# National Natural Capital Accounting (NCA) Strategy Stakeholder Workshop

Proceedings

Virtual event (held in the Zoom platform), 18 & 19 November 2020

# Background to this document

Statistics South Africa (Stats SA), in partnership with the South African National Biodiversity Institute (SANBI), convened a virtual workshop on 18 and 19 November 2020 to gather input from stakeholders on the draft *National Natural Capital Accounting Strategy: a ten-year strategy for advancing Natural Capital Accounting in South Africa*. This document contains a record of the proceedings of this virtual event held on 18 and 19 November 2020.

Stats SA and SANBI appreciate the support provided by:

- The **Natural Capital Accounting and Valuation of Ecosystem Services (NCAVES) Project**, funded by the EU, and led globally by the United Nations Statistics Division (UNSD) and United Nations Environment Programme (UN Environment), including the Projects' Reference Group members from the Delegation of the European Union to South Africa, UNSD, UN Environment, and Department of Environment, Forestry, and Fisheries (DEFF). The draft National NCA Strategy is an output of the NCAVES Project.
- **Members of the NCA Strategic Advisory Group** in guiding the development of the National NCA Strategy and supporting the process of development including the stakeholder workshop. Institutions represented on the NCA SAG are DEFF, Department of Planning, Monitoring and Evaluation (DPME), Department of Science and Innovation (DSI), Department of Water and Sanitation (DWS), National Business Initiative (NBI), National Treasury, South African National Parks (SANParks) and Water Research Commission (WRC)
- Individuals from a range of institutions who supported the successful execution of the workshop through planning, chairing, facilitation, note-taking and other support including (in alphabetical order by institution and surname):
    - **DEFF**: Mukondi Masithi, Tshifhiwa Munyai, Kiruben Naicker
    - **NBI**: Mmaphefo Tshwala
    - **SANBI:** Malik Dasoo, Mandy Driver, Tanya Layne, Nokuthula Mahlangu, Prideel Majiedt, Alex Marsh, Jenifer Zungu and service provider to SANBI (Patrick O'Farrell)
    - **Stats SA**: Rob Anderson, Gerhardt Bouwer, Joe de Beer, Riaan Grobler, Brenda Mphakane, Robert Parry
    - **WRC:** Michelle Hiesterman
    - **UKZN Centre for Water Resources Research (CWRR):** David Clark
    - **UN Environment**: William Speller
- Participants of the workshop from 20 institutions.
- The **Ecological Infrastructure for Water Security (EI4WS) Project**, which is funded by the Global Environment Facility (GEF), implemented by the Development Bank of Southern Africa (DBSA) and executed by SANBI in partnership with a range of private and public partners. The projects' support is most directly through funding for the NCA Project Manager (Aimee Ginsburg) in the planning, coordination and execution of the workshop, and in developing the National NCA Strategy.

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# Workshop agenda

## Wednesday 18 November: day 1

| NO | WHEN | WHAT | WHO |
|---|---|---|---|
| **1** | 9h00 | Welcome | Stats SA |
| **2** | 9h10 | Introductions and rules of engagement | Stats SA |
| **3** | 9h20 | Overview of NCA in South Africa | Stats SA |
| **4** | 9h50 | Overview of the National NCA Strategy | SANBI |
| **5** | 10h20 | Introduction to goal-based discussions in breakaway groups | Stats SA |
| | 10h30 | BREAK | |
| **6** | 10h40 | Group session 1 on goals (pre-registered goals) | Facilitator-led discussions per group |
| | 11h35 | BREAK | |
| **7** | 11h50 | Group session 2 on goals (pre-registered goals) | |
| **8** | 12h45 | Plenary brief reflective feedback | Stats SA |
| **9** | 13h00 | Close of day | |

## Thursday 19 November: day 2

| NO | WHEN | WHAT | WHO |
|---|---|---|---|
| **1** | 9h00 | Opening and recap of Day 1 | Stats SA |
| **2** | 9h10 | Gathering and reflection exercise | SANBI |
| **3** | 9h20 | Goal 1 feedback to plenary | Facilitator & participants |
| **4** | 10h00 | Goal 2 feedback to plenary | Facilitator & participants |
| **5** | 10h30 | Goal 3 feedback to plenary | Facilitator & participants |
| | 11h00 | BREAK | |
| **6** | 11h15 | Goal 4 feedback to plenary | Facilitator & participants |
| **7** | 11h45 | Goal 5 feedback to plenary | Facilitator & participants |
| **8** | 12h15 | Overarching reflections what is going to be make ‘the difference’ for successful implementation and what is your role/contribution in that? | All |
| **9** | 12h45 | Way forward for the National NCA Strategy | Stats SA |
| **10** | 12h55 | Close of workshop | Stats SA |

# Record of proceedings

## Wednesday 18 November: Day 1

### 1. Welcome

**Stats SA Chief Director: Independent Assessment Unit, Gerhardt Bouwer, was the workshop chair.** He:

- Opened the workshop.
- Introduced Statistics South Africa's Deputy Director General: Economic Statistics (Joe de Beer to give the welcome address.

**Stats SA Deputy Director General: Economic Statistics, Joe de Beer, gave the welcome address.** He:

- Introduced the purpose of the workshop and the strategy.
- Spoke to Stats SA's involvement in environmental-economic accounting over the past two decades, and the partnerships, funders and projects that have supported its advancement.
- Acknowledged the wide institutional representation on the Strategic Advisory Committee involved in the development of the National NCA Strategy.
- Thanked workshop participants for their time and involvement in this workshop.

### 2. Introductions and rules of engagement

The Chair:

- Went through the rules of engagement.
- Asked participants to write their name, title and organisation into the chat.
- Reviewed the agenda for the day.

### 3. Overview of NCA in South Africa

The Chair introduced **Stats SA's Director: Environmental Economic Accounts, Riaan Grobler**, to provide an overview of NCA and Stats SA's involvement in it over the past 20 years. Riaan Grobler provided:

- An introduction to NCA and the development of the System of Environmental-Economic Accounts (SEEA).
- A history of Stats SA's involvement in the development of NCA thus far and the partnership with SANBI around developing ecosystem accounts. He emphasized the importance of partnerships, which have involved a number of institutions already.

Refer to Appendix 1 for the presentation.

| Clarifying questions | Responses |
|---|---|
| What the value is of NCA in the System for National Accounts (SNA). How can the system of national accounts be used to contain information on ecosystems and natural capital? What is the destination of the SNA in terms of its role in Treasury and other government departments? | Riaan Grobler: NCA in South Africa is primarily being done in biophysical terms and pilot work is being done on monetary valuation through the NCAVES Project. The SEEA enables the linkage between NCA in monetary terms with the core national accounts of the country (GDP and supply and use tables) using the System of National Accounts. It was mentioned that there is still a lot of work to be done on this. |
| | Gerhardt Bouwer: Added that the SNA only looks at economic activity on behalf of residents of a country, which includes people |

| Clarifying questions | Responses |
|---|---|
| | living abroad. Environmental Economic Accounts, however, are more country specific. |
| Is there a way to measure ecosystem 'fragmentation' or is this covered under ecosystem extent? | Aimee Ginsburg: The ecosystem extent accounts for terrestrial ecosystems have not included a measure of ecosystem fragmentation. There are, however, examples of this being done in other countries and there are ways for building it into work in the future.<br>William Speller: Added that in some other countries, ecosystem fragmentation has been used as a condition indicator (e.g. India). |
| What indicators are available to measure ecosystem quality? | Aimee Ginsburg: The land and terrestrial ecosystem accounts are extent accounts. Data were not available to do condition accounts. The next step would be to create condition accounts for terrestrial ecosystems and other realms. An ecosystem condition index exists and has been used in river accounts. She mentioned that CSIR has developed Experimental Ecosystem Accounts for South Africa's Estuaries that include extent, condition and ecosystem services accounts and that SANBI's Marine Programme is developing accounts for marine ecosystems that should include condition accounts. |
| There was a large emphasis on the SEEA framework and the oceans account framework has done minor tweaks to the SEEA to make it more ocean and aquatic ecosystem-friendly. Has there been any high-level engagement with the oceans accounting framework? | Riaan Grobler: The NCA PMU have engaged with Ken Findlay. Prideel Madjiet also confirmed that SANBI have engaged with the Ocean Accounts Framework. |
| Will the Oceans Accounting for oceans and coast be formally adopted moving forward? | Prideel Madjiet: To her knowledge, it had not been discussed at a department level but that Oceans and Coasts secretariat is aware of it. |
| Is funding and the role of funders just an operational issue or should it be a part of a goal in the strategy? | It is part of Goal 5. |

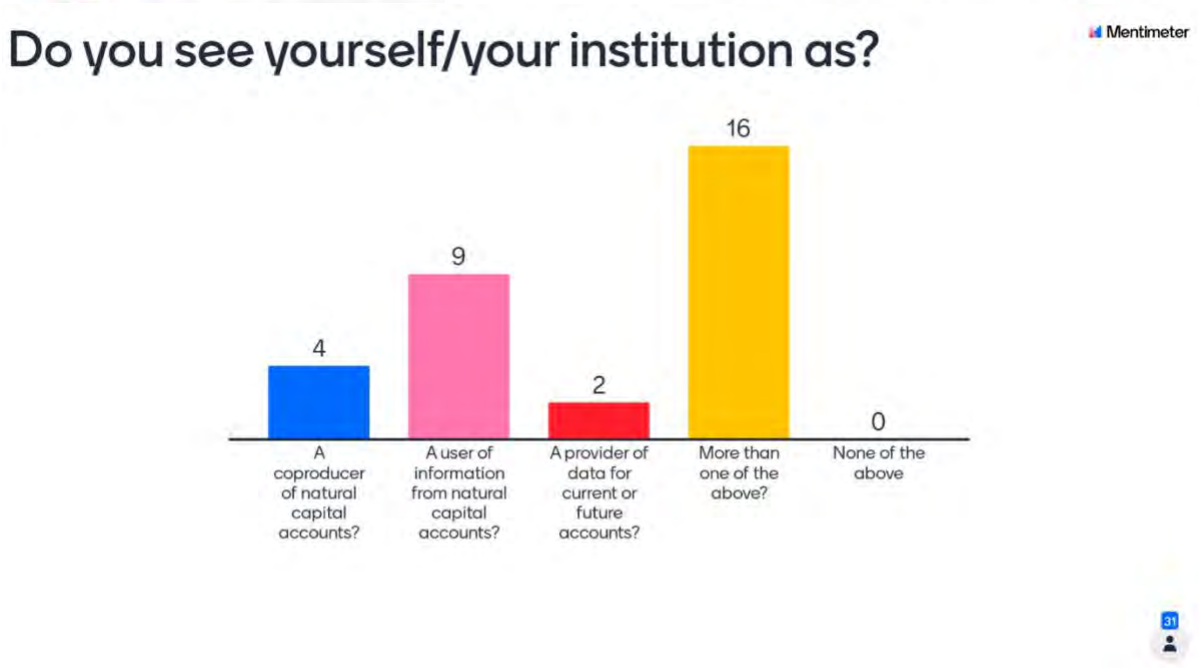
## 4. Overview of the National NCA Strategy

The Chair introduced **SANBI NCA: Project Manager, Aimee Ginsburg**, to provide an overview of the National NCA Strategy. She covered:

- The purpose of the strategy and what it offers.
- The NCA value chain and how the strategy supports it.
- How the strategy was developed.
- The levers of change and an overview and orientation of the goals
- An explanation into the purpose and process of the goal-based discussion.

A Mentimeter polling question was presented asking participants what role they see themselves or their institutions as. Results can be seen in Figure 1. Bar chart showing results of participants identification as role players in national NCA strategy

**Figure 1. Bar chart showing results of participants identification as role players in national NCA strategy**




Refer to Appendix 2 for the presentation.

| Clarifying questions | Responses |
|---|---|
| **Comment made that the strategy is quite a deliberate and slow process, which deepens engagement.** | This should be written up as lessons which can be learned from this. The process could be used as a case study that can be captured for the Ecological Infrastructure for Water Security. |

## 5. Introduction to goal-based discussions in breakaway groups

The Chair introduced the goal-based discussions that would take place in five breakaway groups. He:

- Covered the purpose of the breakout groups.
- Explained that both sessions would last approximately 50 minutes with a 15 minute break between them.
- Presented the facilitation teams for each goal (see Table 1).

**Table 1. Members of the facilitation teams per goal-based discussion**

| Goal and short description | | Facilitator | Strategy support | Note takers |
|---|---|---|---|---|
| Goal 1 | NCA is widely used | Mukondi Masithi, DEFF | Gerhardt Bouwer | Tshifhiwa Munyai, DEFF |
| Goal 2 | NCA offers credible evidence | Prideel Majiedt, SANBI | Kiruben Naicker, DEFF | Thuli Mahlangu, SANBI |
| Goal 3 | Integrated suite of accounts | Riaan Grobler, Stats SA | David Clark, UKZN CWRR | Jenifer Zungu, SANBI Patrick O'Farrel |
| Goal 4 | Capacity and data | Michelle Hiesterman, WRC | Rob Anderson, Stats SA | Brenda Mphakane, Stats SA |
| Goal 5 | Resources and collaboration | Mmaphefo Tshwala, NBI | Robert Parry, Stats SA | William Speller, UN Environment |

Refer to Appendix 3 for the presentation.

## 6. Group sessions on goals

Participants were moved into the goal-based discussion groups for which they had pre-registered. The results of these discussions were captured by the note-takers and was fed back in plenary on Day 2 of the workshop. The inputs will be integrated into the updated National NCA Strategy document.

## 7. Plenary brief reflective feedback

The Chair thanked participants for their inputs. Aimee Ginsburg presented a Mentimeter poll which asked participants to enter a word that described the quality of the conversation. Results can be seen in Figure 2. Word cloud illustrating the responses from participants about the quality of conversation of breakout sessions

**Figure 2. Word cloud illustrating the responses from participants about the quality of conversation of breakout sessions**


The facilitator of each session was asked to give a brief description of how they felt the group discussions went. These were:

1. Goal 1, Mukondi Masithi stated that although there were only two participants in the second session, the conversation was highly engaged and interesting. Time was limited in the second session.
2. Goal 2, Prideel Madjiedt mentioned that people in both sessions were very engaged with the content of the strategy. As a result of this, the conversation moved into the topic of implementation, who should be involved and how the different types of accounts relate to each other. Time was also a constraint during the second session.
3. Goal 3, Riaan Grobler mentioned that the discussion was productive. It was suggested that there were not many people who chose goal 3 despite its importance. Time was mentioned as a constraint. The first strategic objective was completed but only the first two outputs of the second objective were addressed.

