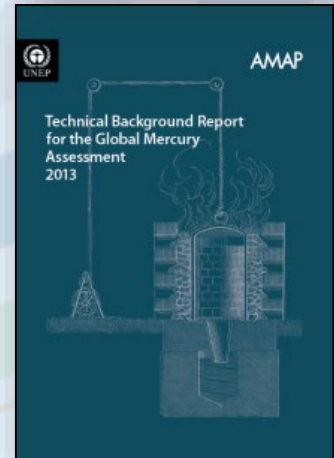


Mercury Research in South Africa Current Status

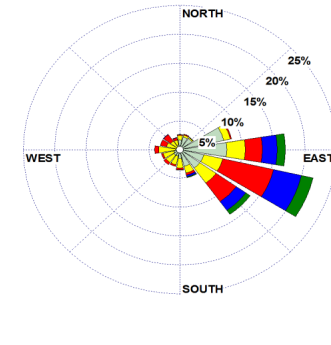
Lynwill G Martin (PhD)

Senior Scientist

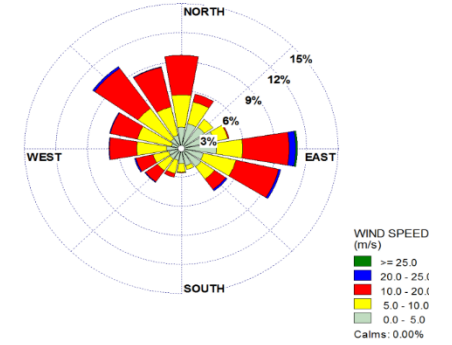
**Cape Point
Global Atmosphere Watch
SA Weather Service (SAWS)**



