

## MOZAMBIQUE

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### A. Regulation on sources

Source of lead	Relevant legislation/regulation	Government agencies	Data source
	No standards found at this time for lead.		

### B. International Agreements

Agreement	Year Ratified
1. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	1997 (a) <sup>1</sup>
2. Rotterdam Convention on the Prior Informed Consent Procedure for certain hazardous Chemicals and Pesticides in international trade	2010 (a)
3. Minamata Convention on Mercury	2013 (signature)
4. Stockholm Convention on Persistent Organic Pollutants	2005

### C. Blood lead-level monitoring programs

Details	Data source
1. No details of a national or regional level structured program for blood lead level testing found. However, published studies point to some presence of testing programs at the local level.	1. Refer to section E on scientific papers that perform blood lead-level sampling

<sup>1</sup> Accession (a)

### D. Inventory of toxic sites (Toxic Sites Identification Program (TSIP), Pure Earth)

No toxic sites yet identified at this time.

### E. Scientific papers on lead exposure (Please contact [info@gahp.net](mailto:info@gahp.net) for information on studies not in the public domain)

Topic	Authors	Year	Title	Abstract/ description
Lead exposure	Kaya, Hasan; Akbulut, Mehmet	2014	Effects of Waterborne Lead Exposure in Mozambique Tilapia: Oxidative Stress, Osmoregulatory Responses, and Tissue Accumulation	<b>Abstract:</b> We studied the oxidative stress and osmoregulatory damage as well as the accumulation of lead in Mozambique Tilapia <i>Oreochromis mossambicus</i> exposed to different sublethal concentrations—low, medium, and high (0.5, 2.5, and 5.0 mg/L)—of waterborne lead for 14 d in a semistatic condition. The accumulated levels of Na <sup>+</sup> ,K <sup>+</sup> -ATPase, glutathione (GSH), and thiobarbituric acid reactive substances (TBARS) were determined from samples of gill, liver, intestine, brain, kidney, and muscle tissues. At the end of the experiment, the GSH levels of most tissues were higher in the treated group than in the control group (especially in the liver and kidney) but lower in the intestine. The levels of TBARS in the gill and brain tissues of the fish exposed to high lead doses were significantly higher than those of fish in the control group. Na <sup>+</sup> ,K <sup>+</sup> -ATPase activity seemed to be significantly inhibited in the gill, intestine, and brain tissues across all treatment groups. At the end of the study, the total amount of lead that had accumulated within the various tissues ranked as follows: intestines > kidney > brain > gill > liver > muscle. Our findings suggest that sublethal concentrations of lead can disrupt the health of Mozambique Tilapia and cause oxidative stress and osmoregulatory damage.

## F. Blood testing in National Health Surveys

National Health Survey	Non-Communicable Diseases Risk-Factors Surveillance	Source
Purpose	Determining prevalence HIV, AIDS, and malaria, as well as other indicators of women’s and children’s health in the country. The survey was designed to provide data at national, provincial, area of residence (urban and rural) and other selected characteristics.	<a href="#">Moçambique: Inquérito de Indicadores de Imunização, Malaria e HIV/SIDA, 2015</a>
Sample size	Women aged 15-59 years old and men aged 15-59 years old.	
Blood sample testing	To determine the existence of HIV/AIDS in blood.	
Latest round	2015	
Next round	2021 (ongoing)	