4. Goal 4, Michelle Hiesterman mentioned that the discussions went well. There was benefit in having experts look at the strategy and provide their guidance especially outside of just a document review format.
5. Goal 5, Mmaphefo Thwala mentioned that the discussion was very productive. Inputs assisted with the framing of activities and identifying role players. One highlight was that there was a lot of interest in how the accounts will be prioritised in terms of their funding and implementation. It was also mentioned that there would need to be assistance with the harvesting of stories that are coming out as well as the knowledge management. Michelle was mentioned as someone who could assist in this. In session two, the conversation was productive and the issue of monitoring was raised and how this will be done over time.

### 8. Close of day

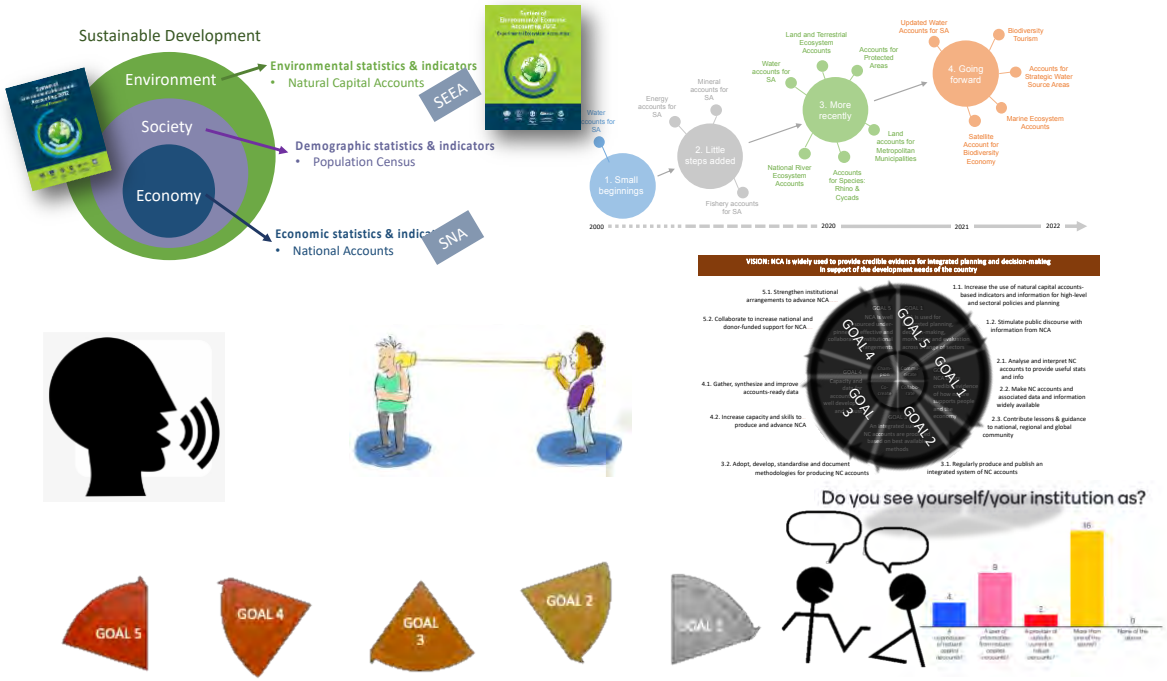
The Chair thanked participants for their inputs. He reminded participants of the agenda for the second day and that comments on the Strategy could still be sent via email to Robert Parry from Stats SA.

## Thursday 19 November: Day 2

### 1. Opening and recap of Day 1

**The workshop Chair, Stats SA Chief Director: Independent Assessment Unit, Gerhardt Bouwer,** presented an overview of the topics discussed on day 1 (depicted in Figure 3).

**Figure 3. Pictorial depiction of the overview of day 1 of the stakeholder workshop on the National NCA Strategy**




He highlighted that:

- Feedback at the end of the day on the quality of conversation reflected a largely positive picture of productive, insightful, engaging and interesting conversation, but also that the break outs were quite short in some cases and there was a sense of fragmentation.
- Day 2 would provide a chance for further engagement with all the goals.
- For those who were not in day 1 sessions, the thing to adjust to is the amount of detail that you will be presented with.
- Mukondi Masithi made an excellent point in reflection yesterday afternoon (being 18 Nov 2020), which was that this is a Strategy document. It is NOT an implementation plan. The purpose of including indicative activities, funding scenario, key role players etc is so that we get to the texture of what implementation will look like and where it might focus. But it is foremost a Strategy document that should make clear it's vision, goals, Strategic Objectives, and Outputs it seeks to achieve.

## 2. Gathering and reflection exercise

**The Chair introduced SANBI GIS Specialist in Ecosystem Accounts, Nokuthula Mahlangu, to lead a gathering and reflection exercise.**

Participants were divided into breakout rooms of three to four people each. They were asked to share their name, organisation and a connection or an insight that is sitting with them from 18 November 2020 that is valuable in their work. If they were not in the workshop on 18 November 2020, participants were asked to share what their interest in NCA is and how they think it might connect to their work.

On returning to plenary, participants were asked to write into the chat the connections or insights that resonated with them from day 1. Results were gathered in the chat and are captured in the table below.

| A connection or insight about the value of NCA to your work |
|---|
| Role of data science |
| Importance of NCA to the country |
| Taking NCA forward will require adaptive management approach (learning by doing) |
| The importance of continuous funding in addition to project funding. Linking the role of NCA in the Build Back Better narrative |
| Skills in convening and sustaining communities are important for everyone |
| Interconnections between goals |
| Ensure time and space for collaboration as details are worked out |
| Collaboration and alignment |
| Need for collaboration when bidding for funding |
| If the idea is that NCA be used in policy, there needs to be an emphasis on data use (how often it is used, what it is used for and who uses it) |
| Large interest from various organizations willing to contribute to NCA |
| Stakeholder collaboration is key for other accounts (water accounts for example) |
| Importance for a flow of data and need for communicating/framing the results |
| NCA will lead to partnerships that will strengthen the importance of SEEA |
| The NCA forum should be used to broaden the contributions of what NCA work is already taking place in SA |
| There was a large focus on implementation of the strategy highlighting peoples' eagerness to actioning it |
| National departments are key stakeholders especially with regards to their role as data providers for NCA |
| Having a set standard for data vetting, use and analysis that is applied across all institutions using NCA terrestrial and marine realms |

| |
|---|
| The effective use of existing data and work rather than starting fresh each time. This provides scope for collaboration and sharing |
| The need for public-private partnerships has never been greater |
| Accessibility and availability of NCA data |
| Use of uniform standards and adherence to specific quality criteria are critical |
| The need for linking SDGs to NCA for ecosystems and services |
| Capacity building on how to apply agreed standards in the management of datasets is also critical. |
| Support to meet quality data requirements for different accounts as prescribed by Stats SA |

## 3. Goal 1 feedback to plenary

**SANBI NCA: Project Manager, Aimee Ginsburg** presented an overview of the results from the previous day's discussion. Goal 1 is that *NCA is used for integrated planning, decision-making, monitoring and evaluation across a range of sectors*. She emphasized that Goal 1 is about uptake and application of the NCA offer (which is developed in Goal 2) and understanding the user's needs. This is why developing value propositions is part of the indicative activities under this Goal. There was general agreement on the outputs and activities in Goal 2.

In response to comments on the presentation of strategic objectives and outputs, with indicative activities that would support these, she presented a slightly different way of presenting these. See Table 2 below.

**Table 2. Presentation of Goal 1 strategic objectives and outputs, with indicative activities**

| | | | | |
|---|---|---|---|---|
| Strategic objective | **1.1. Increase the use of natural capital accounts-based indicators and information** for high-level and sectoral policies and planning | | | |
| Outputs | **1.1.1. Evidence of strategic engagements and dialogues** | **1.1.2. NCA value proposition** statement for public sector developed | **1.1.3. NCA value proposition statement** for private sector developed | **1.1.4. Monitor and report on uptake and use of NC accounts** |
| Indicative activities | ☐ Strategic engagements<br>☐ Dialogues | ☐ Dialogue with key users<br>☐ Organise info sharing events<br>☐ Include indicators on SA Env online platform<br>☐ Explore use in trade off analysis & scenario making<br>☐ Explore use as a tool to inform policy and planning e.g. MTSF<br>☐ Explore links with NT budget transparency programme<br>☐ **Develop a value proposition statement** | ☐ Organise info sharing events<br>☐ Explore how NCA can be used by private sector and how private sector can support it<br>☐ Explore use in assessment of risk, opportunities, and financial exposure (financial sector, all commercial entities)<br>☐ Explore use in trade-off or scenario analysis, forecasting, and footprint measures<br>☐ **Develop a value proposition statement** | ☐ Track use of NCA publications and indicators in the IIF that draw information from natural capital accounts<br>☐ Value creation evaluation<br>☐ Data downloads |

| Strategic objective | 1.2. **Stimulate public discourse** with information from NCA | | |
|---|---|---|---|
| Outputs | **1.2.1. Opportunities created and used** to share information from natural capital accounts | **1.2.2. Present material** to enable discourse and sharing at relevant participatory events | 1.2.3. Information and products **disseminated** |
| Indicative activities | ☐ Work with Stats SA comms to share info<br>☐ Create standing agenda on annual State of Environment Report CoP<br>☐ Develop and roll out comms plan for stimulating discourse | ☐ Develop key messages<br>☐ Promote NCA literacy<br>☐ NCA presentations = broader outreach<br>☐ Present at regional events in Africa<br>☐ Make presentations and inputs on NCA at international deliberation/negotiations | ☐ Regularly develop information<br>☐ Maintain updated website info<br>☐ Explore ways to include NCA information in interactive and online dissemination platforms and tools maintained by Stats SA<br>☐ Maintain a list of NCA stakeholders<br>☐ Send a bi-annual email update. |

## 4. Goal 2 feedback to plenary

Prideel Majiedt presented an overview of the results from the previous day's discussion. This included:

- There was general agreement on the outputs and activities in Goal 2.
- There were general comments that the goals and activities within Goal 2 should speak explicitly to how they relate to the goals and activities of other Goals.
- It was mentioned that there is a lack of clarity on what energy accounts would cover.
- It was suggested that a mapping of the stakeholders and role players involved in Goal 2 would be useful.

| **Discussion in plenary:** |
|---|
| The energy accounts are developed using the energy balance from the Department of Energy. It includes different energy commodities (coal, crude oil, petroleum products, solar, geothermal, nuclear hydro and gas are some examples). Using supply and use tables, one is able to determine how much energy was produced by those commodities, how much was consumed and how much was lost in distribution |
| There was a question about how to put in place measures to ensure that information from accounts is not misrepresented, misinterpreted or misused. |
| There was a suggestion to add the distribution of data in a spatial format as well as in spreadsheets in strategic objective 2.2.1.1. |
| There was a suggestion to add academic institutions to the list of key role players. |
| There was a suggestion for stronger integration of different types of accounts from different sources. The combination of different accounts could be used in making statements about bigger issues |
| There was a point made on the linkage/integration of different types of accounts and demonstrating their use which speaks to activity 2.1.1.12. An example of mining-related accounts was cited to highlight the usefulness of combining spatial information with the amount extracted by mining. This could then be linked with other spatially explicit ecosystem accounts, water accounts etc. |

## 5. Goal 3 feedback to plenary

Riaan Grobler presented an overview of the results from the discussion on 18 November 2020. In general the group participating in Goal 3 felt the entire strategy was comprehensive in its current form and that nothing is missing. There was a suggestion that there needs to be more emphasis that the entire strategy hinges on Goal 3.

Riaan spoke to the role of different potential stakeholders as data providers (particularly those involved in energy and water accounts). There was a recommendation to include role players outside of national departments (universities, non-profits, companies etc.).

| **Discussion in plenary:** |
|---|
| Is there a way of identifying what constitutes an integrated suite of NCAs? |
| Are there any thematic areas of accounts missing from the strategic objective 3.1? No suggestions of additional thematic areas were made. |
| Is there a UN list of themes to be covered by accounts? |
| Suggestion that priorities be identified for national big-picture issues and then to map out how natural capital accounts may provide for them. Example given of the issue of water security and information from NCA related to the topics of energy, ecosystems and mining, which would help with the goal of integration. |
| Estuaries are accounts that should be considered further due to their overlap between terrestrial and marine realms. |
| Important to understand the links among different accounting frameworks and methods. Principles and indicators from different frameworks may be the same or similar and it is therefore important to use methods that are most appropriate for each context provided their alignment is understood |

## 6. Goal 4 feedback to plenary

Michelle Hiesterman presented an overview of the results from discussion on 18 November 2020. There was a general recommendation that it would be very important that the producers of accounts work very closely with data providers and support the development of a data library.

| **Discussion in plenary:** |
|---|
| Important to keep in mind that the data requirements attempt to set standards and prescripts for data that is used in accounts rather than data that is disseminated from the creation of accounts. |
| Capacity-building in how to apply agreed standards in datasets is critical. There may also be a need to map out the stakeholders that are involved in capacity development as it was mentioned in goal 1,2,3 and 4. |
| There was a suggestion that the technology (especially GIS) being used needs to be carefully considered when developing accounts. Different software systems are used by different institutions and have different implications and challenges. |
| SAEON placed emphasis on the importance of data definitions in the technological interoperability of datasets coming together. Datasets can then be linked through a vocabulary of key words to make it easy to pull data from where it is to where it needs to go. Data, maps and visualisation systems can then be drawn from for aggregated/disaggregated information for the public.<br>It was suggested that GMET be explored to use and that these systems be put in place early on so that information can be carefully used throughout a project.<br>It was suggested that an application programming interface be developed to link metadata through developed vocabularies and will assist in the integration of NCA into online spatial visualizations and tools<br>SAEON will be included as a key role players for the activities contained in goal 4. |
| There was discussion about the difference between politically and ecologically-defined boundaries for defining ecosystem accounting areas.<br>There needs to be engagement with policy-makers about how ecosystems are defined, particularly under the Coastal Management Act. |

| Discussion in plenary: |
| --- |
| SDG reporting advocates for bridging tables to highlight the difference between legal/official definition of ecosystems/assets and real-world change. Bridging tables may be a good starting point to report on both to understand changes. |

## 7. Goal 5 feedback to plenary

Mmaphefo Thwala presented an overview of the results from the discussion on 18 November 2020. There was consensus on the strategy being comprehensive. The discussion included:

- Increasing the list of key role players.
- Placing more emphasis on private-public partnerships.
- Being more explicit in reference to funding opportunities – with suggestions being to prioritise NCA accounts data to be funded and differentiate between low res and high-res.
- Ecological infrastructure should be viewed as infrastructure and prioritized accordingly for funding
- There was quite a bit of discussion around funding sources. NCA needs to looked at as a having a need for continuous funding, as an ongoing initiative funded by government, because of the usefulness of accounts for all line ministries. Funding sources can be linked to accounts e.g. Climate finance.

