The National Status Report on Biological Invasions

Sebataolo Rahlao – Status Report Lead

....and the team!!!
Session objectives

- Communicate the requirements for the Status report – NEM:BA and its AIS Regulations
- Discuss what should be included in the Status report
- Discuss processes for developing the First Status report due in October 2017
- Identify key role players/stakeholders for the status report
- Get inputs from the Forum on the content, structure and processes for the Status report
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Minimising threats to Biodiversity!

GBO 2006, 2014, MEA 2005
Hottest biodiversity hotspots

By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated and measures are in place to manage pathways to prevent their introduction and establishment
Invasives IMPACT

1. Stream flow reduction
Potential Loss of Biodiversity – up to a 1/4 of RSA’s plant species –

2. Biodiversity loss

Pictures: WfW
3. Increasing fire frequency & intensity!

Pictures: NRM
Interventions by SA Government

Working for Water Programme – since 1995
- Invasive alien plants were a problem
- IAP a serious threat to water resources
- 3.2 billion Rands (US$457 million) over 15 yrs
- Job creation and poverty alleviation – rural comm.
- Legislation??
Evolution of legislation to deal with AIS in SA

- **CONSTITUTION (SECTION 24)**
- **NEMA (No. 107 of 1998)**
- **NEM:BA (No. 10 of 2004)**
- **AIS Regulations & Lists, 2014**
- **SANBI – Section 10(1)**
NEMBA (Act 10 of 2004)

www.invasives.org.za

2014 Alien and Invasive Species Regulations and Lists
The Status Report

NEMBA (Act 10 of 2004) and A&IS Regulations (2014)

Section 11 (1) (a) (iii) of the Act requires that SANBI must monitor and report regularly to the Minister on the status of all listed invasive species.

A report must contain a summary and assessment of –

(a) the status of listed invasive species and other species ..........risk assessment

(b) the effectiveness of Regulations and control measures including:

(i) notifications received from landowners;
(ii) permits issued;
(iii) Invasive Species Monitoring, Control and Eradication Plans received from organs of state and management authorities of protected areas; and
(iv) emergency interventions and enforcement actions involving listed invasive species issued by the Minister.

c) The Institute must carry out the research and monitoring necessary to prepare the report
Invasive Species Categories

**Category 1a Listed Invasive Species**
- Take immediate steps to combat, or eradicate where possible.

**Category 1b Listed Invasive Species**
- Control the listed invasive species.

**Category 2 Listed Invasive Species**
- Utilization allowed under Permit conditions.
- Control outside of the Permit conditions.

**Category 3 Listed Invasive Species**
- Subject to certain prohibitions (e.g. sell)
- Category 3 plant specimens in riparian areas are treated as Category 1b.

<table>
<thead>
<tr>
<th>Type of organism</th>
<th>Invasive spp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrestrial &amp; Fresh-water plants</td>
<td>379</td>
</tr>
<tr>
<td>Marine plants</td>
<td>4</td>
</tr>
<tr>
<td>Mammals</td>
<td>41</td>
</tr>
<tr>
<td>Birds</td>
<td>24</td>
</tr>
<tr>
<td>Reptiles</td>
<td>35</td>
</tr>
<tr>
<td>Amphibians</td>
<td>7</td>
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<tr>
<td>Fishes</td>
<td>17</td>
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<tr>
<td>Invertebrates</td>
<td>47</td>
</tr>
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<td>Microbes</td>
<td>7</td>
</tr>
</tbody>
</table>
South Africa’s National Listed Invasive Species

<table>
<thead>
<tr>
<th>Page</th>
<th>Lists</th>
<th>No. of Species</th>
</tr>
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<tbody>
<tr>
<td>4</td>
<td>List 1: National List of Invasive Terrestrial and Fresh-water Plant Species</td>
<td>379</td>
</tr>
<tr>
<td>25</td>
<td>List 2: National List of Invasive Marine Plant Species</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>List 3: National List of Invasive Mammal Species</td>
<td>41</td>
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<td>List 5: National List of Invasive Reptile Species</td>
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<td>29</td>
<td>List 6: National List of Invasive Amphibian Species</td>
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<tr>
<td>30</td>
<td>List 7: National List of Invasive Fresh-water Fish Species</td>
<td>15</td>
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<tr>
<td>32</td>
<td>List 8: National List of Terrestrial Invasive Invertebrate Species</td>
<td>23</td>
</tr>
<tr>
<td>33</td>
<td>List 9: National List of Fresh-water Invertebrate Species</td>
<td>8</td>
</tr>
<tr>
<td>33</td>
<td>List 10: National List of Marine Invertebrate Species</td>
<td>16</td>
</tr>
<tr>
<td>34</td>
<td>List 11: National List of Microbial Species</td>
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## Status report – components

<table>
<thead>
<tr>
<th>Content</th>
<th>Monitoring Framework</th>
<th>Reporting System</th>
<th>Implementation &amp; Institutional Arrangements</th>
<th>Research, Communication &amp; Advocacy needs</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>e.g. Indicators</td>
<td>E.g. Datasets</td>
<td></td>
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<td></td>
<td>List of introduced species</td>
<td>e.g. REALMS Taxonomic groups Legislative Categories</td>
<td></td>
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<tr>
<td>Distributions</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
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<tr>
<td>Impact</td>
<td>xxx</td>
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<td>Pathways</td>
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**List of introduced species**
- e.g. REALMS
- Taxonomic groups
- Legislative Categories

**Distributions**
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**Impact**
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**Efficacy of Interventions**
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**Areas affected**
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**Pathways**
- xxx

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*SANBI*
Biodiversity for Life
South African National Biodiversity Institute
Three key types of Indicators

- Ecological/biotic Indicators
  - Status of invasive species

- Regulatory/compliance Indicators
  - Effectiveness of Regulations and control measures

- Process/Systems Indicators

Essential Variables for Invasion Monitoring & Reporting
A guide for countries

SANBI
Biodiversity for Life
South African National Biodiversity Institute
Proposed phased approach to Monitoring System for Biological Invasions

- Existing data collection processes
- Agreements for coordinated data flows
- Identify key role players and sectors
- Collate datasets
- Set baselines
- Set objectives and targets

Low hanging fruits

- Low hanging fruits
- Identified and collated indicators
- Streamlining government depts., entities and NGOs
- Central database of data
- Mandate mapping
- Institutional arrangements
- Etc.

System maturation

- Medium term 2018 – 2020
- Report 2

- Streamlined structures within government, private and NGOs
- Robust system
- Mandated and compulsory data collection and sharing processes
- Clear lines of communication
- Diverse reports/outputs

Fully fledged system

- Long term 2023 – n
- Report 3 – n

Short term 2016 – 2018
- Report 1
43rd Annual Symposium on the Management of Biological Invasions

• 18 – 20 May 2016 – Goudini Spar, Worcester, Western Cape

• Theme: A National Status Report on Biological Invasions in South Africa

• Special Issue of African Biodiversity and Conservation

• http://academic.sun.ac.za/cib/workshops/2016MAY/index.asp
Key questions

1. What do we **know now** about Invasives in South Africa?

2. What should be the **content** of the Status report?

3. What **mechanisms** and **systems** should we develop and/or maintain to ensure subsequent reports?

4. **Who** should be involved in the development of the Status report? ....e.g. role, level

5. Any **other key issues** we should take into account?
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