



Chunga Landfill in Lusaka

Ending Plastic Pollution
A pictorial commemoration

2025



Hivos is an international development organization committed to building just, inclusive, and life-sustaining societies. We collaborate with key rights-holder groups and social movements to place their priorities and agency at the heart of global climate action. By fostering multi-stakeholder partnerships and focusing on political, financial, and behavioral interventions, we aim to spark the tipping points that lead to positive, transformational social change.

Through initiatives such as **Voices for Just Climate Action (VCA)** and the **Strengthening Respect for Environmental Rights in Zambia (SR4ER)** program, Hivos empowers civil society organizations and local communities to advocate for their environmental rights—working toward a clean, safe, and healthy environment that supports sustainable development

Ending Plastic Pollution in Zambia

In this special edition of 2025, we focus on ending plastic pollution.

Plastic pollution is a significant environmental challenge in Zambia, impacting both urban and rural areas. The widespread use of non-biodegradable plastics has led to severe consequences, including the choking of public drainage systems, which causes flooding and the overflow of hazardous materials. This pollution also contributes to health issues, such as foodborne diseases like cholera.

In Zambia, plastic waste is often discarded in undesignated areas, exacerbating the problem. Efforts to combat plastic pollution include initiatives by various stakeholders who are actively involved in collecting, recycling, and repurposing plastic waste into useful products. Despite these efforts, more interventions are needed to achieve significant impact.

As we focus on ending plastic pollution this World Environment Day, it is crucial to continue raising awareness and implementing sustainable practices to protect Zambia's environment and ensure a healthier future for all.

Introduction

Welcome to this exquisite collection of nature photographs, taken by NewZambian Innovations. As we gather to commemorate World Environment Day 2025 in Lusaka, we are reminded of the profound beauty and fragility of our natural world.

This book showcases the vibrant wildlife, dedicated conservation activities, and insightful artistic commentary that reflect the essence of Zambia's rich environmental heritage. Each photograph is a testament to the efforts of the Kukonza Chilengedwe Artists' Network on climate change, supported by the Hivos VCA (Voices for Just Climate Action) program. This interdisciplinary network of artists is committed to raising awareness about climate change, environmental sustainability, and conservation.

NewZambian Innovations, a proud partner in building this network, has brought together these stunning visuals to inspire and educate. We extend our heartfelt gratitude to the Zambian Government and in

particular the Ministry of Green Economy and Environment (MGEE), Global Environment Facility Small Grants Programme (GEF-SGP) implemented by the United Nations Development Programme (UNDP), Wildlife Crime Prevention Programme (WCP), United States Agency for International Development (USAID) Alternatives to Charcoal project implemented by Tetrateck for their invaluable support and exposure to some of the locations where these photographs were collected.

As you turn the pages, may you be moved by the beauty of Zambia and our planet and motivated to join the collective effort to protect and preserve it for future generations.



Children on a dugout canoe on Lake Bangweulu in Samfya, Luapula Province

Plastics in lakes can enter the food chain, creating a possibility for humans consuming microplastics through drinking water and seafood. Studies suggest that microplastics may disrupt human metabolism and pose long-term health risks.



Fishermen on a dugout canoe on Lake Bangweulu in Samfya, Luapula Province

Fish and other aquatic animals mistake plastic for food, leading to digestive issues, starvation, and even death. Plastics can also entangle wildlife, restricting movement and causing injuries.



A forestry officer visiting a community in Zambezi District to see how their apiculture project is doing...beehives can be seen hanging in the trees.

Apiculture also encourages protection of forests which acts as carbon sinks. Bees are essential pollinators, helping plants reproduce and maintain biodiversity. They support the growth of trees, flowers, and crops, which benefits ecosystems and food production.