The importance of recognizing the success of the accounts that have been developed and using them to inform the process of building other accounts was highlighted. Collaboration is very important especially in the process of 'building back better' post COVID.

## 8. Overarching reflections

The Chair led discussion in the session on overarching reflections, asking for reflection on what is going to make the difference for successful implementation and what the different institutions role or contribution might be. Contributions are captured in the table below.

| Responses |
| --- |
| Will Speller (UN Environment) noted that demonstrating the links to policy would be useful to make the development of accounts demand driven. The example of China's gross ecosystem product was cited to show how this work becomes embedded in policy work. Ecological redlines were also cited to show how ecosystem services get embedded into policy planning. He added information on how to link NCA development to global themes like the UN decade of restoration, which shows demand for case studies on restoration that can be measured and demonstrated in an effective way. Another example given was the 2020 post Covid agenda. There is a lot that South Africa is doing and still can do to showcase success of the accounts to the rest of the world. This is where Will sees his role to support this. |
| Kiruben Naicker (DEFF) mentioned that his role overlaps slightly with Will Speller. Kiruben mentioned that although good work is being done, it needs to be taken to policy makers. This links to Goal 1 and 5, which seek to demonstrate results to funders and decision-makers. The goal cycle is well-done because policymakers can come in and mobilise resources for NCA development. Developing principles of co-creation is fundamental for NCA development and are well-reflected throughout the goals. We should not underestimate the role of enthusiasm and optimism in SA, which comes from community of practice and it needs to be taken up by champions of NCA work. |
| Michelle Hiesterman (WRC) raised the importance of building on a community of practice. When doing so, one asks for participants to commit time and energy and one most importantly want to see an increasing sense of identity. This workshop provides a good example of how best to do that. Next step is to identify how NCA is affecting decisions and how It is being applied across sectors, which will help in identifying institutional challenges to the uptake of NCA. |

| |
|---|
| Aimee Ginsburg (SANBI) reflected on the value of having developed relationships through working together (working slow enough). Building relationships and capacity is a social process that must be given time, and cautioned that that be built into how we work in implementing the strategy. The key will be to figure out how to work slowly together and to work out who other stakeholders are beyond immediate circles so that work does not get constrained by current capacity and we expand and sustain NCA work. |
| Gerhardt Bouwer (Stats SA) spoke to the importance of building partnerships and building stronger networks for communication. There is also a need to work closely with social and economic statistics to dispel the idea that this community only works with the environment to highlight the interlinkages with social and economic pillars of statistics. |
| Erika Brown (SAEON and Nelson Mandela University) mentioned that, as a representative in the community of practice on WP2 via SAEON and NMU, her role will be to drive the development of Ocean Accounts Framework in Algoa Bay as a case study of how to integrate SEEA and NCA in the marine, coastal and offshore realms. |

Participants were asked to respond to two Mentimeter polling questions. The results are given in Figure 4 and Figure 5. Word cloud illustrating words participants used to describe how they feel about the strategy

**Figure 4. A chart illustrating participants' responses to whether and how they will provide inputs and ideas to the Strategy.**

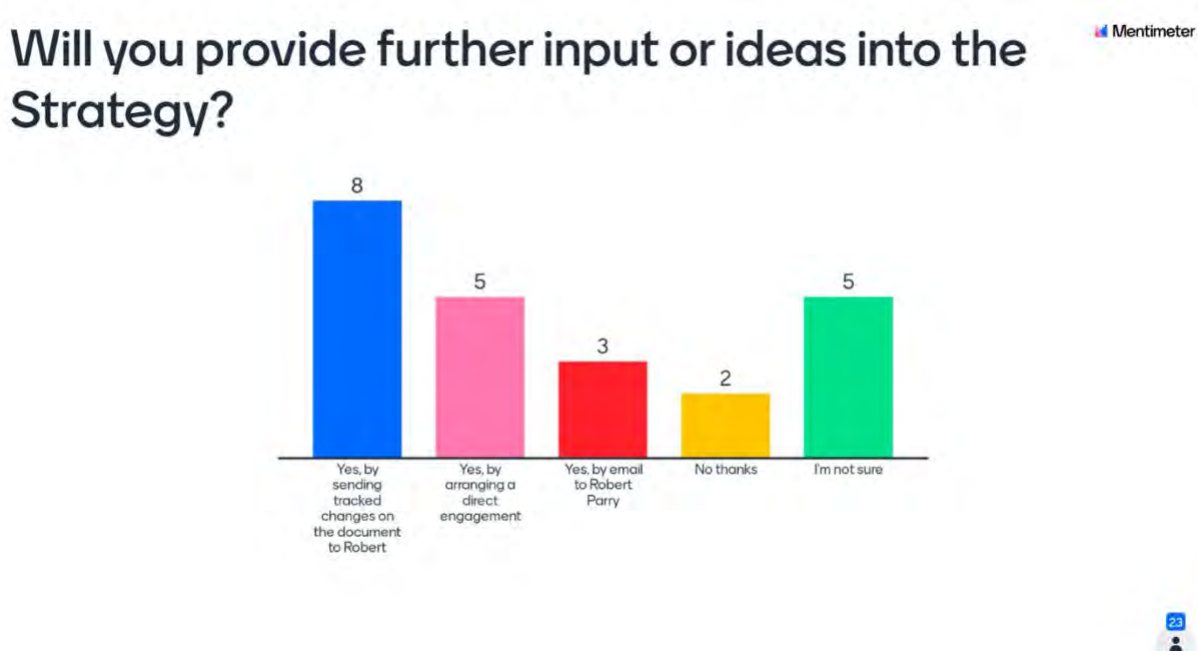



**Figure 5. Word cloud illustrating words participants used to describe how they feel about the strategy**

Mentimeter

Give a word for how you feel about the Strategy


## 9. Way forward for national NCA strategy

The Chair went through the way forward for the National NCA Strategy. Refer to **Appendix 4** for the presentation. It was emphasized that:

- Additions to the strategy can still be made until the 30th of November 2020.
- Additional comments should be sent to Robert Parry from Stats SA RobertP@statssa.gov.za).
- *Land and Terrestrial Ecosystems Accounts, 1990 to 2014* discussion document will be released on the 2nd of December 2020 at 13h00 on the Stats SA website (www.statssa.gov.za), which is the first publication in Stats SA's Natural Capital series.

# National NCA Strategy Stakeholder Workshop, 18-19 November 2020



## Workshop participants

### Virtual group photo taken on Day 2

# National NCA Strategy Stakeholder Workshop, 18-19 November 2020

## List of participants for both days

| Number | Name | Organization | 18-Nov-20 | 19-Nov-20 |
|---|---|---|---|---|
| 1 | Aimee Ginsburg | South African National Biodiversity Institute | Yes | Yes |
| 2 | Amelia Hilgart | South African Environmental Observation Network (SAEON) | Yes | Yes |
| 3 | Barney Kgope | Department of Environment, Forestry & Fisheries | Yes | |
| 4 | Brenda Mphakane | Statistics South Africa | Yes | Yes |
| 5 | Cecilia Njenga | UN Environment Programme | Yes | |
| 6 | David Clark | Centre for Water Resources Research, University of KwaZulu-Natal | Yes | Yes |
| 7 | Elijah Mogakabe | Department of Water and Sanitation | Yes | Yes |
| 8 | Erika Brown | SAEON and Nelson Mandela University | Yes | Yes |
| 9 | Flora Mokgohloa | Department of Environment, Forestry & Fisheries | Yes | |
| 10 | Galaletsang Keebine | South African Environmental Observation Network (SAEON) | Yes | |
| 11 | Gerhardt Bouwer | Statistics South Africa | Yes | Yes |
| 12 | Gwen Gosney | TCTA | Yes | |
| 13 | Jackie Jay | Department of Water and Sanitation | Yes | Yes |
| 14 | Jane Turpie | Anchor Environmental Consultants | | Yes |
| 15 | Jenifer Zungu | South African National Biodiversity Institute | Yes | |
| 16 | Jo Douwes | eThekwini Municipality | **Yes** | |
| 17 | Joe de Beer | Statistics South Africa | Yes | |
| 18 | Kiruben Naicker | Department of Environment, Forestry & Fisheries | Yes | Yes |
| 19 | Lara Van Niekerk | Council for Scientific and Industrial Research (CSIR) | Yes | Yes |
| 20 | Lebogang Matlala | Department of Water and Sanitation | Yes | |
| 21 | Malik Dasoo | South African National Biodiversity Institute | Yes | Yes |
| 22 | Mark Thompson | GeoTerraImage | Yes | |
| 23 | Michelle Hiestermann | Water Research Commission | Yes | Yes |
| 24 | Mmaphefo Thwala | National Business Initiative | Yes | Yes |
| 25 | Mukondi Masithi | Department of Environment, Forestry & Fisheries | Yes | |
| 26 | Nancy Job | South African National Biodiversity Institute | Yes | Yes |
| 27 | Nanda Nzimande | Department of Environment, Forestry & Fisheries | Yes | |
| 28 | Ndileka Mohapi | Department of Water and Sanitation | Yes | |
| 29 | Nicole du Plessis | South African Environmental Observation Network (SAEON) | Yes | Yes |
| 30 | Nnini Tsiu | Department of Planning, Monitoring and Evaluation (DPME) | Yes | |


# National NCA Strategy Stakeholder Workshop, 18-19 November 2020


| Number | Name | Organization | 18-Nov-20 | 19-Nov-20 |
|---|---|---|---|---|
| **31** | Ntombovuyo Madlokazi | Department of Environment, Forestry & Fisheries | Yes | Yes |
| **32** | Ntsako Bila | Department of Environment, Forestry & Fisheries | Yes | |
| **33** | Patrick O'Farrell | Independent consultant | Yes | Yes |
| **34** | Precious Nokuthula Mahlangu | South African National Biodiversity Institute | Yes | Yes |
| **35** | Prideel Majiedt | South African National Biodiversity Institute | Yes | Yes |
| **36** | Riaan Grobler | Statistics South Africa | Yes | Yes |
| **37** | Rob Anderson | Statistics South Africa | Yes | Yes |
| **38** | Robert Parry | Statistics South Africa | Yes | Yes |
| **39** | Ruud Jansen | Gaborone Declaration / Conservation International | Yes | |
| **40** | Sarah Polonsky | Department of Environment, Forestry & Fisheries | Yes | |
| **41** | Stephan Veldsman | Gauteng Department of Agriculture and Rural Development | Yes | |
| **42** | Susan Taljaard | CSIR | Yes | Yes |
| **43** | Thomas van Viegen | NCFA / EARTH.INC | Yes | |
| **44** | Tshifhiwa Munyai | Department of Environment, Forestry & Fisheries | Yes | |
| **45** | Vutivi Judith Vukeya | Department of Environment, Forestry & Fisheries | Yes | Yes |
| **46** | Wandile Nomquphu | Water Research Commission | Yes | |
| **47** | Willem Prinsloo | Cashan Environmental Services | Yes | |
| **48** | William Speller | UN Environment Programme | Yes | Yes |
| **49** | Yuval Tchetchik | Department of Environment, Forestry & Fisheries | Yes | Yes |
| **50** | Jabu Sithole | eThekwini Municipality | Yes | Yes |

# Appendix 1. Natural Capital Accounting for South Africa

Appendix 1

# Natural Capital Accounting for South Africa


## Riaan Grobler

## Director: Environmental Economic Accounts


NCA National Workshop

18 November 2020


stats sa

Department:
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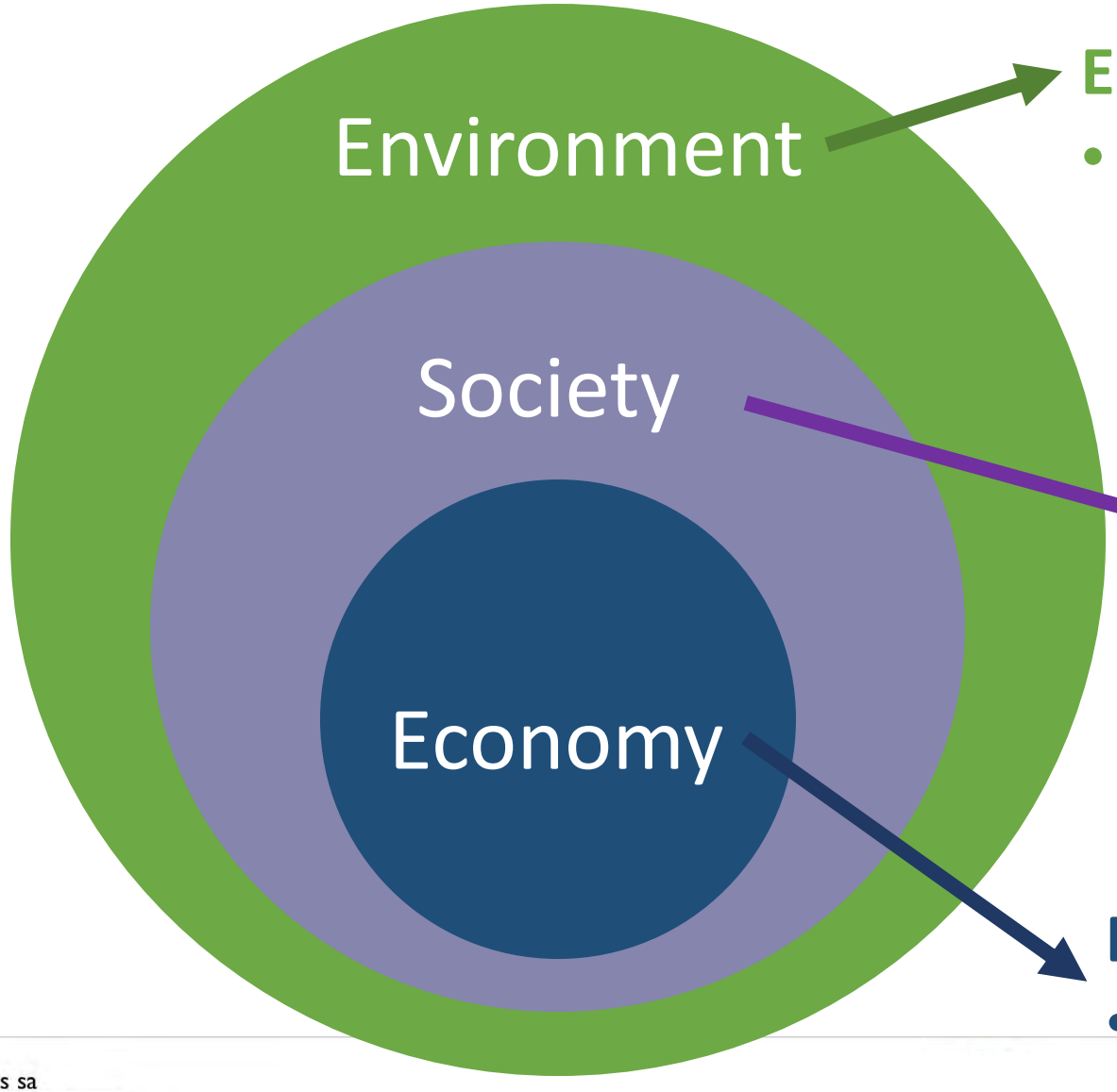
SANBI
Biodiversity for Life
South African National Biodiversity Institute

