

# Health and environment scorecard

## Botswana

Summary score: **39**

Exposure score: 33    Health score: 59    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

### Health impact

### Policies

#### Air pollution



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

WHO Guideline (annual mean): 5 µg/m<sup>3</sup>

Annual country mean: **13** µg/m<sup>3</sup>



**34%** Population without clean fuels and technology for cooking



**30%** Deaths from stroke and ischaemic heart disease caused by air pollution<sup>1</sup>

<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.



Existence of legal standards for PM<sub>2.5</sub>

no



Compliant with WHO Air Quality Guidelines

N/A



Existence of national policy on household energy

N/A

[View actions and interventions](#)

#### WASH



N/A Population without safe drinking water<sup>2</sup>



N/A Population without safe sanitation<sup>2</sup>

<sup>2</sup> Operationalised as using safely managed drinking water and sanitation services.



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

Sufficient funding for implementation of national plans

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

	Urban	Rural
Sanitation	75-94% of what is needed	<50% of what is needed

	Urban	Rural
WASH	Health care facilities 75-94% of what is needed	Schools 75-94% of what is needed

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#### Climate change



**100%** Fossil fuels and traditional use of biomass in total final energy consumption



Percentage of hot days<sup>3</sup> in 2050 under a high emissions scenario<sup>4</sup>

N/A

<sup>3</sup>A 'hot day' is a day when maximum temperature exceeds the 90th percentile threshold for that time of year. The threshold is based on the period 1961-1990. Analysis by the Climatic Research Unit, University of East Anglia, 2018.



Heat deaths in 2050 compared to 1961-1990 period under a high emissions scenario<sup>4</sup> in the 65+ age group

**61x more**

<sup>4</sup> High emissions scenario RCP8.5 - Representative Concentration Pathway 8.5.

<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.



Existence of recent national assessment and plan<sup>5</sup>

	N/A	N/A
Vulnerability and adaptation assessment	N/A	Health National Adaptation plan (HNAP)



Commitment to COP26 Health Programme

	Climate resilient health systems	Sustainable low carbon health systems	Net zero commitment
	yes	yes	no



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















no

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

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# Botswana

	Extent of the problem	Health impact	Policies
<b>Biodiversity</b>  <a href="#">View actions and interventions</a>	 <p>Terrestrial and marine area protected</p> <p><b>29 %</b></p> <p>Global target: Conserve 30% of land, waters and seas by 2030.</p> <hr/> <p>Change in forest area 1990-2020</p>  <p><b>- 19 %</b></p> <p>Change in forest area (%)</p> <hr/>  <p><b>-35 490 km<sup>2</sup></b></p> <p>Change in forest area (km<sup>2</sup>)</p>	<p>INSUFFICIENT DATA</p>	 <p>Post-COP15 National Biodiversity Strategy and Action Plan submitted</p> <p>no</p> <hr/>
<b>Chemicals</b>  <a href="#">View actions and interventions</a>	 <p>Mean blood lead level in children under 5 years*</p> <p><b>4 µg/dL</b></p> <hr/> <p>International Health Regulations (IHR) capacity score for chemical events<sup>6</sup></p> <p><b>20 %</b></p> <p>(out of 100%)</p> <hr/> <p><small>* Key informants report on attainment of a set of attributes for chemical events (core capacity 14) using a standard WHO instrument.</small></p>	<p>Poisoning deaths in 100,000 children under five, per year:</p> <p><b>2</b></p> <p>Regional values:</p> <p>0                      7</p> <p>Min                      Max</p>	 <p>Existence of legal limit on lead paint</p> <p>N/A</p> <hr/>  <p>Existence of a poison centre</p> <p>N/A</p> <hr/>  <p>Party to the Minamata Convention on Mercury</p> <p>yes</p>
<b>Radiation</b>  <a href="#">View actions and interventions</a>	<p>International Health Regulations (IHR) capacity score for radiation emergencies<sup>7</sup></p> <p><b>40 %</b></p> <p>(out of 100%)</p> <hr/> <p><small><sup>7</sup> Key informants report on attainment of a set of attributes for radiation emergencies (core capacity 15) using a standard WHO instrument.</small></p>	<p>Deaths per 100,000 people from melanoma and other skin cancers, per year:</p> <p><b>1</b></p> <hr/> <p>Number of deaths per 100,000 people from residential radon, per year:*</p> <p><b>&lt;1</b></p>	 <p>Existence of standards on electromagnetic fields</p> <p>N/A</p> <hr/>  <p>Existence of regulation of artificial tanning devices/sun beds</p> <p>N/A</p> <hr/>  <p>Existence of national radon regulations for dwellings</p> <p>N/A</p>

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



## 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](#)
- [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.

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