WWF SOUTH AFRICA

TOWARDS A COUNTRY AND A WORLD FREE OF PLASTIC POLLUTION

GLOBAL PLASTIC BANS AND PHASE-OUTS: SOCIO-ECONOMIC IMPACTS FOR SOUTH AFRICA

A GLOBAL TREATY

The United Nations Environment Assembly (UNEA) has adopted a decision to start negotiations on a global, legally binding instrument to end plastic pollution. This is pertinent for developing countries such as South Africa, which are disproportionately affected by plastic pollution. The negotiations on the treaty text should be finalised by 2024. The zero draft treaty text sets out options to reduce and eliminate problematic and avoidable plastic products, including short-lived and single-use plastic products and intentionally added microplastics.

THE SOUTH AFRICAN CONTEXT

South Africa has an established plastic value chain and high per capita plastic consumption (32–41 kg compared to the global average of 29 kg). Packaging accounts for 52% of plastic use, followed by the construction and agricultural sectors. Each year, 488 kilotonne (kt) of plastic pollutes the environment. It contributes to air pollution through open burning (275 kt), land pollution (145 kt) and aquatic (freshwater and marine) pollution (68 kt).

A LOCAL SOCIO-ECONOMIC STUDY

In 2023, WWF South Africa commissioned a report on the socio-economic impacts of the mandatory bans and the phasing out of 10 identified "high-risk" plastic products[1] used in South Africa. The study encompasses a comprehensive set of socio-economic indicators. Policymakers and industry must understand the socio-economic implications of the proposed global bans and phase-outs, coupled with the imperative and benefits of shifting to a circular economy.

[1] High-risk plastic product groups are based on two broad metrics: probability that the products enter the environment, and the impacts when products do enter the environment.

10 PROBLEM PLASTIC PRODUCTS CHOSEN FOR THE 2023 STUDY

The 10 products were chosen based on credible international and local sources.

- **Four for immediate ban (2024–2025):** Plastic stirrers; straws (except for medical use); oxo-degradable additives (e.g. used for dog faeces bags); and microbeads in personal care products (e.g. in face scrubs and toothpaste).
- **Six for phasing out (2025–2030):** Barrier bags (e.g. for fruit, vegetables, fresh bread); lollipop sticks; polystyrene fast-food / takeaway containers; sachets for takeout food items (e.g. tomato sauce); single-use tableware; and cotton buds with plastic stems.
- **Bans vs phase-outs:** The plastic products chosen for bans are regarded as unnecessary and avoidable; if alternatives are needed, they are already available. For the phase-out items, economically and technologically feasible alternatives are not readily available, so time is needed for further research and development. None of the 10 plastic products is collected for recycling by informal reclaimers or waste pickers, so the bans and phase-outs will not directly affect their livelihoods.
- **Excluded problem plastic items:** Cigarette filters, snack packaging, sanitary towels, baby diapers, fishing nets, polystyrene vending cups and lids of soft-drink bottles all have a high leakage rate into the environment in South Africa, but were excluded because of a lack of environmentally sound and / or economically feasible alternatives. These items could be considered after dedicated research and the development of replacements.

AFRICAN CIRCULAR ECONOMY NETWORK

Norwegian Retailers' Environment Fund

TOWARDS A WORLD FREE OF PLASTIC POLLUTION

THREE SCENARIOS

- A **business-as-usual** scenario, which forecasts how the industry and economy would evolve without any interventions.
- An outright **ban** on four selected plastic products deemed unnecessary or readily replaceable by 2025.
- A steady **phase-out** of six selected plastic products, with complete cessation by 2030.

THREE KEY FINDINGS

- The ban and the phase-out scenarios demonstrate **positive economic outcomes** with notable real gross domestic product (GDP)[2] and employment expansion compared to the baseline business-as-usual scenario, in a country where the wider plastic manufacturing and conversion sector contributes 2% to the GDP.
- The ban scenario for the four items displays a sharp **boost to the economy**.
- The phase-out approach for the six items shows a **shift** towards higher-skilled, better-paying jobs.

BAN SCENARIO

Notable shifts in several key economic indicators (2024–2025)

Products

Banned products

- Plastic stirrers
- Straws
- Oxo-degradable products
- Microbeads in personal care products

Alternatives included in the model

- Metal spoons and wooden stirrers
- Only for medical use
- No replacement or alternative needed; ban outright
- Cellulose-based particles

Real GDP	Exports of goods and services	Imports of goods and services
0,5% — A positive deviation of approximately 0,5% from the baseline up to 2030	0,7% — A positive deviation of 0,7% from the baseline up to 2030	0,3% — A positive deviation of 0,3% from the baseline up to 2030

PHASE-OUT SCENARIO

A more gradual approach to finding alternatives (2025–2030)

Products

Banned products

- Barrier bags
- Lollipop sticks
- Polystyrene fast-food / takeaway containers
- Sachets for takeout food items
- Single-use tableware
- Cotton buds with plastic stems

Alternatives included in the model

- Paper; reusable, fabric or no bags
- Wood, paper sticks
- Compostable clamshell containers
- Reusable containers (e.g. pump bottles or dispensers in store)
- Reusable tableware, wood
- Paper stems

Real GDP	Exports of goods and services	Imports of goods and services
3% — A positive deviation of 3% from the baseline up to 2030	5% — A positive deviation of 5% from the baseline up to 2030	2,8% — A positive deviation of 2,8% from the baseline up to 2030

[2] Real GDP is an inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.