Cape Point location, Location, LOCATION



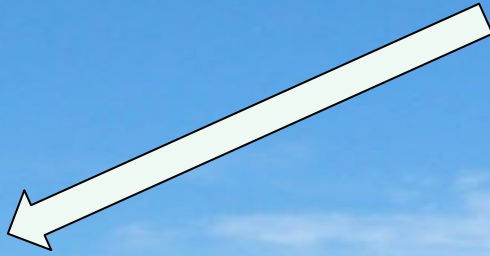
summer



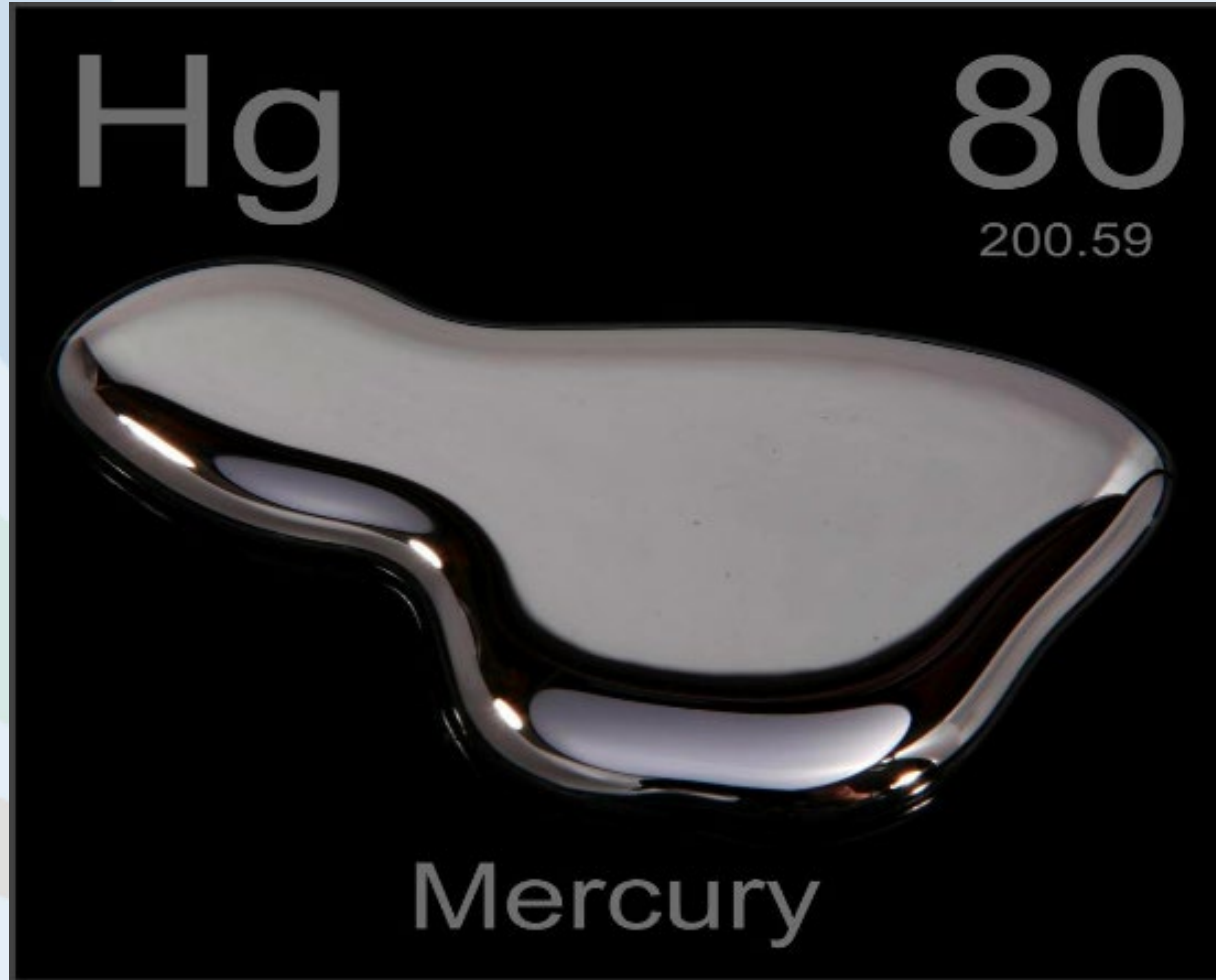
winter



Cape Point GAW Station



WHY MERCURY???