# Sustainable Development




**Environmental statistics & indicators**

- Natural Capital Accounts

SEEA

**Demographic statistics & indicators**

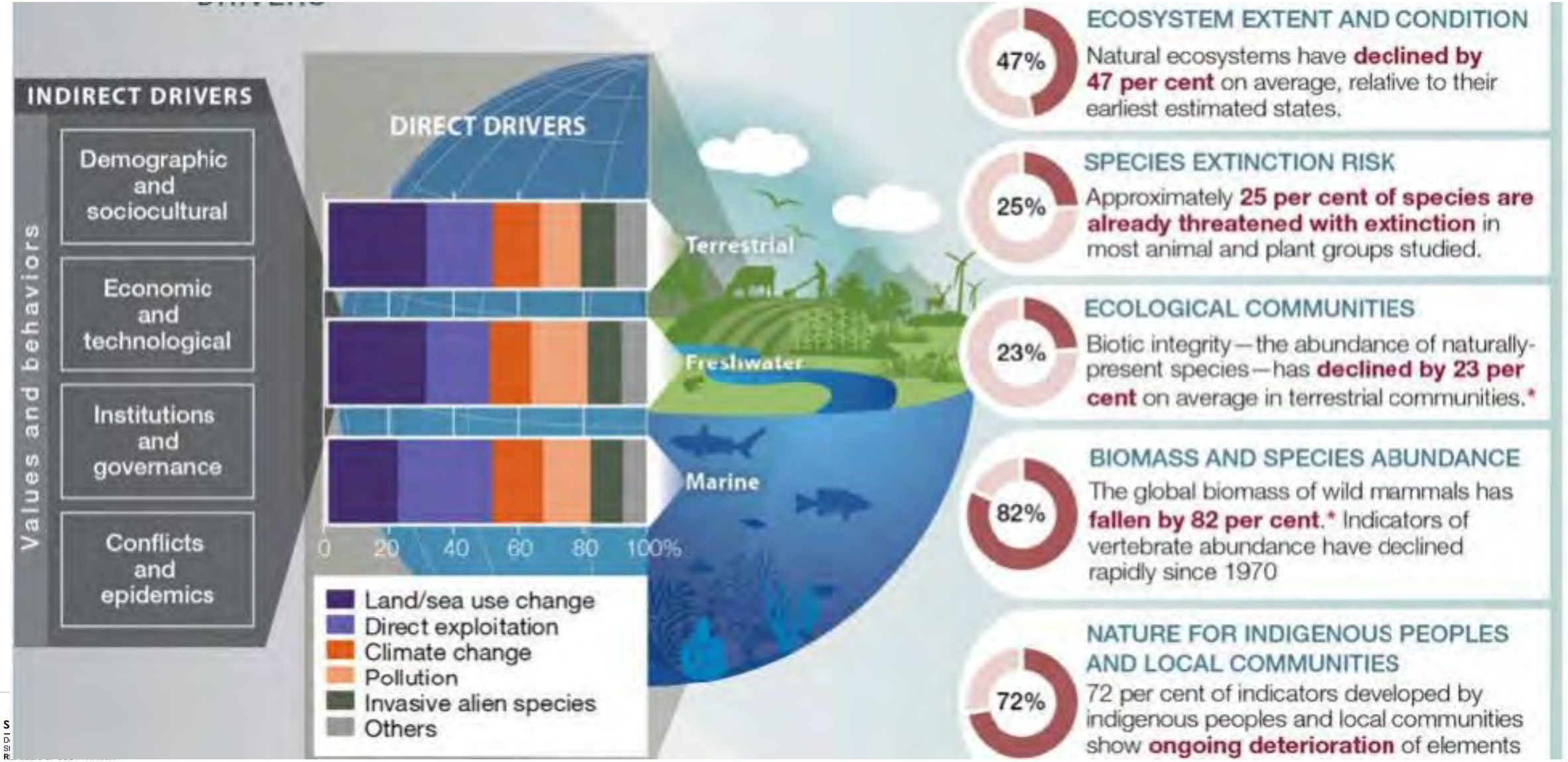
- Population Census

**Economic statistics & indica**

- National Accounts

SNA

# First global assessment of biodiversity & ecosystems has highlighted pressures on nature and consequences



# Natural Capital Accounts

→ Response to global environmental crisis

- Need to understand what's happening in the natural environment and its implications for the economy and society

# The measurement framework for NCA is the **System of Environmental-Economic Accounting**. It includes…

**SEEA Central Framework**: Accounts for stocks and flows of individual **natural resources**

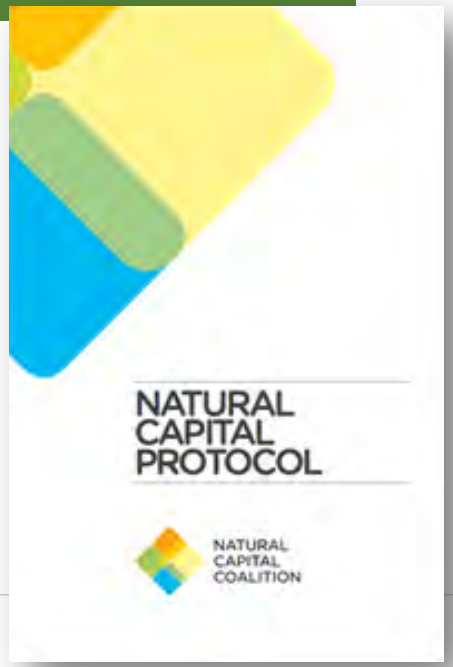
e.g. minerals, water, timber, fisheries


Adopted in 2012

**SEEA Experimental Ecosystem Accounting**: Accounts for **ecosystem assets** and **ecosystem services**

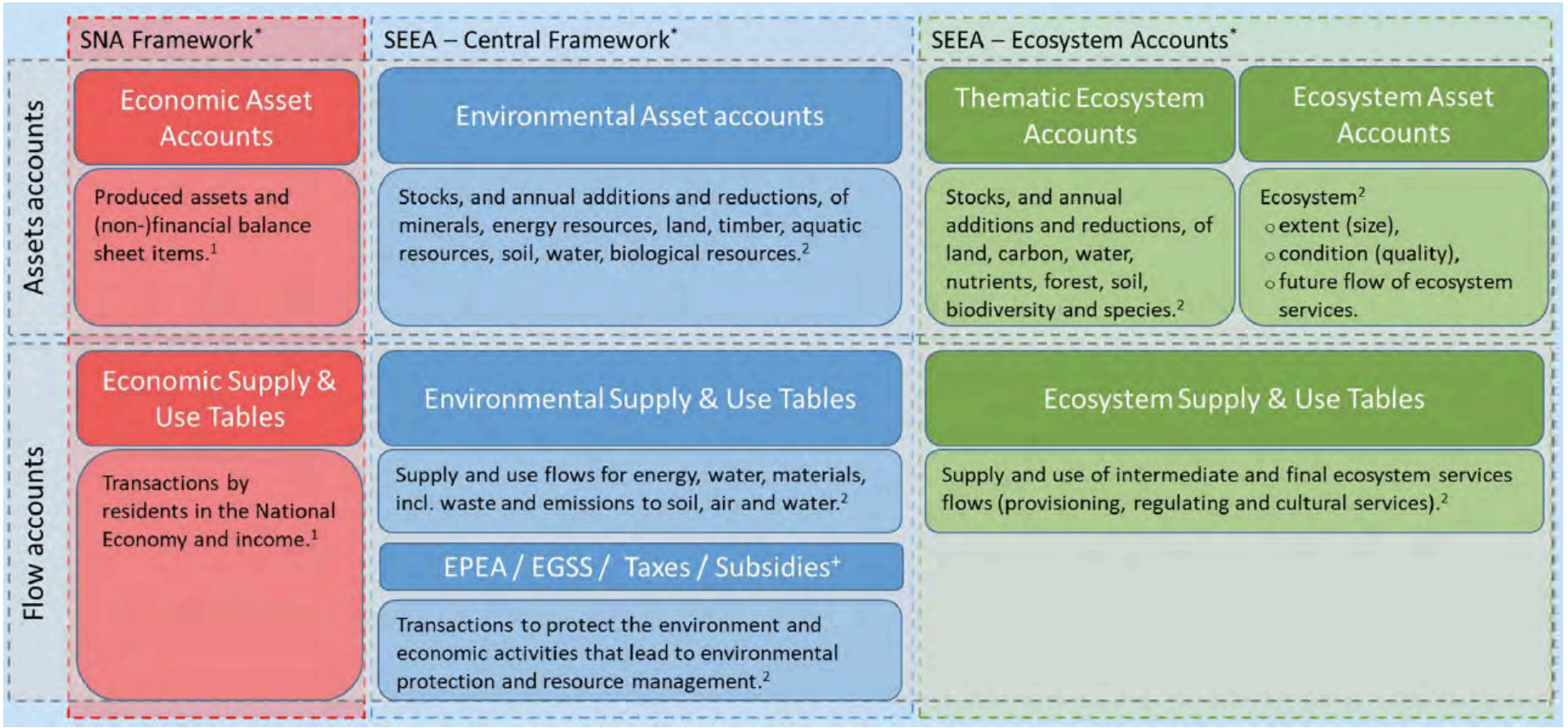

Still experimental

**Natural Capital Protocol**: Accounts for impacts on ecosystems and natural resources at the level of a **business**



# The scope of SEEA is broad

System of Environmental Economic Accounting



# What is the “accounting approach”? How do accounts add value?

- Standardised concepts and definitions
- Systematic regular measurement and recording, comparable over time
  - BUT don’t have to wait for perfect data
- Provides info that can be used in many contexts
  - e.g. policy, research (think of the many ways population census data is used)

- NCA translates scientific information about natural resources and ecosystems into a language that reaches a wide range of audiences

# Accounts are not always about money

- Natural capital accounts are always done in biophysical terms.
- Examples of things that are important to society that are measured in non-monetary terms, like literacy rates, matric pass rates, infant mortality rates, unemployment levels or life expectancy.
- The same is true for ecosystems – their importance and value to society can be captured in a range of statistics and indicators, many of which are non-monetary.

System of Environmental Economic Accounting

*"The future of policymaking and implementation is upon us and experience has taught us that without measurement, our boat will not sail far."* (Mr Jackson Mthembu, Minister in the Presidency)

Stats SA Strategic Plan (20/2021 – 2024/25) vision: 'Improving lives through data ecosystems'

# Statistics South Africa investment in NCA

1. Small beginnings
- Water accounts for SA

2. Little steps added
- Energy accounts for SA
- Mineral accounts for SA
- Fishery accounts for SA

3. More recently
- Water accounts for SA
- Land and Terrestrial Ecosystem Accounts
- Accounts for Protected Areas
- Land accounts for Metropolitan Municipalities
- Accounts for Species: Rhino & Cycads
- National River Ecosystem Accounts

4. Going forward
- Updated Water Accounts for SA
- Biodiversity Tourism
- Accounts for Strategic Water Source Areas
- Marine Ecosystem Accounts
- Satellite Account for Biodiversity Economy

2000 — 2020 — 2021 — 2022

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Environmental Affairs
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Biodiversity for Life

South African National Biodiversity Institute

water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

WATER RESEARCH COMMISSION

EZEMVELO KZN WILDLIFE

Conservation, Partnerships & Ecotourism

CSIR

our future through science

rural development & land reform

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NGI NATIONAL GEO-SPATIAL INFORMATION

