The data audit for wetlands map and mapping prioritisation

Mbona N
Flow between inventories, assessments, planning and monitoring

- **National Wetland Inventory**
  - Wetland extent
  - Wetland types
  - Flow, species etc.
    - (Accuracy assessments)

- **Assessments, e.g. NBA**
  - Priorities

- **Strategy / Plan, e.g. Conservation Plan**

- **Monitoring**
  - Fine-scale monitoring at specific points
  - Regional – national scale (remote sensing)

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National reporting requires comparable scale and methods for trend analysis

- **Fine-scale inventories Level 1- 6 of Classification System (1:50 000)**

- **Fine-scale data (1:50 000) Level 1 – 3,4 of Classification System**

- **Other project data (various scales)**

- **Modelling types and condition**

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Data rich, use as is

Hybrid data

Adopted from Driver et al 2003; Finlayson et al 2005
Table 1: Percentage surface area of inland wetlands proportional to all wetlands of South Africa.

<table>
<thead>
<tr>
<th>Wetland class Level 1:</th>
<th>Total surface area (Ha)</th>
<th>Percentage of all wetlands</th>
<th>Percentage of South Africa*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estuarine</td>
<td>165,952.8</td>
<td>5.8</td>
<td>0.1</td>
</tr>
<tr>
<td>Inland: Artificial</td>
<td>528,187.6</td>
<td>18.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Inland: Natural</td>
<td>2,152,117.9</td>
<td>75.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Total</td>
<td>2,846,258.3</td>
<td>100.0</td>
<td>2.3</td>
</tr>
</tbody>
</table>

* calculated from a shapefile totalling 122,081,147.5 Ha for the Republic of South Africa

DATA AUDIT ON WETLANDS

- Mbona et al 2015 and Van Deventer et al 2016 found that NMWv4 represented <54% of wetlands found at a fine-scale level
- Data audit / situation assessment on wetlands data


Data audit

• A full survey of available information
• Presented at NWI
• Emailed to several mailing lists
• SASAQ`s, Provincial wetland forums, Indaba mailing list, wetland portal, wetland mailing list
Method

• Which satellite \textit{imagery} was used year and spatial resolution?
• Heads-up \textit{digitising} or modelled, which scale
• Experience of the data capturer (trained wetlands ecologists, GIS personnel or interns)
• Was any \textit{desktop only or fieldwork} done
• accuracy assessment done for the project?
• wetland classification and the system used (National Wetland Classification System, Ollis 2013)
• \textit{Condition} assessment and method used
• Was any \textit{species} data collected
Results

- Spatial distribution
- Scale and method
- Typing
- Species
- Organisations responding
Preliminary results

Graph showing data distribution across different regions and types of validation:
- Eastern Cape
- Free State
- Gauteng
- KwaZulu Natal
- Limpopo
- Mpumalanga
- North West
- Northern Cape
- Western Cape

Legend:
- NFEPA only
- Desktop and GT
- Validated
- Prioritised
- Part
- Model

Pie chart indicating confidence levels:
- Poor confidence
- Medium to high confidence

Statistics not explicitly listed in the image.
Way forward

• Data report
• Priority areas
• Desktop mapping
• Field
• Data argumentation from various sources
• Thank You

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