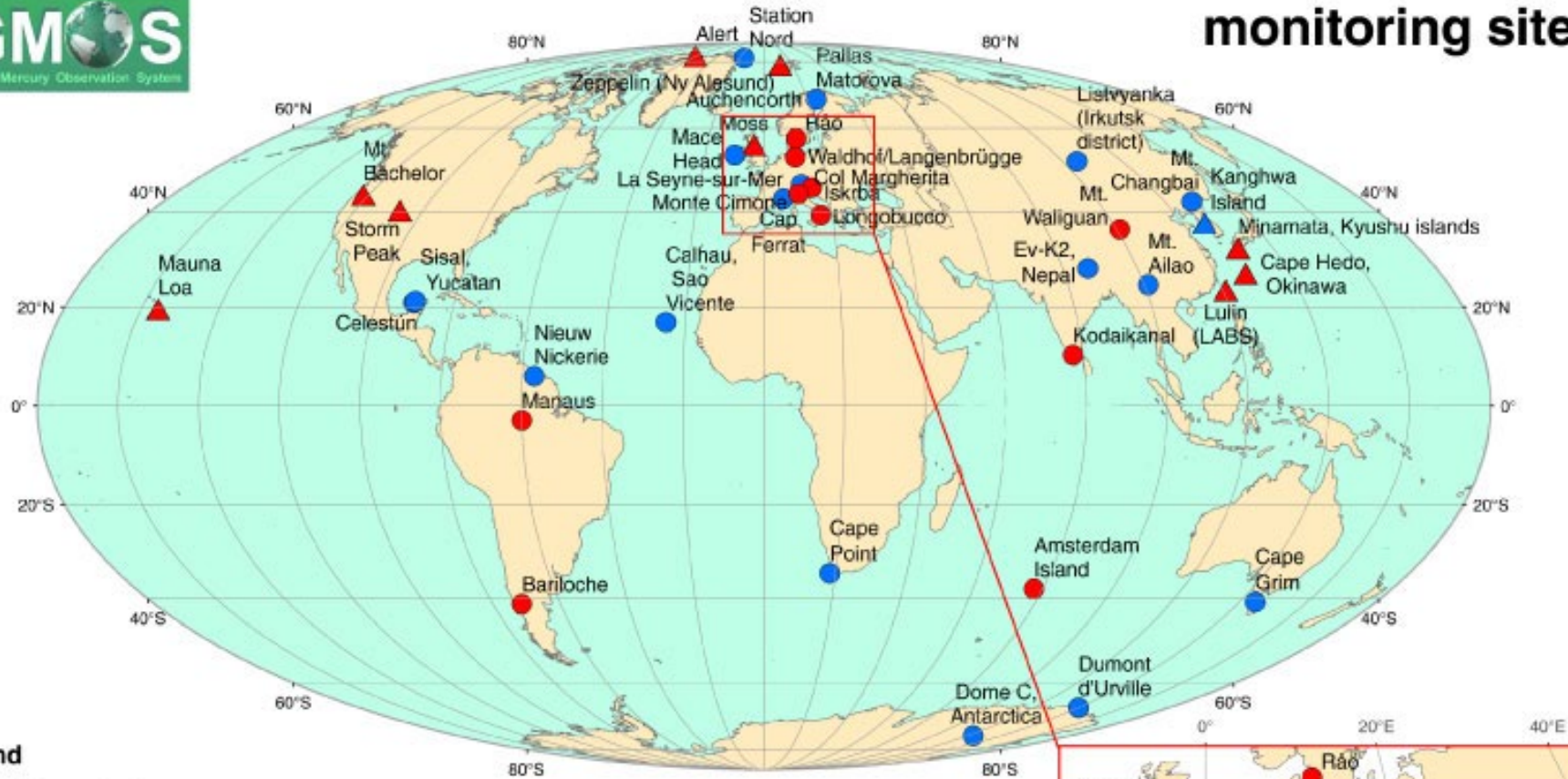


Cape Point Hg Results





Ground-based monitoring sites



Legend

Ground-based sites

- GMOS, MASTER SITE