MAPPING OUR NATION

DBSA

Development Bank of Southern Africa

ANCHOR environmental

GEOTERRA IMAGE

United Nations

UN environment

Convention on Biological Diversity

System of Environmental Economic Accounting

gef

NORWEGIAN MINISTRY OF FOREIGN AFFAIRS

2030 NDP

# Examples of Natural Capital Accounts developed more recently…

# Initial ecosystem accounts as part of **Advancing Natural Capital Accounting** (ANCA), 2014-2015


**Seven pilot countries**:

Bhutan, Chile, Indonesia, Mauritius, Mexico, **South Africa**, Vietnam

# ANCA project: **National River Ecosystem Accounts**: Extent and condition of river ecosystem assets

Based on data from two detailed national assessments by Department of Water & Sanitation

water & sanitation
Department:
Water and Sanitation
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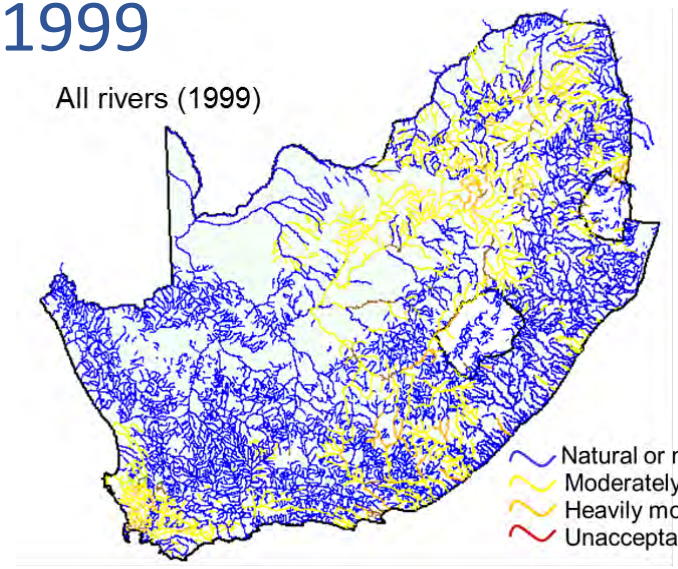
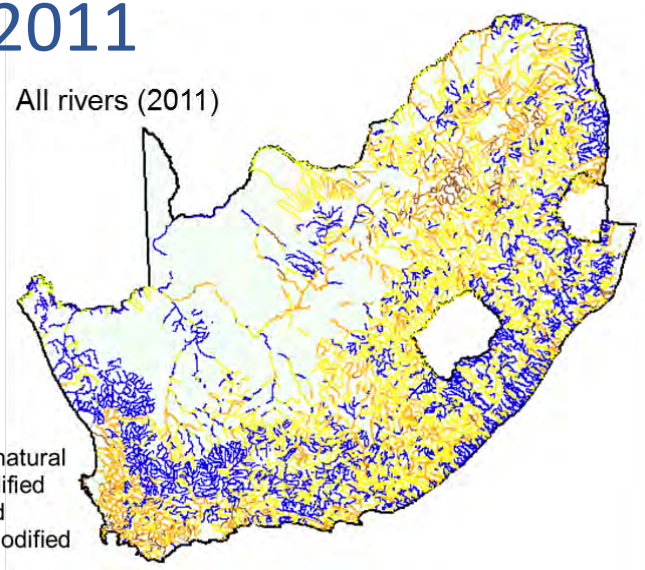
1999




2011




Ecological condition **indicators**

- Flow
- Water quality
- Instream habitat
- Riparian habitat

Aggregated ecological condition **category** → **Ecological Condition Index**

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United Nations Statistics Division

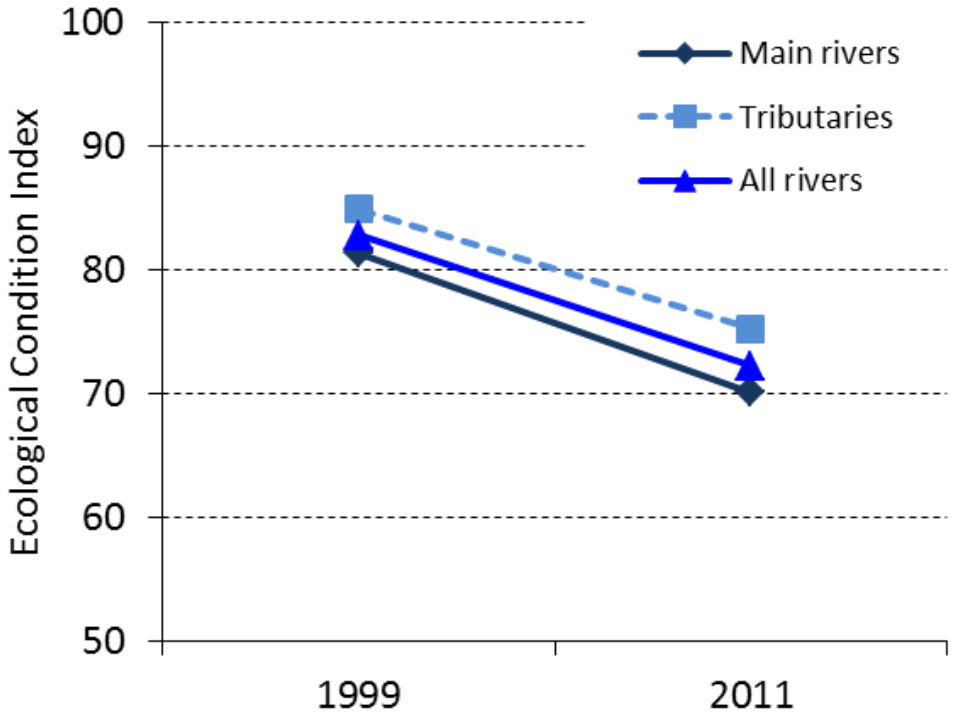
UNEP

Convention on Biological Diversity

NORWEGIAN MINISTRY OF FOREIGN AFFAIRS

# Highest level summary of the Ecological Condition Account:

| | Main rivers | Tributaries | All rivers |
|---|---|---|---|
| 1999 | 81.3 | 84.9 | 82.8 |
| 2011 | 70.1 | 75.2 | 72.2 |
| Change between 1999 and 2011 | -11.2 | -9.7 | -10.6 |




Overall
**10% decline** in
ecological condition
of rivers
1999–2011

Information for national policies, such as **National Water & Sanitation Master Plan**

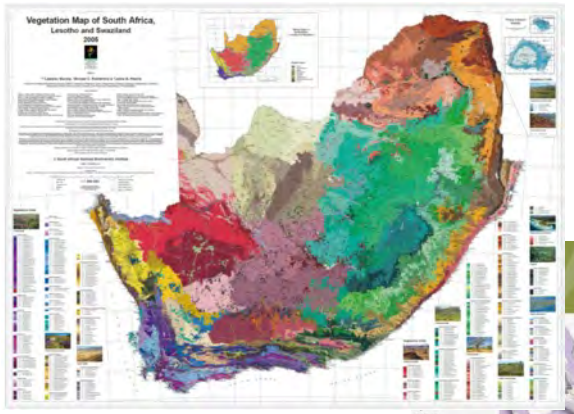
# Natural Capital Accounting & Valuation of Ecosystem Services (NCA&VES) project

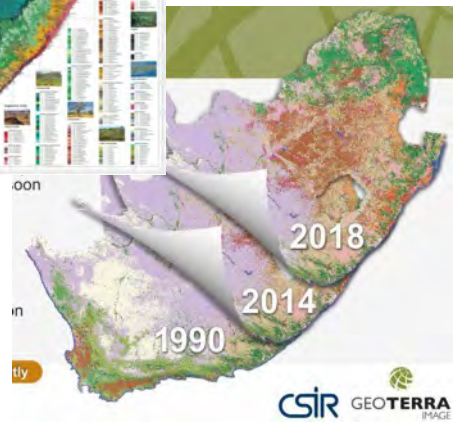

**Five pilot countries**: Brazil, China, India, Mexico, **South Africa**

# Accounts produced in NCAVES Project in South Africa

National

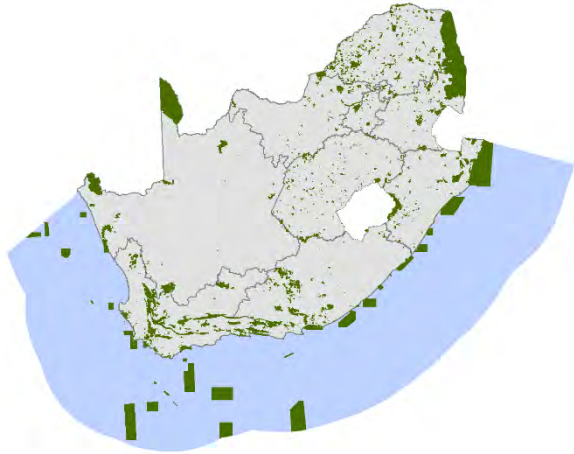
National **land and terrestrial ecosystem** accounts – extent



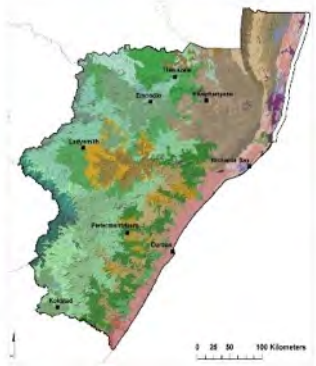




**Accounts for Species** – rhino & cycads

**Accounts for Protected Areas** – land-based

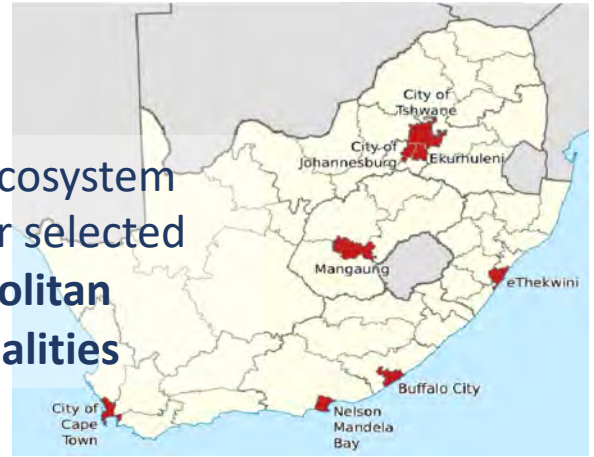


Sub-national



KZN: Full suite of **ecosystem asset and ecosystem service** accounts

Land and ecosystem accounts for selected **Metropolitan Municipalities**



# Basic Spatial Unit (BSU)

BSU 1 (728 million 100m cells):
South Africa + EEZ + Transboundary basins

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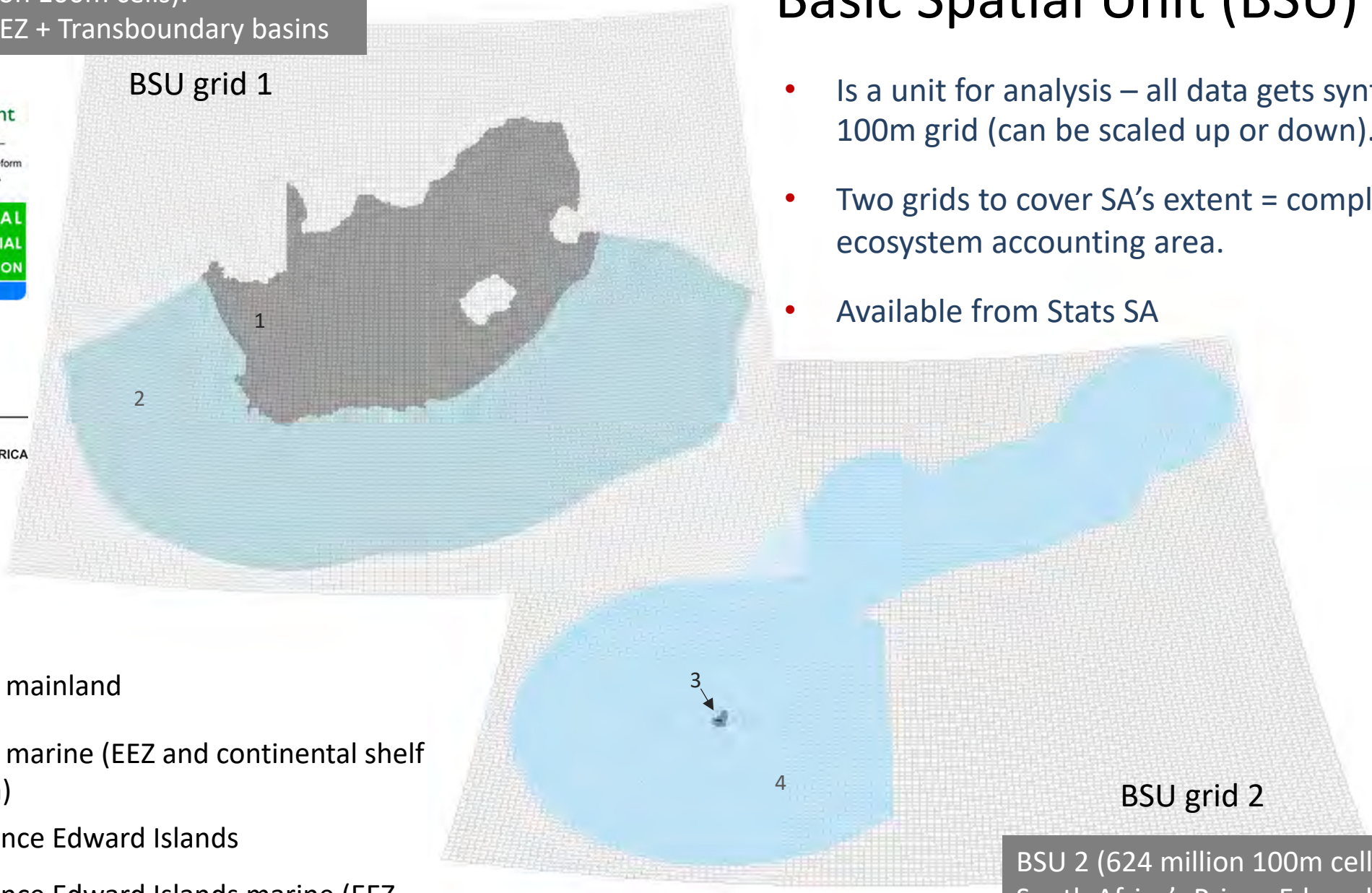
- Is a unit for analysis – all data gets synthesized in a 100m grid (can be scaled up or down).
- Two grids to cover SA's extent = complete possible ecosystem accounting area.
- Available from Stats SA




1: SA mainland

2: SA marine (EEZ and continental shelf claim)

3: Prince Edward Islands

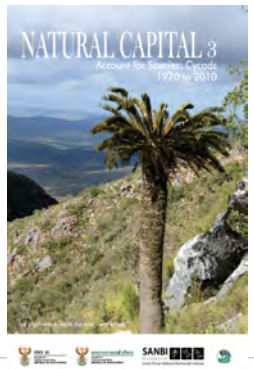
4: Prince Edward Islands marine (EEZ and continental shelf claim)

BSU 2 (624 million 100m cells):
South Africa's Prince Edward Islands + EEZ

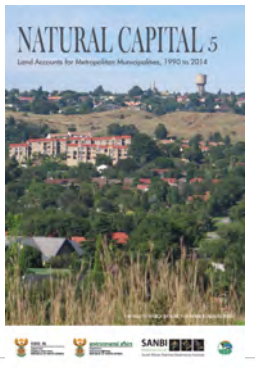
# SA's land and terrestrial ecosystem accounts

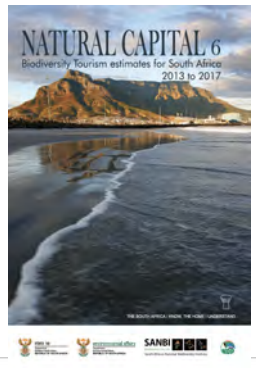

- Report results at different levels:
  - National
  - Provincial
  - District Municipality