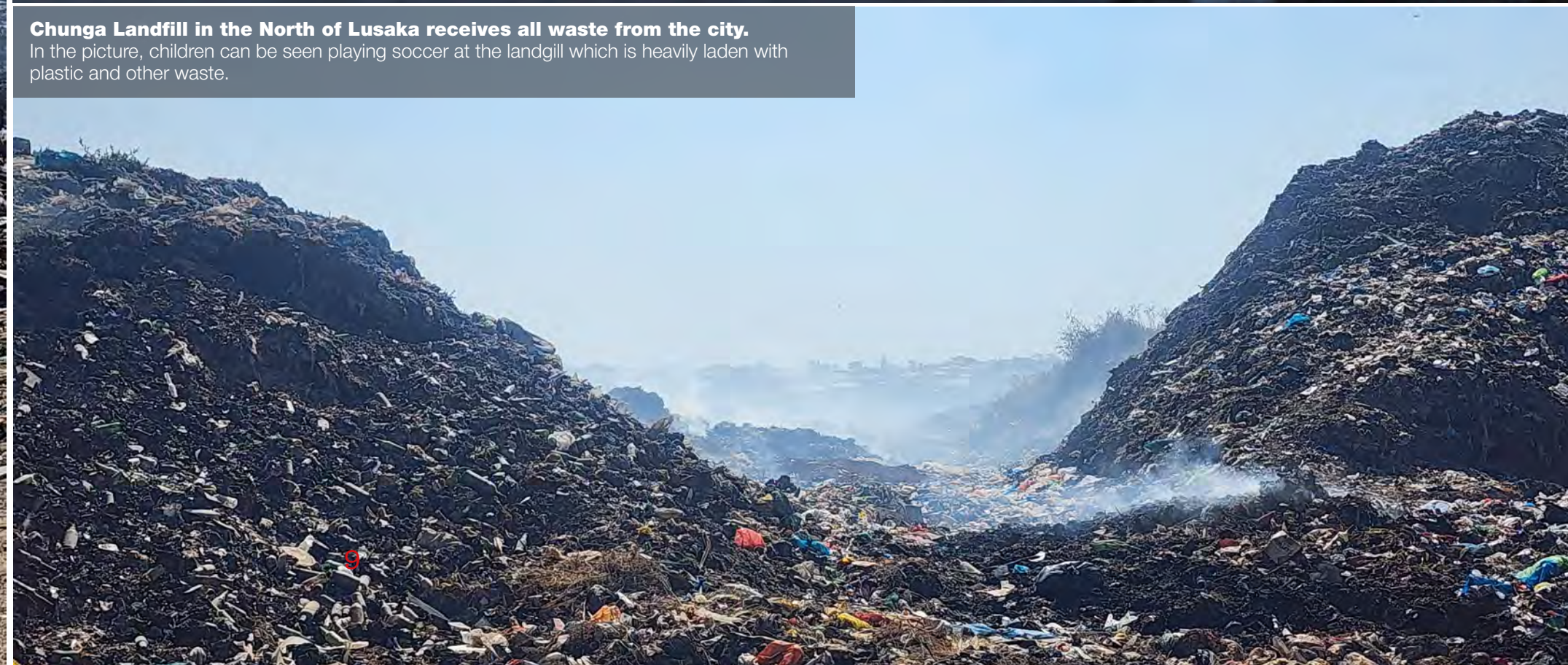


Wildlife Conservation Officers in the North Luangwa National Park supported by FZS and WCP demonstrate how dogs support wildlife law enforcement

Plastic Pollution is also a threat to wildlife as poor waste management and lack of strict regulations allow plastic pollution to spread and harm animals through ingestion, entanglement, and habitat degradation.



Chunga Landfill in the North of Lusaka receives all waste from the city.
In the picture, children can be seen playing soccer at the landgill which is heavily laden with plastic and other waste.



Alternatives to charcoal are constantly being sought to protect Zambia's forests while ensuring livelihoods for Zambia's communities

Organisations like Keepers Zambia Foundation has been promoting the use of traditional cookstoves as alternatives. Recent innovation has explored converting plastic waste into charcoal-like materials. This process involves pyrolysis, where plastic is heated in the absence of oxygen to create a carbon-rich material. The resulting charcoal alternative can be used for energy generation while reducing plastic waste pollution.



Beehives hanging high in the trees will ensure that the tree on which they are hung are not cut for charcoal in Mumbwa District, Central Province

This project in Mumbwa District supported by the alternatives to charcoal project is yet another example of efforts to save forests in Zambia through apiculture.



A female elephant adorned with some cooling grass in the Mfuwe National Park in Eastern Province of Zambia

Elephants may accidentally consume plastic while foraging, leading to digestive issues, malnutrition, and even poisoning. Microplastics can enter their system, potentially causing long-term health effects. Rivers and lakes polluted with plastic affect elephants that rely on these water sources for drinking and bathing. This can lead to human-wildlife conflicts, as elephants may wander into villages searching for better resources.



A pair of Southern ground hornbill strolling in Mfuwe National Park, Eastern Province

Plastics absorb harmful chemicals from the environment, which can poison birds when ingested. Birds suffering from plastic exposure may experience reduced cognitive functions, affecting their ability to mate and survive. Studies predict that by 2050, nearly all bird species will ingest plastic, leading to widespread population decline.



