

PLASTICS USAGE & POLLUTION IN MALAWI

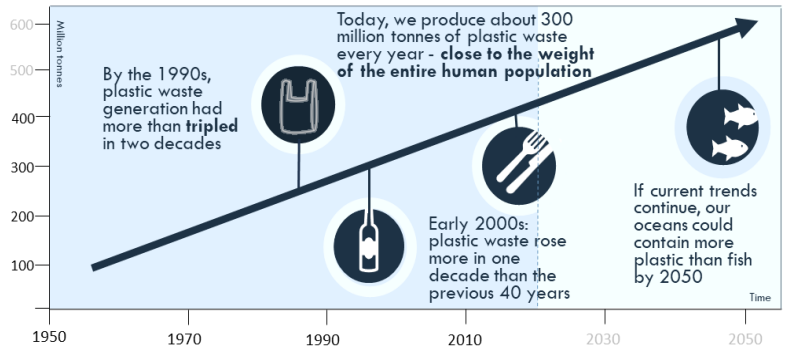
INTRODUCTION

Globally, the impacts of plastics on the environment are estimated to result in natural capital losses of \$40 billion per year.¹ The scale of this destruction has catalysed a global movement for change, with governments, civil society and private sector actors all making bold commitments to tackle the plastic pollution crisis.

This paper summarises the findings of an independent assessment, commissioned by the Government of Malawi's Environmental Affairs Department, to better understand the potential social, economic and environmental impacts of banning thin plastics in Malawi. The research was led by Dr. Jane Turpie, consultant at Anchor Environmental, South Africa, with funding from UNDP and technical support from Lilongwe Wildlife Trust. The assessment consisted of an extensive review of international scientific studies, complimented by interviews and data collected from 26 government, NGO and private sector contributors. The full assessment will be published shortly and is available upon request.

THE GLOBAL RISE IN PLASTICS

Since plastics were first commercially developed in the 1950s, global demand for this product has increased twenty-five fold, with plastic production rising from 15 to 381 million tonnes between 1964 and 2015.² There are no signs that this trend is set to slow in the future, with production expected to double again in the next 20 years and almost quadruple by 2050.³



WHERE DOES MALAWI STAND?



Estimates suggest that 75,000 tonnes of plastic is produced in Malawi each year, of which 80% is single-use plastic that cannot be recycled.⁴ Malawians are producing more waste per capita than their sub-Saharan counterparts, creating a demand which far outstrips the capacity of current waste management systems. Rapid urbanisation, coupled with changing consumer demands, is driving further escalation in plastic production in Malawi. Based on population growth rates, it is estimated that by 2030 the amount of plastic waste generated in the capital city, Lilongwe, will be close to 32,000 tonnes - more than double that in 2014.⁵

450

Years it takes for a plastic bottle to biodegrade



% of plastic waste that ends up in landfills or the natural environment

79

51

% increase projected in Africa's waste pollution by 2025



% of Malawi's plastic productions estimated as single-use plastic

80

1000

tonnes of solid waste produced daily by Malawi's cities



tonnes of solid waste uncollected each year in Malawi's cities

280k

CONSEQUENCES OF PLASTIC POLLUTION



Environmental degradation

Very little plastic waste is recycled or incinerated. Much of it ends up in landfills, where it can take up to 1,000 years to decompose. Plastic litter can also release harmful chemicals into the soil, which then seep into groundwater or other surrounding water sources. Microplastics can also interact with soil fauna, affecting their health and soil functions.

Biodiversity loss

Plastic litter has significant negative impacts on wildlife as items are ingested by animals, causing blockages in breathing passages and stomachs. In marine wildlife, the number of species reported to be affected by ingestion and entanglement increased by 40% between 1997 and 2012.⁶

Contribution to climate change

Plastic manufacturing and after-use incineration generate greenhouse gas emissions that contribute to climate change. Based on current trends, the emission of greenhouse gases from the global plastics sector is expected to account for 15% of the global annual carbon budget by 2050 (compared to 1% in 2017).⁷

Urban flooding

Plastic litter can clog drains, sewers and waterways, exacerbating the risk, frequency and severity of flooding. In turn, this causes damage to infrastructure, loss of productivity as a result of disrupted work, and threats to human health.

Accra: counting the tragic cost of plastic pollution

Waste management is a national problem in Ghana, but is most acutely felt in the capital city, Accra. This fast-growing city of four million people generates about 3,000 metric tonnes of waste a day. In 2015, this problem took a fatal toll when a combination of prolonged, heavy rain and drains clogged with plastic litter caused severe flooding, killing over 150 people. Alongside the loss of life, the local economy was brought to a halt for weeks at the expense of millions of dollars.



↓ **40 BN**

\$ annual loss of global natural capital from plastics packaging in the consumer sector alone

⊕ **150**

Deaths following severe flooding from clogged drains in the city of Accra, Ghana in 2015

🐟 **2050**

The year that the oceans and inland lakes will contain more plastic than fish

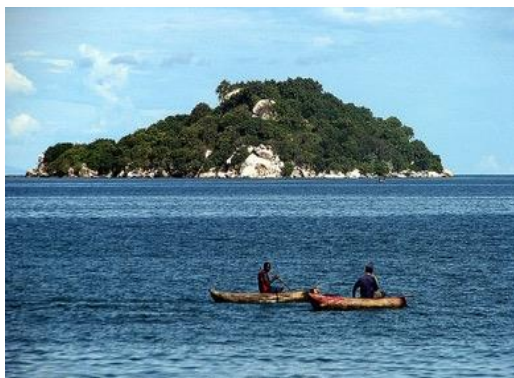


Human health costs

By clogging sewers and providing breeding grounds for mosquitoes and pests, plastic bags can increase the transmission of vector-borne diseases like malaria and also cholera. There is also evidence that the toxic chemicals added during the manufacture of plastic transfer to animal tissue, eventually entering the human food chain. In areas where domestic waste – including plastic – is burnt for cooking or heating purposes, or as a means of disposal, people can be exposed to dangerous toxic gases.⁸