- GMOS, SECONDARY SITE
- ▲ ASSOCIATED GMOS, MASTER SITE
- ▲ ASSOCIATED GMOS, SECONDARY SITE

Projection: World Mollweide
Last update: 25 March 2013



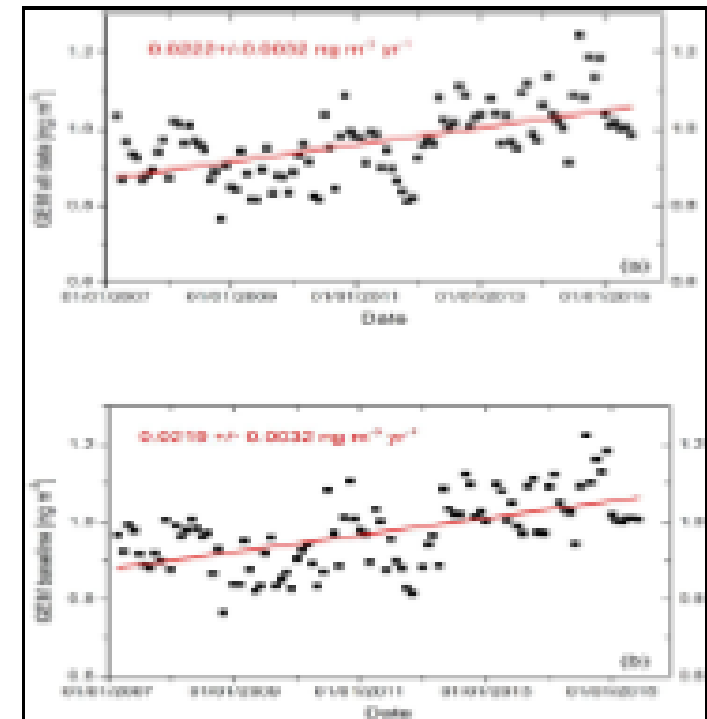
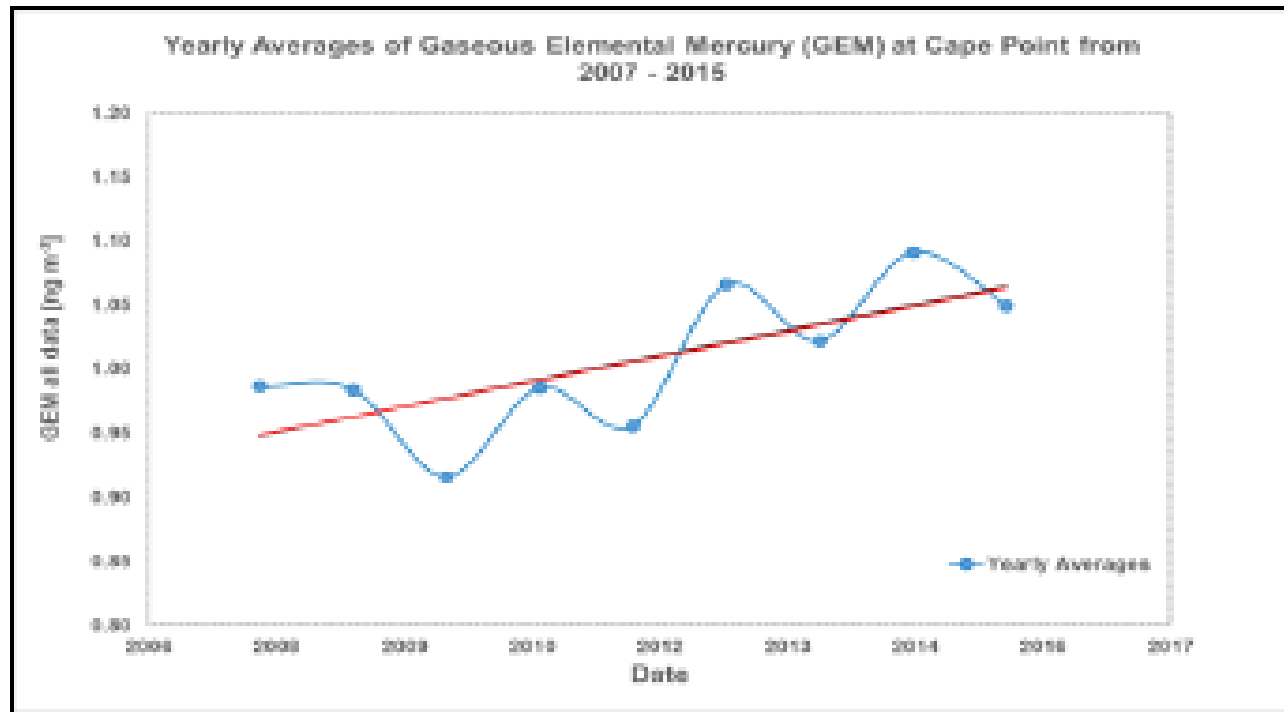
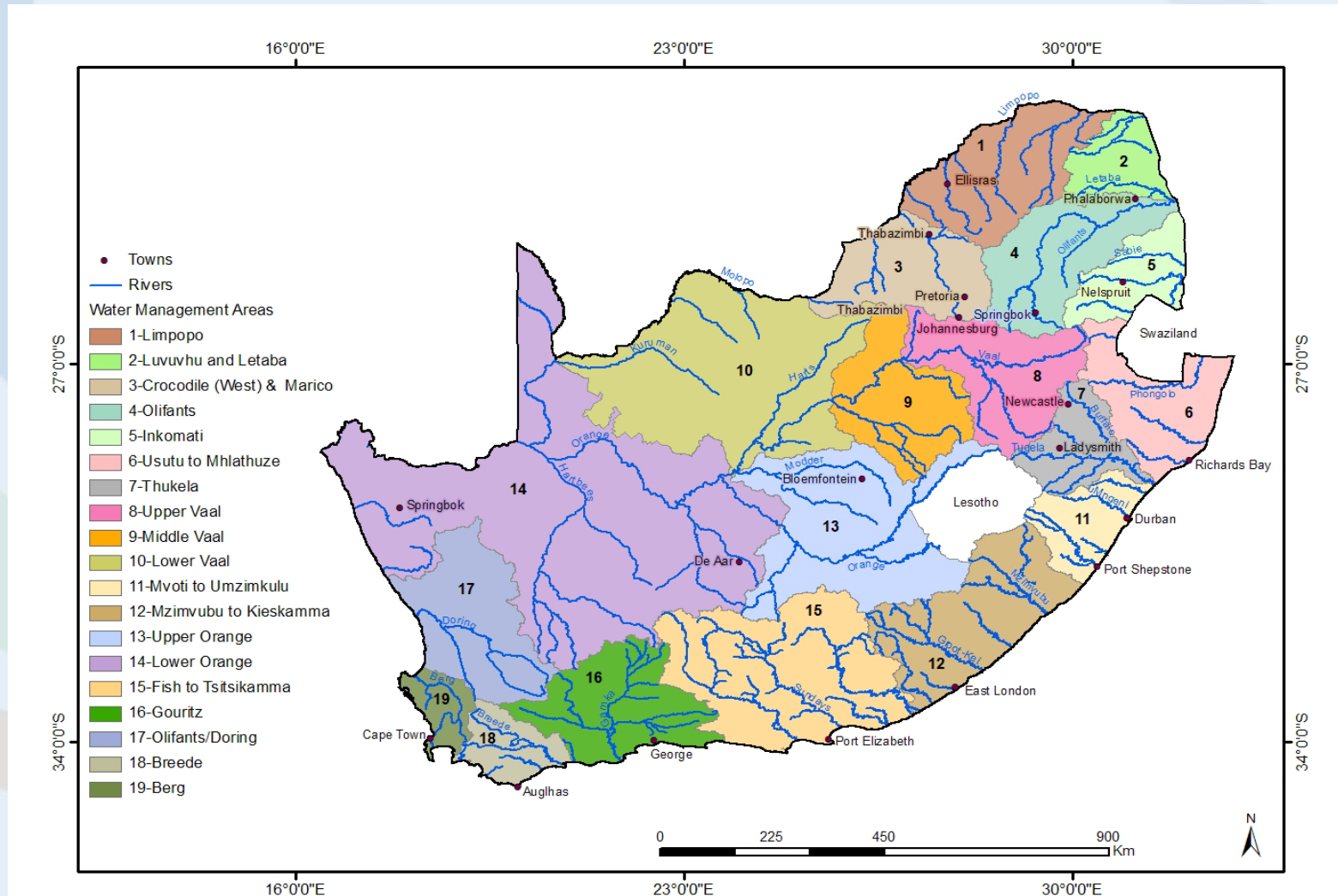