A Nile monitor in Mfuwe National Park, Eastern Province

The Nile monitor is a large, semi-aquatic lizard native to Sub-Saharan Africa and regions along the Nile River. It is one of the largest lizards in the world, reaching lengths of up to 220 cm and weighing between 0.8 to 20 kg. Nile monitors can get trapped in plastic debris, restricting movement and causing injuries from sharp plastic fragments can cut their skin, leading to infections. Plastic pollution further affects fish and amphibians, which are key food sources for Nile monitors.



A yellow billed stork in the marshes of the Luangwa River in Mfuwe National Park, Eastern Province

Plastic pollution is a growing concern for Mfuwe National Park, which is a gateway to South Luangwa National park. The issue stems from poor waste management, particularly during the rainy season when plastic waste is washed into rivers, streets, and even protected areas.



A Lechwe in Mfuwe National Park, Eastern Province

Plastic waste pollution affects the quality of drinking water for lechwes leading to disease outbreaks and reducing the availability of clean food and water. Polluted environments force lechwes to migrate to less suitable habitats, increasing their vulnerability.



A warthog in Mfuwe National Park, Eastern Province

Warthogs play a vital role in maintaining the balance of ecosystems. They use their snouts to dig for roots and tubers, which helps aerate the soil. This process improves water absorption and supports plant growth. By consuming fruits and vegetation, warthogs help spread seeds, contributing to plant diversity. Warthogs can easily get trapped in plastic debris, restricting movement and causing injuries.



Female hippo and her young in the Luangwa River, Mfuwe National Park, Eastern Province

Plastic pollution can contaminate food environments for Hippos causing them to come into conflict with local communities, especially when they venture into farmland in search of food.



Eastern great egret in Mfuwe National Park, Eastern Province

Egrets feed on fish, frogs, small reptiles, birds, rodents, insects etc. Microplastics can enter the food chain, affecting egrets that consume contaminated fish and other aquatic prey.



WITHOUT US
EARTH...

NATURE WITHOUT HUMANS WOULD THRIVE

There is no species on earth that affects the environment as negatively as humans do, there is also no species on earth that consumes as much as humans do, and no species on earth that kills as much as humans do... We have destroyed our planet so much that we have now entered the Anthropocene period, which is viewed as the period during which human activity has been the dominant influence on climate and the environment. (<https://medium.com/writing-in-the-media/it-would-be-much-better-if-humans-didnt-exist-691a9dd9d33>)



JUST ONE LITRE OF USED MOTOR OIL CAN CONTAMINATE A MILLION LITRES OF WATER.

The use of fossil fuels releases carbon dioxide and methane, two greenhouse gases that trap the Earth's heat within the atmosphere, leading to warmer oceans and climates, unstable weather, rising sea levels, flooding, drought, changes in water flow, declining amounts of potable water, forest fires, famine, species extinction, and pressure on species to adapt, among other things. These changes are not going to take place immediately – they will occur over decades. However, they will gradually increase in occurrence and severity, and will require ongoing mitigation and response.

Just one litre of used motor oil can contaminate a million litres of water.

Pouring used motor oil into the local water supply is destructive and dumping dirty motor oil on any ground is just as bad, as rain will create contaminated runoff which is one of the greatest causes of water pollution.
(<https://keepmidlandbeautiful.org/resources/litter/35-environmental-crime>)



LANDFILL REDUCTION A MUST

Current waste management methods, specifically emissions from landfill, account for almost five per cent of total global greenhouse gas emissions and 12 per cent of the world's emissions of methane (Co4), a greenhouse gas with an impact more than 20 times that of carbon dioxide (CO2).

According to the Clean Development Mechanism (CDM) and Joint Implementation (JI) of the Kyoto protocol, there is a great potential for addressing methane emissions by reducing the amount of waste that ends up in a landfill. Globally nearly 70% of our solid waste is landfilled, a meagre 19% is recovered through composting or recycling, the remaining 11% is converted to energy through incineration or other waste-to-energy technologies.

With aggressive measures for reducing landfilling put into place more than 1000 Mt of CO2-eq could be averted by 2030, costing less than \$100 per ton of CO2-eq per year.
(<https://wastewise.be/2013/08/solid-waste-management-and-climate-change/#.XM7W-egzaUk>)



UNSUSTAINABLE HUMAN FISHING AND CLIMATE CHANGE ARE DEPLETING FISH STOCKS

Global warming is depleting much of the world's sustainable fish stocks and is making it more difficult to rebuild overfished populations, a new study says.

