# Health and environment scorecard

# Botswana



39 Summary score:

Exposure score:

33

Health score:

59

**Policies** 

Policy score: 24

The scores represent simple averages.

See methods and results for additional information.

The scores are out of 100.

### Extent of the problem



3 x the WHO air quality guideline value for PM<sub>2.5</sub>

WHO Guideline

Annual country (annual mean): mean: 13 µg/m<sup>3</sup> 5 μg/m<sup>3</sup>



34%

30%

Health impact

Deaths from stroke and ischaemic heart disease caused by air pollution1



Existence of legal standards for PM25

no



Compliant with WHO Air **Quality Guidelines** 

N/A



Existence of national policy on household energy

Population without clean fuels and technology for cooking

<sup>1</sup> Air pollution causes many other diseases and adverse health outcomes, only stroke and ischaemic heart disease have been chosen for this scorecard.

hygiene

N/A



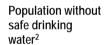
View actions

and interventions











N/A

Population without safe sanitation2

66% Deaths from diarrhoea caused by unsafe drinking water, sanitation and inadequate personal

### Sufficient funding for implementation of national plans

	Urban	Rural
water	75-94%	75-94%
	of what is needed	of what is needed

of what is needed Health care

75-94%

facilities 75-94% of what is needed

<50% of what is needed

75-94% of what is needed

Schools

<sup>2</sup> Operationalised as using safely managed

# drinking water and sanitation services.







### 100%

Fossil fuels and traditional use of biomass in total final energy consumption



Percentage of hot days3 in 2050 under a high emissions scenario4

N/A

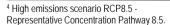
<sup>3</sup>A 'hot day' is a day when maximum temperature exceeds the 90th percentile threshold for that time of ear. The threshold is based on the period 1961

Analysis by the Climatic Research Unit, University of East Anglia, 2018.



Heat deaths in 2050 compared to 1961-1990 period under a high emissions scenario4 in the 65+ age group

### 61x more



<sup>&</sup>lt;sup>5</sup> Existence of a recent national assessment and plan refers to having conducted a climate change and health vulnerability and adaptation assessment and/or a health national adaptation plan (HNAP) since January 2020.



Sanitatior

### Existence of recent national assessment and plan5

Vulnerability and Health National Adaptation plan adaptation (HNAP) assessment



### Commitment to **COP26 Health Programme**

Climate resilient health systems yes

Sustainable low Net zero carbon health commitment systems yes no



Inclusion of health co-benefits in Nationally Determined Contribution (NDC)

no

<sup>\*</sup> Data not undergone country consultation/ not UN data. N/A: not available.

World Health Organization 2025. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO license.

# Botswana



# Diadivorcity



View actions

and interventions

Terrestrial and marine area protected

**29** %

Extent of the problem

Global target: Conserve 30% of land, waters and seas by 2030.

Change in forest area 1990-2020



- 19 %

Change in forest area (%)



-35 490 km2

Change in forest area (km2)

## Health impact

**INSUFFICIENT DATA** 

# **Policies**



Post-COP15 National Biodiversity Strategy and Action Plan submitted

no



-

View actions and interventions



Mean blood lead level in children under 5 years\*

4 µg/dL

International Health Regulations (IHR) capacity score for chemical events<sup>6</sup>

20 %

(out of 100%)

Key informants report on attainment of a set of attributes for chemical events (core capacity 14) using a standard WHO instrument. Poisoning deaths in 100,000 children under five, per year:

2

Regional values:

0 7 Min Max



Existence of legal limit on lead paint

N/A



Existence of a poison centre

N/A



Party to the Minamata Convention on Mercury

yes

Radiation



View actions and interventions

International Health Regulations (IHR) capacity score for radiation emergencies<sup>7</sup>

40 %

(out of 100%)

<sup>7</sup> Key informants report on attainment of a set of attributes for radiation emergencies (core capacity 15) using a standard WHO instrument. Deaths per 100,000 people from melanoma and other skin cancers, per year:

1

Number of deaths per 100,000 people from residential radon, per year:\*

<1



Existence of standards on electromagnetic fields

N/A



Existence of regulation of artificial tanning devices/sun beds

N/A



Existence of national radon regulations for dwellings

N/A

<sup>\*</sup> Data not undergone country consultation/ not UN data. N/A: not available.

<sup>©</sup> World Health Organization 2025. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO license.