- First publication in Stats SA's new *Natural Capital* series

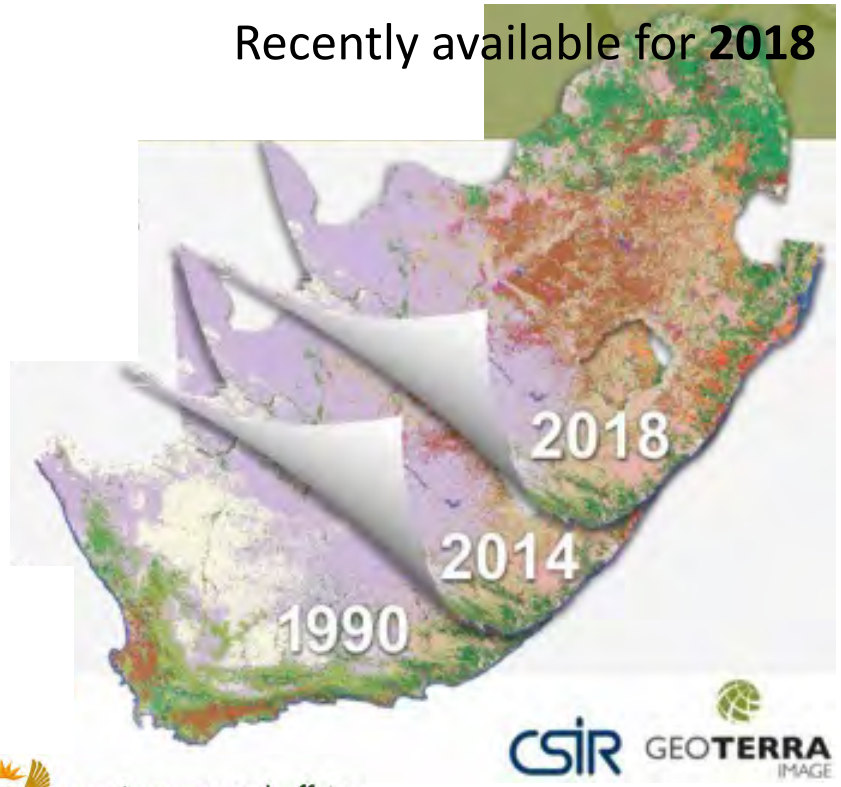





# Foundational data layers

Recently available for **2018**




CSIR GEOTERRA IMAGE

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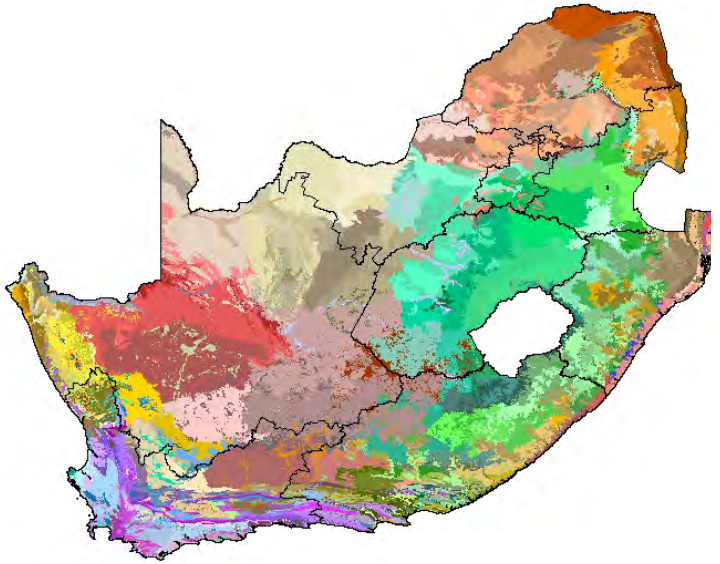
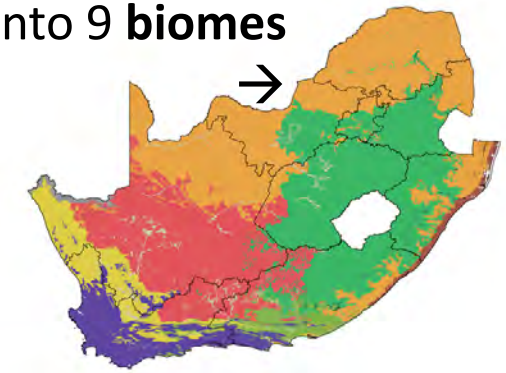
Basic Spatial Unit for mainland SA

Terrestrial ecosystem types are grouped into 9 **biomes**



→



**Biomes**
- Albany Thicket
- Desert
- Forests
- Fynbos
- Grassland
- Indian Ocean Coastal Belt
- Nama-Karoo
- Savanna
- Succulent Karoo
- Azonal Vegetation
- Provincial boundary

458 terrestrial ecosystem types, represented by **vegetation types**

→ *Ecosystem types delineated based on **historical extent**, prior to major human modification*

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# Grouping of 72 National Land Cover classes into nested tiers

| Broad land cover classes<br>*Tier 1: 4 classes* | Main land cover classes<br>*Tier 2: 8 classes* | Detailed land cover classes<br>*Tier 3: 20 classes* | National Land Cover (NLC) classes<br>*Tier 4: 72 classes* |
|---|---|---|---|
| **Natural or semi-natural** | Natural or semi-natural | Natural or semi-natural | 8 land cover classes |
| **Cultivated** | Commercial crops | Cultivated commercial fields | 4 land cover classes |
| | | Cultivated commercial pivots | 3 land cover classes |
| | | Sugarcane | 6 land cover classes |
| | Subsistence crops | Subsistence crops | 3 land cover classes |
| | Orchards and vines | Orchards | 3 land cover classes |
| | | Vines | 3 land cover classes |
| | Timber plantations | Timber plantations | 3 land cover classes |
| **Built-up** | Urban | Urban parkland | 4 land cover classes |
| | | Urban industrial | 1 land cover class |
| | | Urban commercial | 1 land cover class |
| | | Urban built-up | 4 land cover classes |
| | | Urban residential | 4 land cover classes |
| | | Urban township | 4 land cover classes |
| | | Urban informal | 4 land cover classes |
| | | Urban smallholding | 4 land cover classes |
| | | Urban village | 4 land cover classes |
| | | Urban school and sports ground | 1 land cover class |
| | Mines | Mines | 5 land cover classes |
| **Waterbodies** | Waterbodies | Waterbodies | 3 land cover classes |

**Natural or semi-natural classes** grouped as a single class at Tier 1, 2 and 3

**Intensively modified classes**:

- align with **intensity of ecological impact**
- link to **socio-economic drivers** in the landscape as far as possible

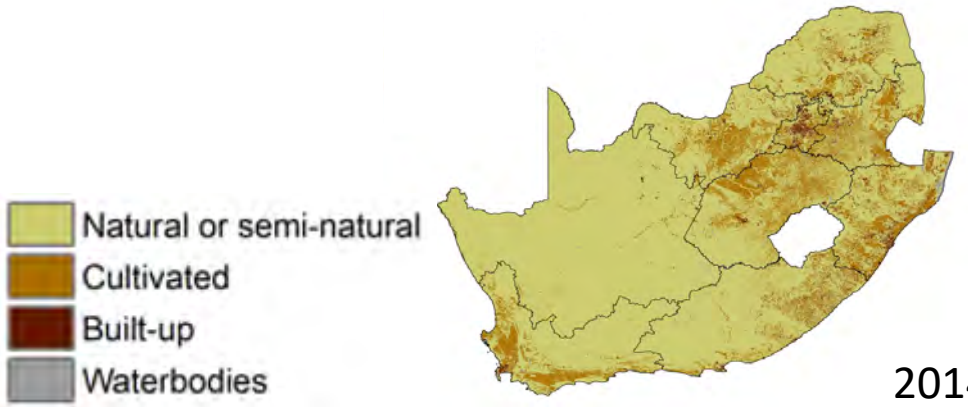
# Land account for broad land cover classes (tier 1) at the national level, 1990–2014, in hectares

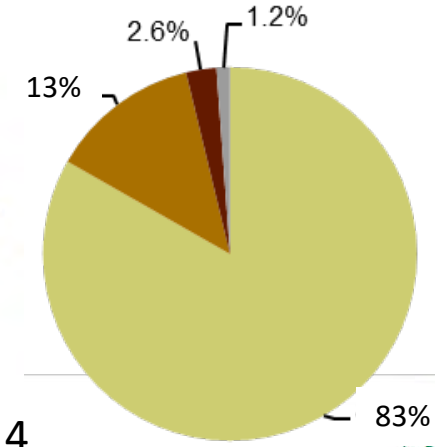
| Broad land cover classes (tier 1) | Natural or semi-natural | Cultivated | Built-up | Waterbodies* | TOTAL |
|---|---|---|---|---|---|
| **Opening stock 1990** | **100 710 016** | **16 156 026** | **3 003 883** | **2 096 528** | **121 966 453** |
| **Additions to stock** | 3 366 559 | 1 991 959 | 597 238 | 288 754 | 6 244 510 |
| **Reductions in stock** | 2 540 175 | 2 339 226 | 400 503 | 964 606 | 6 244 510 |
| **Net change in stock** | 826 384 | (347 267) | 196 735 | (675 852) | |
| *Net change as % of opening* | **0.8%** | **-2.1%** | **6.5%** | **-32.2%** | |
| **Unchanged (opening - reductions)** | 98 169 841 | 13 816 800 | 2 603 380 | 1 131 922 | |
| *Unchanged as % of opening* | 97.5% | 85.5% | 86.7% | 54.0% | |
| **Turnover (additions + reductions)** | 5 906 734 | 4 331 185 | 997 741 | 1 253 360 | |
| *Turnover as % of opening* | 5.9% | 26.8% | 33.2% | 59.8% | |
| **Closing stock 2014** | **101 536 400** | **15 808 759** | **3 200 618** | **1 420 676** | **121 966 453** |

*The large net decrease in the extent of waterbodies reflects primarily that 1990 was a much wetter year than 2014.

By far the majority of South Africa's land area is **natural or semi-natural**

Not much change between 1990 and 2014 at the national level for tier 1 – BUT this hides a lot of sub-national variation and changes at tier 2 and 3




2014

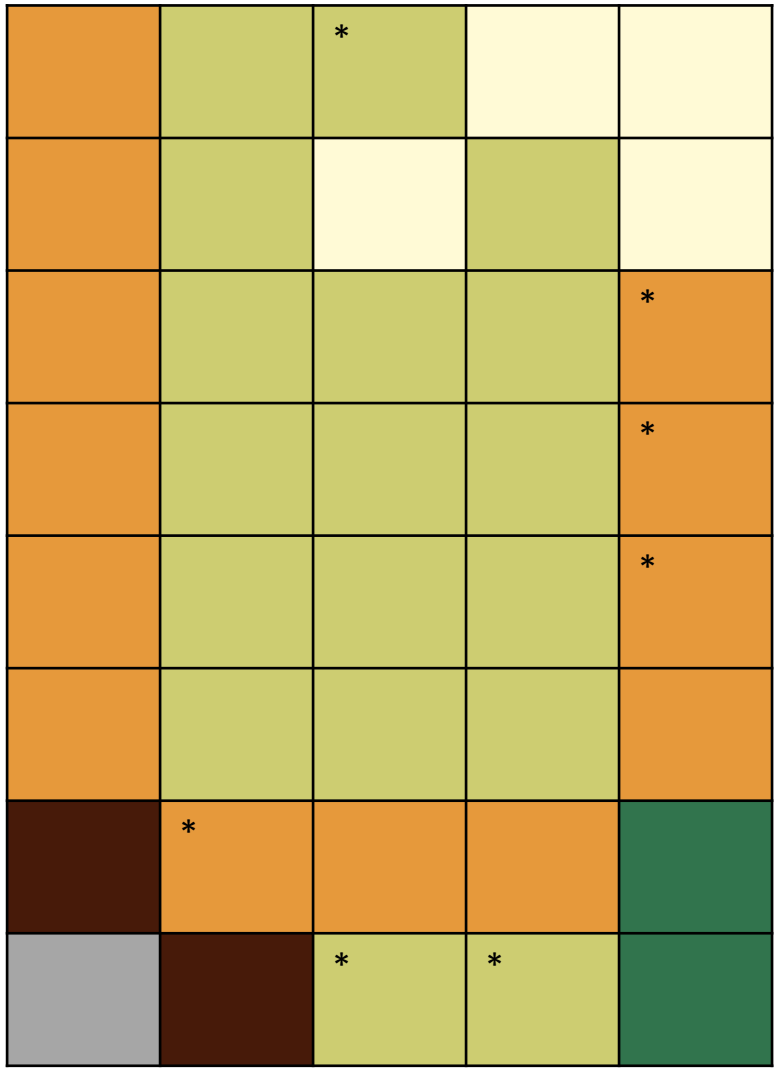
1990

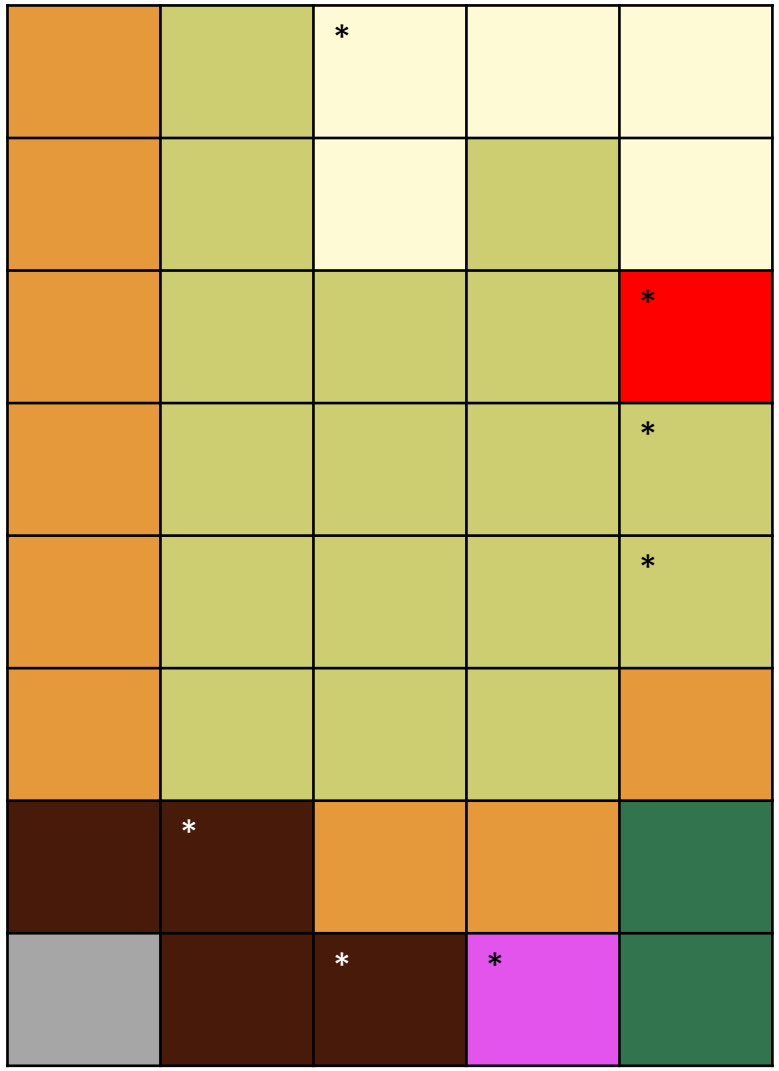
2014

**National land cover (tier 2)**

**2014**

- Natural or semi-natural
- Commercial crops
- Subsistence crops
- Orchards and vines
- Plantations
- Urban
- Mines
- Waterbodies