Between 1930 and 2010, there was a 4.1 percent decline in the amount of sustainable catches worldwide, according to the study published Thursday in the journal *Science*. Some of the largest fish-producing eco-regions, like those off the coasts of China and Japan, experienced losses of up to 35 percent.

"A four percent decline might sound small, but it's a loss of 1.4 million metric tons of fish since 1930," lead author Chris Free, a post-doctoral scientist at the University of California, Santa Barbara, told [weather.com](https://weather.com/science/environment/news/2019-03-01-fish-stocks-global-warming). "That's 1.4 million tons of fish no longer available for food and no longer able to support the livelihoods of fishermen." (<https://weather.com/science/environment/news/2019-03-01-fish-stocks-global-warming>)



CARS POLLUTE THE ENVIRONMENT AND CAUSE CLIMATE CHANGE

The transport sector is the fastest growing contributor to climate emissions. Growth in energy use is higher for the transport sector than any other end-use sector. The main drivers of global transport energy growth are land transport, mostly light-duty vehicles, such as cars, as well as freight transport.

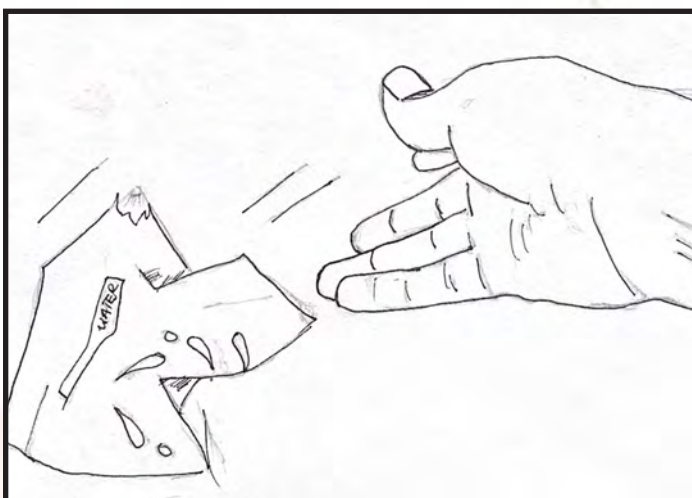
Transport's contribution to climate change include:

- long-lived carbon dioxide (CO₂) emissions and;
- short-lived black carbon generated primarily by diesel vehicles.

CO₂ emissions

Transport accounted for about 23% of global carbon dioxide emissions in 2010 and 27% of end-use energy emissions with urban transport accounting for about 40% of end-use energy consumption. Carbon dioxide persists in the atmosphere for over a century, with long-term warming effects (IPCC, 2014).

(<https://www.who.int/sustainable-development/transport/health-risks/climate-impacts/en/>)



**PLASTIC POLLUTION IS A
SIGNIFICANT ENVIRONMENTAL ISSUE**

With millions of tons of plastic waste ending up in our oceans, harming marine life and ecosystems. As humans, we bear the responsibility to mitigate this problem by reducing our plastic consumption and properly disposing of plastic waste. Recycling plays a crucial role in this effort, as it helps to conserve resources, reduce landfill waste, and decrease pollution. By actively participating in recycling programs and making conscious choices to use sustainable alternatives, we can collectively work towards a cleaner, healthier planet for future generations



Photo by Richings Mwaba of a tree covered with garbage in Chamboli, Kitwe
Indiscriminately discarding waste in communities not only disrupts the natural beauty of surroundings but also risks introducing disease causing germs which can expose communities to infections such as cholera.

A soccer match at Chunga Landfill in Lusaka

The landfill contains waste from across the city of Lusaka and children playing in the vicinity of the landfill including without protective gear raises serious concerns for their welfare and safety.





NewZambian Innovations is a Zambian NGO dedicated to climate change advocacy in Zambia, working in close partnership with Hivos under the Voices for Just Climate Action (VCA) programme. Through this collaboration, NewZambian Innovations harnesses the power of art to elevate awareness about climate change and promote environmental sustainability. Their initiatives, such as the Kukonza Challengedwe Artists' Network, unite artists to create compelling works that highlight the urgent need for climate action. These efforts have significantly engaged local communities, fostering a deeper understanding of the environmental challenges facing Zambia and inspiring collective action

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