Fig. 3 (left) Yearly GEM averages 2007 – 2015 (right) monthly average GEM concentrations and their least-squares fit: upper panel – all data; lower panel – baseline data (i.e., only GEM concentrations at ^{222}Rn concentrations $\leq 250 \text{ mBqm}^{-3}$ baseline conditions). (Martin et al. 2017)

Mercury Research in SA by CSIR

- ❑ 19 WMAs
- ❑ National Survey conducted: 2007 - 2009
- ❑ Rivers close to likely Hg sources surveyed
- ❑ Get more info on state of aquatic ecosystem



Walters *et al.* (2011). *Jnl. of Environ. Sci. & Health*, A46: 1129–1137.

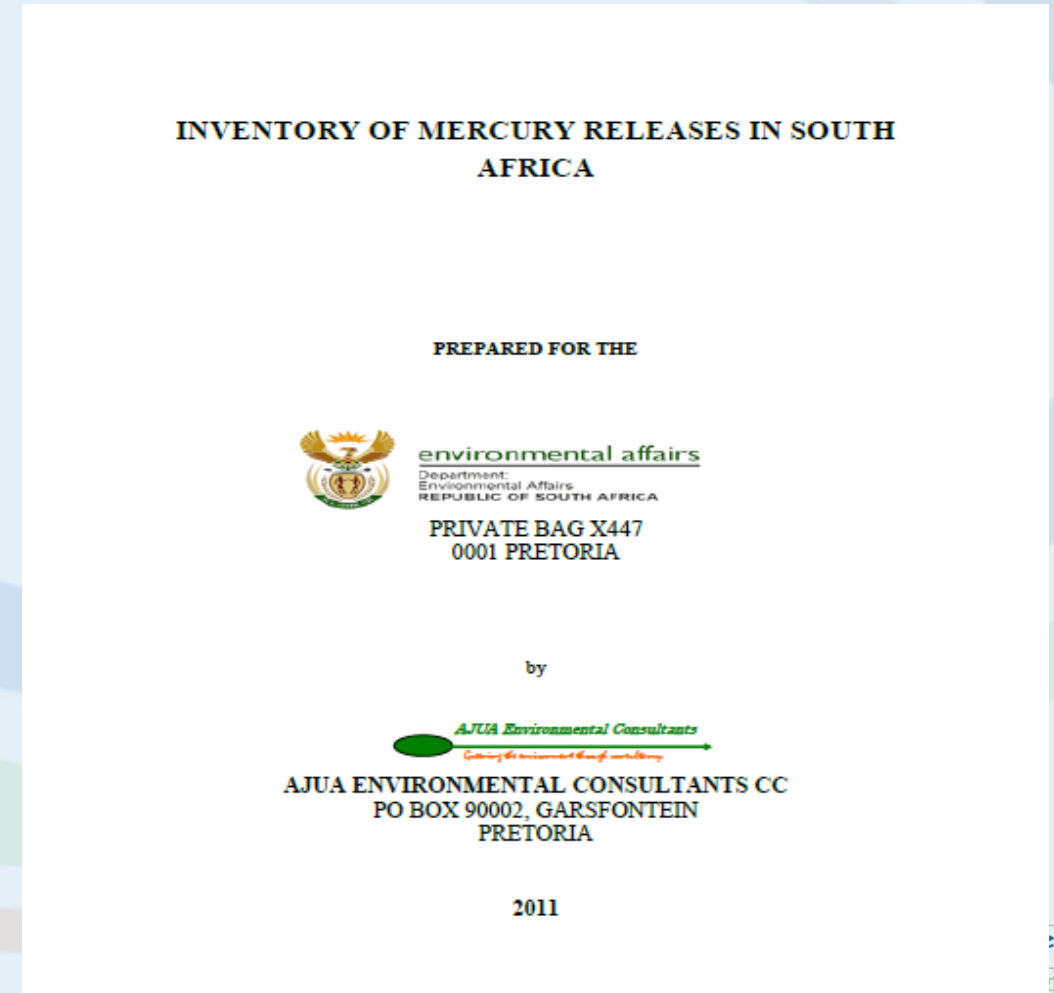
Somerses *et al.* (2011). WRC Report No.1754/1/10.

Mercury Research by National Government (DEA) as Part of Ratification process

UNEP Toolkit level 1(2011)

The mercury release calculations used in this Toolkit are based on the mass balance principle:

Give you an idea of the Hg emissions sources but **No info of Hg concentration levels in the environment which we need to know.**



State of Mercury in South African Air for 2005 – 2015

Paper prepared for:

Department of Environmental Affairs

Directorate: Atmospheric Quality Information

Paper prepared by:

Dr. Lynwill G Martin

Date: September 2017

Mercury Research by National Government (DEA) as Part of Ratification process

UNEP LEVEL 2 TOOLKIT
Final report due **Apr 2018**

MIA by the African Institute (GEF)
Oct 2016 – Sep 2018

Mercury Inventory in South Africa Using the United Nations Environmental Programme (UNEP) Toolkit Level II

Prepared For



environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Prepared By



AJUA Environmental Consultants CC
Contact person: Prof OJ Okonkwo
Tel: 082 840 9571
Email: jonathan@ajua.co.za; unomaAQ@hotmail.com

1st Draft Report UNEP Level 2 Toolkit
Sep 2017
(September 2017)



Bid Presentation



15th INTERNATIONAL CONFERENCE ON MERCURY AS A GLOBAL POLLUTANT

CAPE TOWN | SOUTH AFRICA | 11-16 JULY 2021



**15TH ICMGP coming to
CAPE TOWN | SOUTH AFRICA
11-16 JULY 2021**

Theme:

From Minamata to Africa and beyond

15th INTERNATIONAL CONFERENCE ON MERCURY AS A GLOBAL POLLUTANT

Cape Town | South Africa | 11 – 16 July 2021

Logo & Theme



Addressing Mercury challenges in Global Environmental Change

● a droplet of quicksilver, the historic name for mercury.

★ and “Cape Town” equates to the colour of the clear blue skies and oceans at the tip of Africa, the meeting place for experts to share global Hg matters.

↻ the warm Agulhas & cold Benguela currents, with directional flows from north to south and south to north, respectively, which also signifies the “north-south-north interactions” of the mercury legacy of the conference in Cape Town.

★ the location of the Global Atmospheric Watch Station at Cape Point where mercury is measured, and where tourists mistakenly think the “two oceans meet”.

Hg the element symbol for mercury is placed in the ocean, as the ocean is a sink for this ubiquitous trace metal.

Hg, “ICMGP” and “2021” represents the colour of quicksilver / mercury, for the conference to be held in 2021.

