCES

Babayemi, J.O., I.C. Nnorom, O. Osibanjo, and R. Weber. 2019. "Ensuring Sustainability in Plastics Use in Africa: Consumption, Waste Generation, and Projections." *Environmental Sciences Europe* 31(1). https://doi.org/10.1186/s12302-019-0254-5.

Barre, J. 2014. Waste Market in Urban Malawi—A Way Out of Poverty? (Master's thesis). Uppsala, Sweden: SLU/Dept. of Urban and Rural Development.

Carlos Bezerra, J., T.R. Walker, C.A. Clayton, I. Adam. 2021. "Single-Use Plastic Bag Policies in the Southern African Development Community." *Environmental Challenges* 3. https://doi.org/10.1016/j.envc.2021.100029.

Environmental Affairs Department, Malawi Government. 2008. Environment Management (Waste Management and Sanitation) Regulations. http://www.ead.gov.mw/storage/app/media/Resources/Regulations/environment-waste-management-and-sanitation-regulations-2008.pdf.

Environmental Affairs Department, Malawi Government. 2015. Environment Management (Plastics) Regulations. https://cepa.rmportal.net/Library/inbox/environment-management-plastics-regulations-2015/view.

Kasinja, C., and E. Tilley. 2018. "Formalization of Informal Waste Pickers' Cooperatives in Blantyre, Malawi: A Feasibility Assessment." Sustainability 10(4): 1149. https://doi.org/10.3390/su10041149.

Lebreton, L., and A. Andrady. 2019. "Future Scenarios of Global Plastic Waste Generation and Disposal." *Palgrave Communications* 5(1). https://doi.org/10.1057/s41599-018-0212-7.

Malawi Government. 1996. Environment Management Act. http://extwprlegs1.fao.org/docs/pdf/mlw13233.pdf.

Omondi, I., and M. Asari. 2021. "A Study on Consumer Consciousness and Behavior to the Plastic Bag Ban in Kenya." *Journal of Material Cycles and Waste Management* 23(2): 425–435. https://doi.org/10.1007/s10163-020-01142-y.

Pensulo, C. 2020. "Malawi Factories Ordered to Close after Ignoring Plastics Ban." The Guardian. https://www.theguardian.com/global-development/2020/jun/05/malawi-factories-ordered-to-close-after-ignoring-plastics-ban.

Princewill, N. 2021. "Malawi's Landscape Is Clogged with Plastic Waste That Could Linger for 100 Years: One Woman Has Taken on Plastic Companies and Won." CNN. https://www.cnn.com/2021/06/15/africa/malawi-landscape-plastic-pollution-cmd-intl/index.html.

Turpie, J., G. Letley, Y. Ng'oma, and K. Moore. 2019. The Case for Banning Single-Use Plastics in Malawi. Report prepared for UNDP on behalf of the Government of Malawi by Anchor Environmental Consultants in collaboration with Lilongwe Wildlife Trust. Anchor Environmental Consultants Report No. AEC/1836/1.64pp.

UN Environment | UNDP-UN Environment Poverty-Environment Initiative. (n.d.). *Malawi Introduces Ban on Thin Plastic*. https://www.unpei.org/malawi-introduces-ban-on-thin-plastic-2/.

APPENDIX – METHODS

To start off the search for policy documents, researchers referenced the Nicholas Institute's Plastics Policy Inventory for any relevant national or subnational policies in Malawi. At the time this case study was initially drafted, there were no policies from Malawi in the Inventory.

In addition to the Malawi plastic pollution policy search, researchers then searched for academic and grey literature relating to plastic pollution and relevant policies in Malawi. This search was mostly done through Google Scholar. Search terms included, but were not limited to, "Malawi plastic," "Malawi plastic pollution," "Malawi plastic pollution policies," "Malawi plastic bag ban," "Malawi single-use plastic," and "Malawi plastic use." Eight total articles were found, and all were screened for inclusion. The inclusion criteria were that the articles described the plastic pollution problem in Malawi, described relevant policies in Malawi, or they described the effectiveness of relevant policies. They were then read through and relevant information that could aid this case study was extracted. When citations referenced additional literature that seemed relevant, those papers were subsequently screened for inclusion as well. This is the primary method in which the background information was collected.

Once the secondary literature had been exhausted for relevant policies, researchers then moved the search to InforMEA and ECOLEX to see if any more policies could be found that were not referenced in the literature. No new policies were found.

Much of this scholarly literature referenced Malawi plastic pollution and discussed in detail the attempts Malawi has made to implement plastic bans (2015–2019) that were met with opposition from businesses. To find more policies, the Document Library of the Malawian Environmental Affairs Department was reviewed. This is how the specific language of the policy documents was discovered and analyzed. The three policies which demonstrated an intent on behalf of policy makers to address plastic pollution were then entered into the Plastics Policy Inventory. Five policies were found that were related to waste management and other environmental issues, however due to the constraints of our search, could not be included because they did not specifically reference plastic. These policies (The National Environment Action Plan 1994, Malawi National Environment Policy, National Climate Change Management Policy, Malawi State of Environment Outlook Report and the Urban Structure Plan of Lilongwe City 2013) probably have had positive effects on plastic pollution but are outside the scope of this project. More information is needed about the effectiveness of these policies and the implications of the disparity between urban and rural plastic use.

Finally, to check if any new policies had been agreed upon or enacted since the publication of the secondary literature, the same search strings that were used to find the literature were applied in a normal Google search. Here, researchers were looking for recent news articles referencing policies that may have been implemented and not yet included in any literature. Nothing new was discovered, however these news articles did provide a more in-depth understanding of the plastic pollution issue and the effectiveness of existing pollution policies in Malawi from a primary point of view. As a result, tertiary sources were added to the background information section.