# Botswana





View actions

and interventions

## Extent of the problem

Informal employment in total employment

76%



Working age population exposed to long working hours (≥55 hours/ week)

22%

# **Health impact**

Deaths per 100,000 people of working age from diseases due to occupational risks, per year

14

Regional values:

3 26 Min Max

Deaths per 100,000 people of working age from injuries due to occupational risks, per year

4

Regional values:

0 29 Min Max **Policies** 



Existence of national policy instruments for occupational health and safety for health workers

partially

O of 3 key international labour conventions on occupational safety and health ratified

C155 Occupational safety and health	C161 Occupational health services	C187 Promotional framework
nounn	30111003	

no no no



View actions

and interventions

Health care facilities without basic services

Water

Sanitation



N/A

N/A
Waste management



**m** 

**‡** 

N/A Health care facilities without reliable electricity

supply

**INSUFFICIENT DATA** 



Climate assessment conducted for:

N/A N/A

Climate Environmental resilience sustainability



Existence of standards for WASH health care facilities

N/A



Existence of standards for health care waste management

N/A

Please access the reading guide

here

<sup>\*</sup> Data not undergone country consultation/ not UN data. N/A: not available.

<sup>©</sup> World Health Organization 2025. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO license.

# Health and environment scorecard

# Botswana



### References

### Air pollution

- WHO global air quality guidelines 2021
- WHO SDG Indicator 11.6.2, Concentrations of fine particulate matter (PM2.5);
- 2019 data
- WHO household air pollution data; 2022 data
- WHO Air pollution data portal; health impact data for 2019
- UNEP 2021: Regulating air quality: the first global assessment of air pollution
- legislation; 2020 data
- WHO Household energy policy repository; updated 2024.

### Water, sanitation and hygiene

- WHO, UNICEF: Joint Monitoring Programme for Water Supply, Sanitation
- and Hygiene; 2022 data
- WHO water, sanitation and hygiene: burden of disease, 2019 data
- WHO GLAAS 2021/2022 cycle

#### Climate change

- IEA 2023: Share of modern renewables in total final energy consumption
- WHO Health and Climate Change Country Profiles
- Honda et al. 2014; projections for 2050
- Kendrovskiet al. 2017; projections for 2050
- WHO Health and Climate Change Global Survey, 2021
- WHO: Alliance for Transformative Action on Climate and Health (ATACH):
- Country Commitments, 2024 update
- WHO 2023: 2023 WHO review of health in nationally determined contributions
- and long-term strategies: health at the heart of the Paris Agreement
- ATACH baselines, 2024 data

### Biodiversity:

- World Bank Group, Terrestrial and marine protected areas, 2022 data
- World Population Review 2024: Deforestation rates by country
- FAO 2020: Global Forest Resources Assessment, 2020 data
- CBD Online Reporting Tool 2024, updated 31 December 2024

#### Chemicals

- IHME: Lead exposure estimates, 2023 data
- WHO: International Health Regulations core capacity scores, 2023 data
- WHO: Mortality rate attributed to unintentional poisonings; data for 2021
- WHO: Legally binding controls for lead paint, updated 2024
- WHO: World directory of poisons centres, updated 2024
- UNEP: Minamata Convention on Mercury, 2024 data.

### Radiation

- WHO: International Health Regulations core capacity scores, 2023 data
- WHO: Deaths from melanoma and other skin cancers, 2021 data
- IHME: Deaths from residential radon, 2021 data
- WHO: Electromagnetic fields, updated 2018
- WHO: Sunbeds: Existence of national regulations, updated 2021
- WHO: Existence of national radon regulations, 2019 data.

### Occupational health

- ILOSTAT: Statistics on the informal economy, updated 2024
- WHO: Disease burden from long working hours, 2016 data
- $\underline{\ \ }\text{--WHO/ILO: Joint estimates of the work-related burden of disease and injury,}$
- 2016 data
- Pega et al. 2023
- WHO: Occupational Burden of Disease Application
- WHO: Existence of national policy instruments for occupational
- health and safety for health workers, 2023 data
- ILO ratifications of: C155,161 and C187, updated 2024.

### Health care facilities

- WHO/UNICEF 2024: WASH in health care facilities 2023 data update:
- special focus on primary health care
- WHO: Database on electrification of health-care facilities, updated 2023
- WHO/UNICEF Country progress tracker, updated 2023.

This scorecard is based on already published data (see references). It is a tool to measure and track the progress of Member States and is not intended for ranking. Update 2025.

<sup>\*</sup> Data not undergone country consultation/ not UN data. N/A: not available.

<sup>©</sup> World Health Organization 2025. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO license.