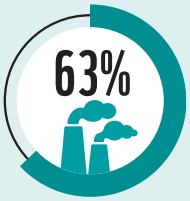
WHAT DO BANS AND PHASE-OUTS MEAN FOR EMPLOYMENT AND WAGES?

In a country with extreme levels of unemployment (currently 33%), the study paid specific attention to indicators for job creation, job loss and the diversity of the skilled workforce that may be linked to the production and manufacturing of plastic items. The findings showed that both the banning and the phasing-out of high-risk plastic products would yield positive socio-economic outcomes.

IF NOTHING IS DONE BY 2040

PLASTIC POLLUTION WILL DOUBLE IN SOUTH AFRICA

GHG EMISSIONS WILL INCREASE BY



TOTAL EMPLOYMENT GROWTH

Total employment growth includes both formal and informal employment. The total employment per scenario increases as follows up to 2030:

- **Baseline scenario:** 3,2%
- **Ban scenario:** 3,5%
- **Phase-out scenario:** 5,2%

HIGHER WAGES

Cumulative wage increases for each scenario are as follows up to 2030:

- **Baseline scenario:** 8%
- **Ban scenario:** 8,4%
- **Phase-out scenario:** 10,4%

WHAT HAPPENS IN THE INFORMAL SECTOR?

- **Baseline scenario:** Informal employment shows a cumulative increase of 22% by 2030.
- **Ban and phase-out scenarios:** Informal employment increases, with cumulative growth rates of 23% and 24% by 2030, respectively.

GENDER

From a baseline of total employment at 7 959 million females and 6 959 million males, growth by 2030 is:

- **Ban scenario:** An increase of 22 000 jobs for females and 24 000 jobs for males.
- **Phase-out scenario:** An increase of 159 000 jobs for females and 151 000 for males.

GREENHOUSE GAS EMISSIONS

- **Ban scenario:** There is an increase of 0,35% in GHG emissions across all sectors from the baseline because of slight increases in the mining and manufacturing sectors following the switch to alternatives.
- **Phase-out scenario:** Across all sectors, the overall GHG emissions increase by 0,55% from the baseline.

PLASTIC POLLUTION

There are savings in externalities in the following cost categories: waste management; foregone economic value[3] in economic sectors, including tourism, shipping and fishing; and marine ecosystem services.

[3] Foregone economic value is the difference between the actual monetary value of a sector and the monetary value that could have been realised for that sector had there been no costs or externalities.

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KEY MESSAGES

- The zero draft text of the global treaty to address plastic pollution currently lists global bans and phase-outs of problematic and avoidable plastic products as a control measure option.
- The impacts of these bans and phase-outs on specific socio-economic indicators in the South African economy, including employment and jobs, were determined using a macroeconomic model.
- The study considers three scenarios: the baseline or status quo, an outright ban on four selected products deemed feasibly replaceable by 2025, and a phased withdrawal of six products by 2030.
- Results show a boost to real GDP outcomes and total employment for all genders, and an improvement in real wages and household income.
- The ban and phase-out scenarios show evidence of environmental benefits in terms of a reduction in plastic leakage, whereas GHG emissions show a slight increase across all sectors.

THE PROJECTED QUANTIFIABLE ECONOMIC COST OF PERSISTING WITH THE BUSINESS-AS-USUAL SCENARIO UNTIL 2030 IS APPROXIMATELY

R47,8 BILLION

RECOMMENDATIONS FOR POLICY- AND DECISION-MAKERS

- Given the evidence of overall beneficial socio-economic outcomes of the bans and phase-outs, the South African government should **support this control measure in negotiating the text of the global treaty**. It should also highlight the need for support for implementation.
- Job losses in the plastics sector and gains in sectors providing alternative products and services would require workforce **reskilling and training** initiatives by both the government and the private sector.
- **Localisation of manufacturing** for domestic use (and export) of alternative products (e.g. refillable packaging models) would support job creation for both genders.
- Specific focus is needed to **support the informal sector and marginalised communities** through providing alternatives that avoid any burden of increased costs or barriers to access.
- As society saves costs across the triple bottom-line, including direct costs for waste management and clean-ups, it can **use its resources and finances for new circular business models**.
- **Economic policy, such as tax subsidies or fees to incentivise the manufacture and use of alternative products** and systems, would be required, accompanied by **behaviour change programmes** for businesses and citizens.
- New national collection and reporting systems would be required to ensure improved and harmonised **data collection, monitoring and reporting** to the international body responsible for treaty implementation, and to inform future targeted interventions that use a socio-economic lens.
- **International collaboration**, especially with nations sharing a **similar context**, would support knowledge sharing, research and technology transfer under the global treaty.

PLANNING FOR THE FUTURE

South African stakeholders could proactively prepare for the future banning and phasing out of high-risk plastic products, chemicals and polymers by adopting a multifaceted approach that combines regulatory measures, public–private partnerships, investment in innovation and active stakeholder engagement.

In doing so, South Africa can navigate these future scenarios, while safeguarding economic prosperity, environmental sustainability and societal well-being.

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