Basic spatial units

# Extent account for terrestrial ecosystem types summarised by biome

**Natural biomes** derived from National Vegetation Map

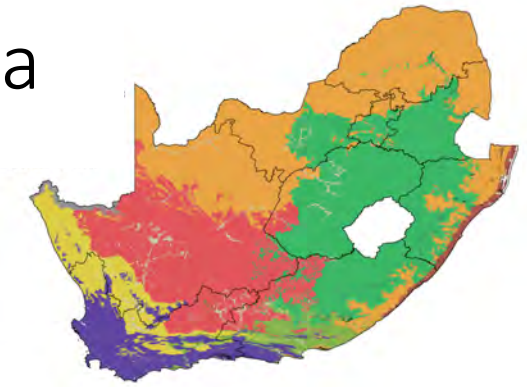
**Intensively modified biomes** derived from National Land Cover

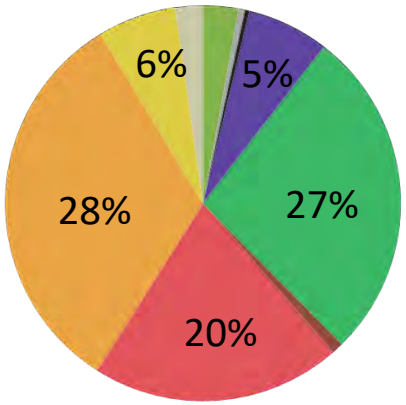
| Biomes | Albany Thicket | Desert | Forest | Fynbos | Grassland | IOCB | Nama-Karoo | Savanna | Succulent Karoo | Azonal vegetation | Cultivated* | Built-up* | Water-bodies** | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Historical extent** | **3 531 231** | **626 207** | **462 518** | **8 165 366** | **33 090 325** | **1 171 284** | **24 936 548** | **39 418 522** | **7 821 579** | **2 742 873** | - | - | - | **121 966 453** |
| **Additions to extent** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 156 026 | 3 003 883 | 2 096 528 | 21 256 437 |
| **Reductions in extent** | 230 091 | 8 237 | 70 673 | 2 253 375 | 11 330 606 | 619 656 | 420 995 | 5 396 119 | 251 373 | 675 312 | - | - | - | 21 256 437 |
| **Net change in extent** | (230 091) | (8 237) | (70 673) | (2 253 375) | (11 330 606) | (619 656) | (420 995) | (5 396 119) | (251 373) | (675 312) | - | - | - | |
| *Net change as % of historical* | **-6,5%** | **-1,3%** | **-15,3%** | **-27,6%** | **-34,2%** | **-52,9%** | **-1,7%** | **-13,7%** | **-3,2%** | **-24,6%** | - | - | - | |
| **Closing extent 1990** | **3 301 140** | **617 970** | **391 845** | **5 911 991** | **21 759 719** | **551 628** | **24 515 553** | **34 022 403** | **7 570 206** | **2 067 561** | **16 156 026** | **3 003 883** | **2 096 528** | **121 966 453** |
| **Opening extent 1990** | **3 301 140** | **617 970** | **391 845** | **5 911 991** | **21 759 719** | **551 628** | **24 515 553** | **34 022 403** | **7 570 206** | **2 067 561** | **16 156 026** | **3 003 883** | **2 096 528** | **121 966 453** |
| **Additions to extent** | 44 432 | 1 142 | 24 900 | 241 184 | 1 444 446 | 75 114 | 146 910 | 1 160 055 | 38 422 | 189 954 | 1 991 959 | 597 238 | 288 754 | 6 244 510 |
| **Reductions in extent** | 36 008 | 1 260 | 7 689 | 196 035 | 1 180 183 | 63 783 | 78 038 | 885 303 | 33 631 | 58 021 | 2 339 226 | 400 503 | 964 606 | 6 244 286 |
| **Net change in extent** | 8 424 | (118) | 17 211 | 45 149 | 264 263 | 11 331 | 68 872 | 274 752 | 4 791 | 131 933 | (347 267) | 196 735 | (675 852) | |
| *Net change as % of opening* | **0,3%** | **0,0%** | **4,4%** | **0,8%** | **1,2%** | **2,1%** | **0,3%** | **0,8%** | **0,1%** | **6,4%** | **-2,1%** | **6,5%** | **-32,2%** | |
| **Net change in relation to historical extent** | (221 667) | (8 355) | (53 462) | (2 208 226) | (11 066 343) | (608 325) | (352 123) | (5 121 367) | (246 582) | (543 379) | - | - | - | |
| *Net change as % of historical* | **-6,3%** | **-1,3%** | **-11,6%** | **-27,0%** | **-33,4%** | **-51,9%** | **-1,4%** | **-13,0%** | **-3,2%** | **-19,8%** | - | - | - | |
| **Closing extent 2014** | **3 309 564** | **617 852** | **409 056** | **5 957 140** | **22 023 982** | **562 959** | **24 584 425** | **34 297 155** | **7 574 997** | **2 199 270** | **15 808 759** | **3 200 618** | **1 420 676** | **121 966 453** |

* Cultivated areas, built-up areas and waterbodies are treated as biomes for the purpose of the ecosystem extent account table. There is no reliable spatial information on the historical extent of waterbodies, subsistence cultivation or habitation.

** The large net decrease in the extent of waterbodies reflects primarily that 1990 was a much wetter year than 2014. Waterbodies include both natural and artificial water bodies (such as dams).

# Proportion of ecosystem accounting area covered by specific ecosystem types



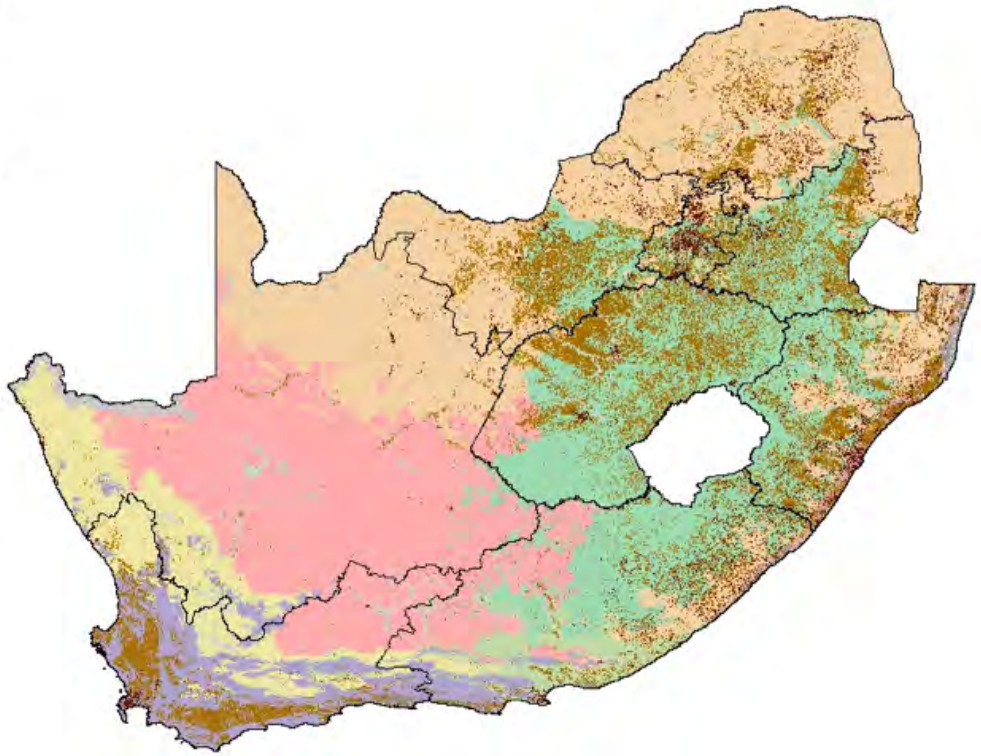


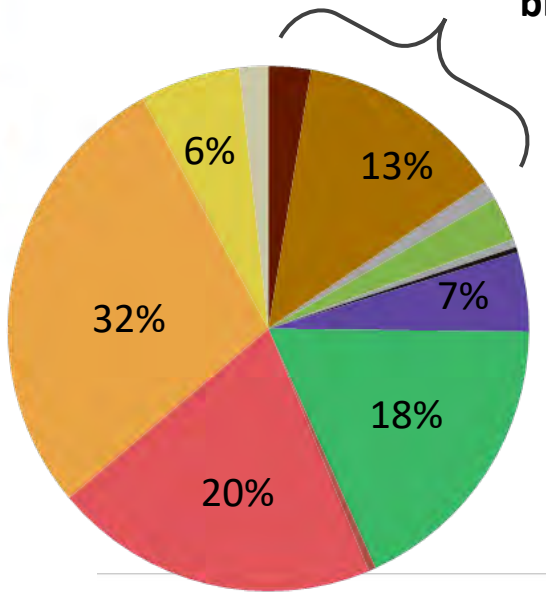

**Historical reference**

**2014**

**Intensively modified "biomes"**
- Built-up
- Cultivated
- Waterbodies

**Natural or semi-natural biomes**
- Albany Thicket
- Desert
- Forest
- Fynbos
- Grassland
- Indian Ocena Coastal Belt
- Nama-Karoo
- Savanna
- Succulent Karoo
- Azonal Vegetation
- Provincial boundary






**Intensively modified biomes** have replaced portions of natural biomes

# Net change in area covered by specific ecosystems types
(expressed in absolute or percentage terms)

Some remarkable changes in intensively modified ecosystem types between 1990 – 2014

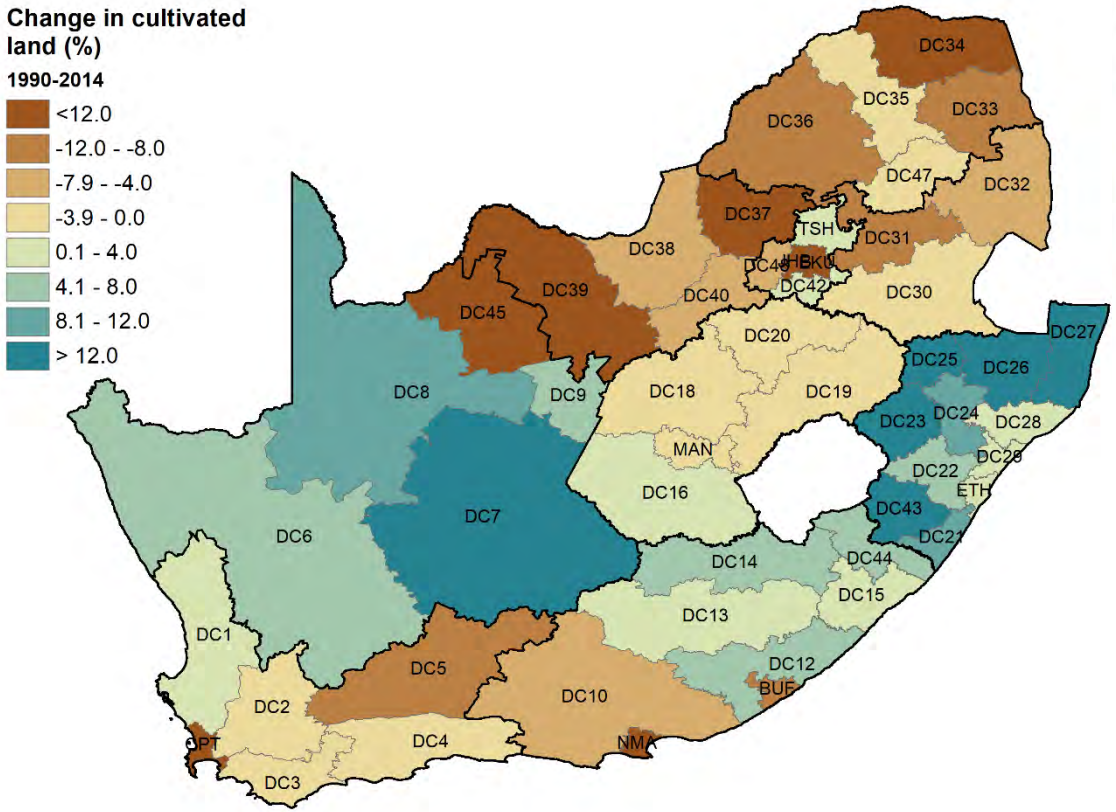
Centre-pivot irrigated cultivation increased by 220%, from 240 000 ha to 770 000 ha