Loss of tourism revenue

Plastic litter creates visual pollution, which can be a significant problem for countries that rely heavily on tourism as a major source of GDP. Marine plastics are estimated to cost the tourism, fishing and shipping industries in the Asia-Pacific region \$1.3 billion.⁹ Pollution poses a major threat to the status of Lake Malawi as a World Heritage Site, with significant economic costs to the tourism industry as a result of a loss in aesthetic value.¹⁰



Impacts on fisheries and agriculture

Loss of marine life as a result of plastic pollution will have serious consequences for fishery stocks and production. This is a particular concern in Malawi, where many livelihoods are linked to the fisheries of Lake Malawi and other floodplain wetlands. Damage to soil and water quality also poses a threat to food production and has significant impacts on small-scale farmers who are dependent on livestock and crop production as their main source of income¹¹. In a recent study in Mponela, Malawi, 40% of slaughtered livestock were found to have plastics in their gut¹³.



References

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2. PlasticsEurope, 2013. *Plastics – the facts 2013. An analysis of European latest plastics production, demand and waste data.*
3. Ellen MacArthur Foundation, 2017. *The New Plastics Economy: Rethinking the future of plastics and catalysing action.*
4. UNDP, Lilongwe Wildlife Trust and Anchor Environmental, 2019. *Making the case for banning single-use plastic products in Malawi.*
5. As per reference 4.
6. As per reference 1.
7. As per reference 3.
8. United Nations Environment Programme, 2018. *Single-use plastics: A roadmap for sustainability.*
9. As per reference 9.
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11. As per reference 4.
12. Survey conducted by Lilongwe Wildlife Trust, April 2019 (1,554 respondents).
13. Chiotha, S. and Gabbot, S – publication pending.

\$ 80 BN +

Value (\$) of single-use plastic that is thrown away each year



10

Years taken to exceed the amount of plastic produced in the last century



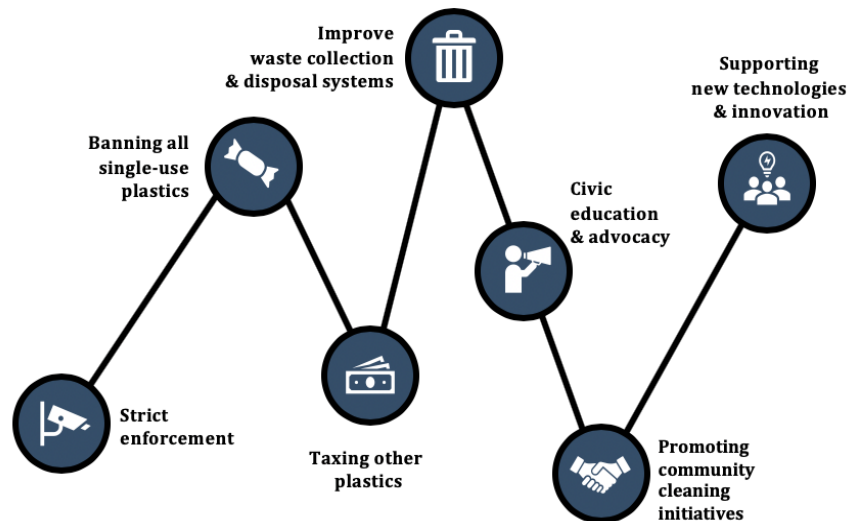
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% of plastic that has ever been recycled

THE WAY FORWARD

There is strong public and political support for a ban on thin plastics in Malawi - 94% of respondents in a recent survey expressed support for the ban.¹²

Long-term social, behavioural and institutional change will require a combination of interventions and initiatives from State and non-State actors.



LESSONS FROM...

...Africa's 'cleanest city', Kigali, Rwanda

In 2008, following a four-year consultative process and a significant amount of community sensitisation, the Rwandan Government banned the production, use, importation and sale of all polyethylene bags. The ban is enforced effectively, with those violating the law facing heavy fines or even jail time. The country also observes a national clean-up day every month and any plastic bag is confiscated from visitors on entry. As a result, the country has developed an international reputation for its cleanliness and in 2008 Kigali was named the cleanest city in Africa by UN-Habitat. Tourism revenue has increased and clean-up costs reduced. In January 2019, the Government drafted a law seeking to prohibit the manufacture, use and sale of all single-use plastics.



...Food Lover's Market, Malawi

Most fruit and vegetables can be weighed without packaging at the till, plastic bags are available but actively discouraged with signage and paper bags are provided at a low cost, reflecting a progressive approach to retail in comparison to



...Shore Rubber, Malawi

Shore Rubber has been in operation in Lilongwe, Malawi for 14 years. The plastic manufacturing and recycling company recycles about three tonnes of plastic waste per day, equating to 90 tonnes per month. This includes plastics, carrier bags and woven sacks, but the company is also looking into recycling plastic bottles in the future. The recycled plastic is made into black polyethylene sheets for use in tobacco curing and construction. Discounts are offered to farmers who collect their old sheets to be recycled again.