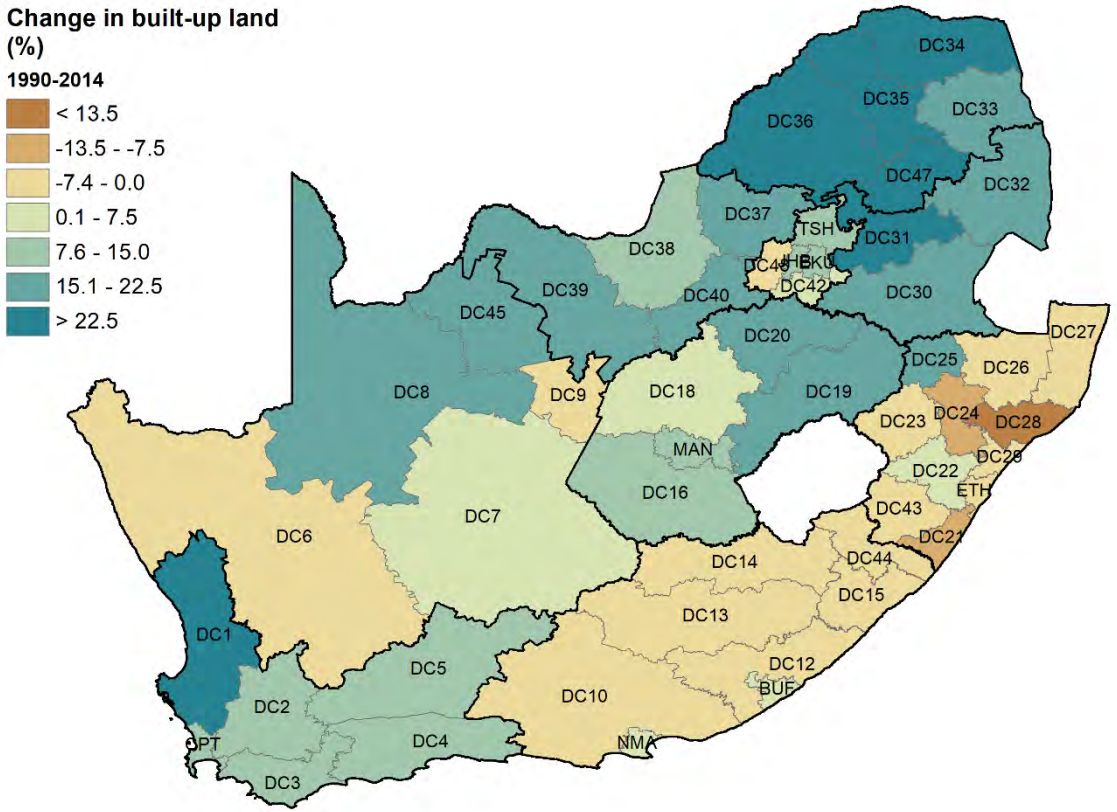
- Large ecological impacts including on water

Area of informal urban settlements almost doubled, from 31 000 ha to 60 000 ha

- Significant challenges for urban planning and service provision

# Change in land cover per DM




- District municipalities with the highest and lowest net change as a percentage of opening stock for each land cover class, tier 2

# Net change in area covered by specific ecosystem types
(expressed in absolute or percentage terms)

## Largest changes in natural biomes 1990 – 2014

- Largest *absolute decrease* in Grassland biome, from 33m ha to 22m ha
- Largest *percentage decrease* in Indian Ocean Coastal Belt, from 1.2m ha to 0.6m ha

# Percentage of area changed [we've called this percentage **turnover**]

## Definition

- (additions + reductions) / opening extent

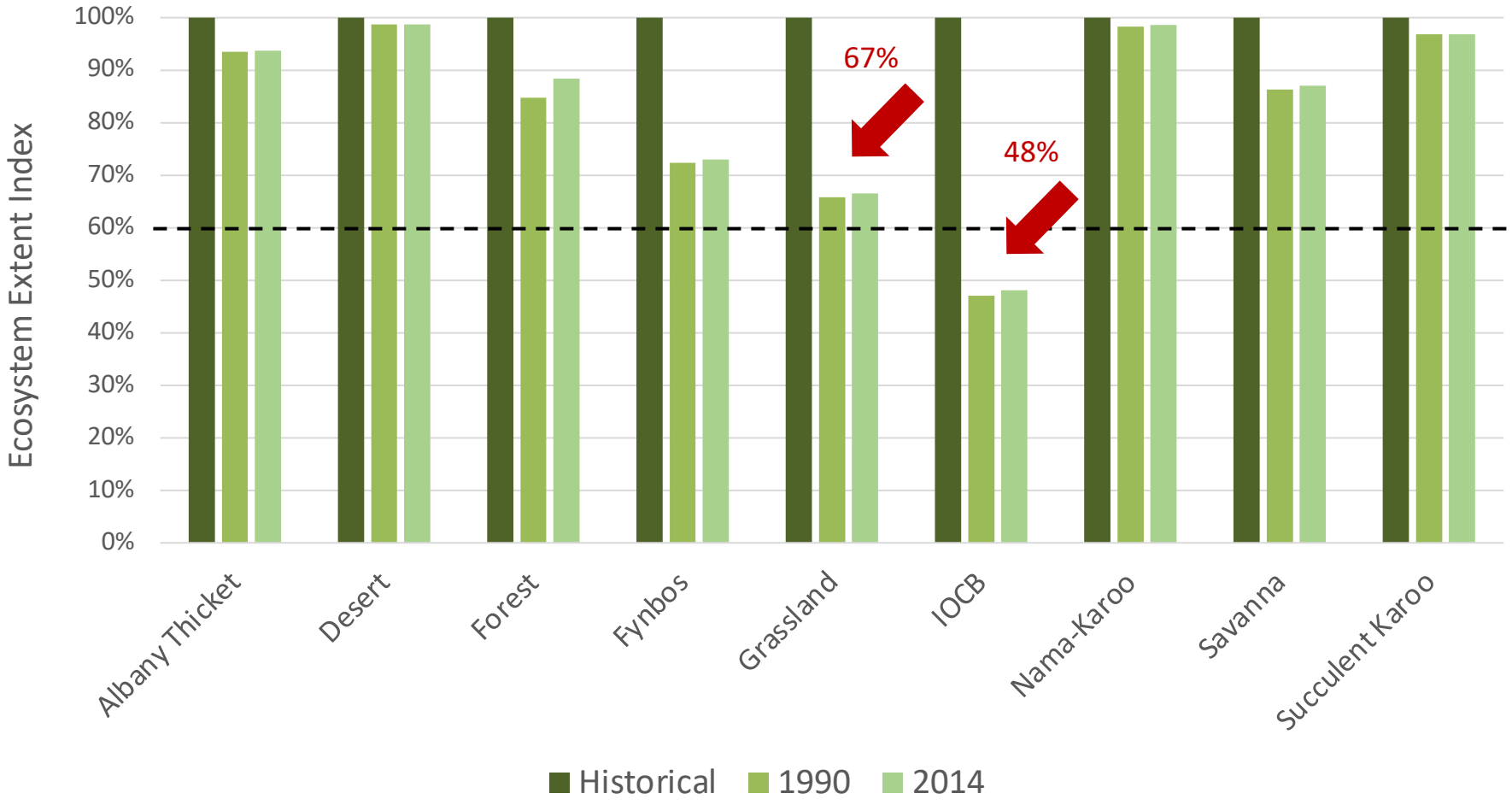
- Can indicate socio-economic changes in the landscape

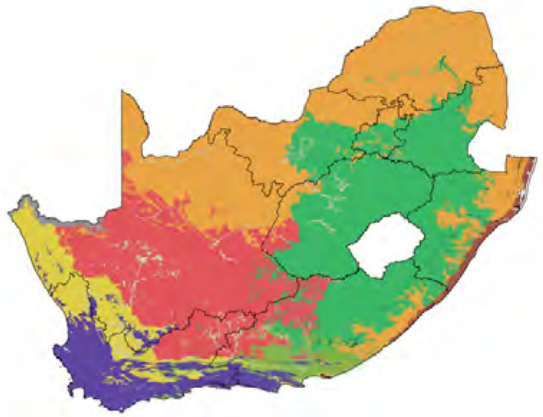
Example

- **Net change** in subsistence crops of **only 1.1%**
  - from 1.95 million ha in 1990 to 1.97 million ha in 2014
- BUT **turnover was 46%** - indicating substantial changes in where cropping took place
  - Change matrix and maps can provide additional info to help interpret these shifts

# Ecosystem Extent Index

can be evaluated against thresholds, for example, a threshold for ecological functioning



Ecological function threshold

# Concluding comments

- The examples of natural capital accounts were coproduced through collaboration.
- Would not have been possible without partnership and collaboration
- Meets Stats SA's standards through application of the SEEA and national classification systems
- These have helped place South Africa at the forefront of a global movement on NCA.
- At a time of resource constraint, even more important to collaborate and build partnerships with strategic entities in the state, private sector, in Africa and internationally to further advance NCA in SA

# Concluding comments

- There is opportunity for Stats SA to embrace partners as data providers, compilers of accounts or users of information from accounts to drive advancement of NCA and help build distributed and diverse capacity/expertise.
- There is opportunity for partners benefit from Stats SAs mandate as the:
  - ***National Statistical Authority***, to inform stakeholders on the economy, society and environment, by, amongst other things:
    - designating statistics as official of Stats SA and other organs of state; and
    - liaising with other countries and statistical agencies as well as representing Stats SA and South Africa in statistical activities internationally.
  - ***National Statistical Coordinator***, to promote coordination among producers of official and other statistics in order to advance quality, comparability and optimum use of official statistics and to avoid duplication by, amongst other things:
    - Formulating quality criteria and establishing standards, classifications and procedures;
    - Providing statistical advice; and
    - Advancing the quality, consistency, comparability and optimum use of official statistics and avoid unnecessary duplication.

# Thank you

# Appendix 2. National Natural Capital Accounting Strategy

Appendix 2

# National Natural Capital Accounting Strategy

18 November 2020

Presenter: Aimee Ginsburg, SANBI NCA Project Manager

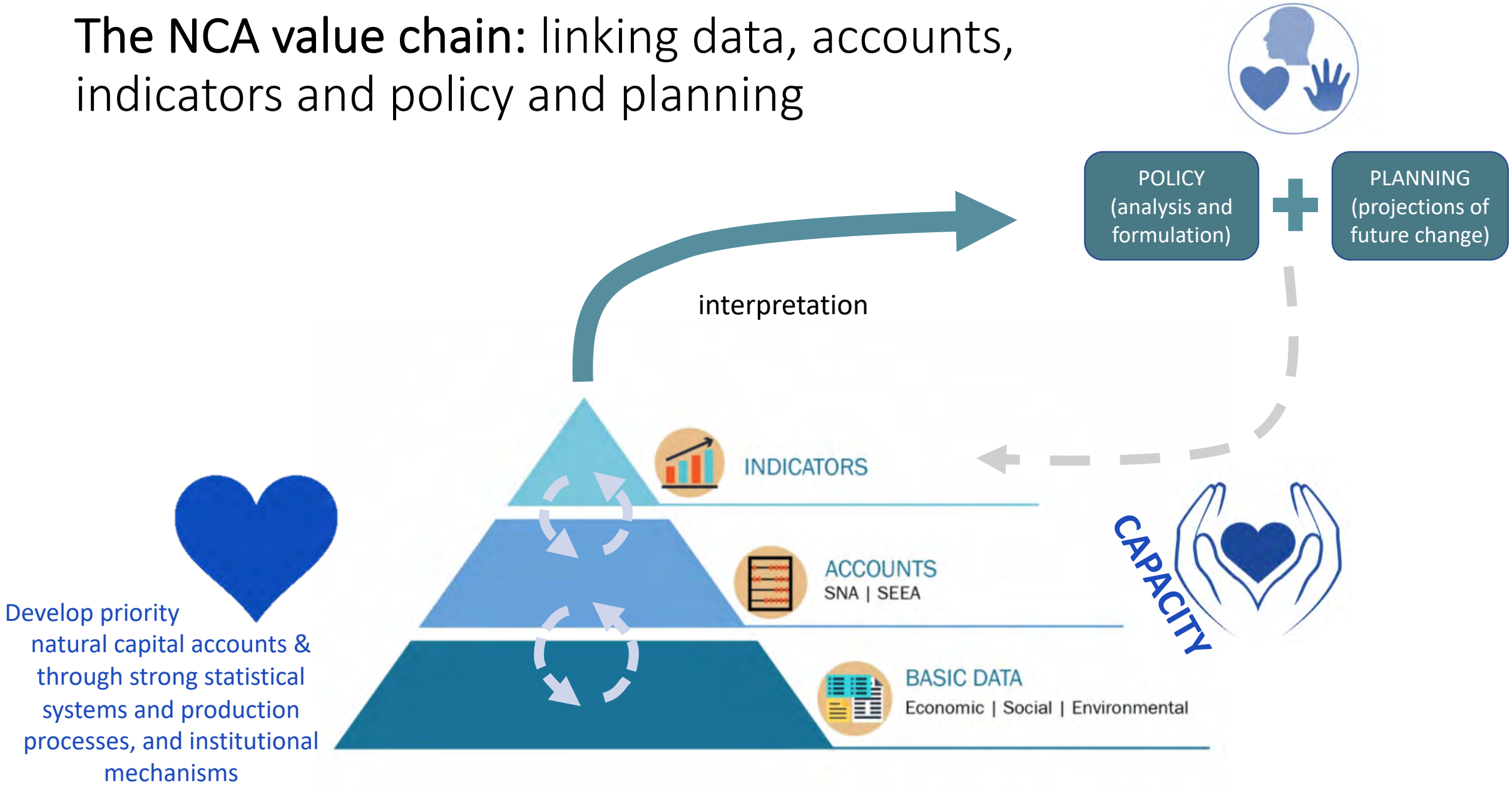
# National NCA Strategy – why one is needed?

- There are wide range of accounts that can be produced.
- Growing recognition of the value of producing accounts.
- Recognizing the work and capacity involved in doing so,
- It benefits South Africa to have a strategy that offers…

# National NCA Strategy – that offers…

- **Coordination of an integrated body of NCA work in SA**
- **Development of statistics** from natural capital accounts within and outside of the national statistical office through **agreed standards, delivering reliable and comparable results** that are also coordinated with socio-economic statistics;
- **Derivation and use of relevant national indicators for statistical purposes from NCA** in measurement of national indicators in South Africa (as called for in the National Development Plan (NDP), Medium Term Strategic Framework (MTSF), and continental and international sustainable development agendas), such as those contained in the Stats SA integrated indicator framework (IIF); and
- **Collaboration between institutions** to strengthen investment and commitment to the production of consistent and regular accounts that provide credible evidence for integrated planning, monitoring and decision-making.

# **The NCA value chain:** linking data, accounts, indicators and policy and planning




Source: Adapted from SANBI & Statistics South Africa (2018), UNSD (2002), and SEEA website (pyramid)

# Purpose and timeframe

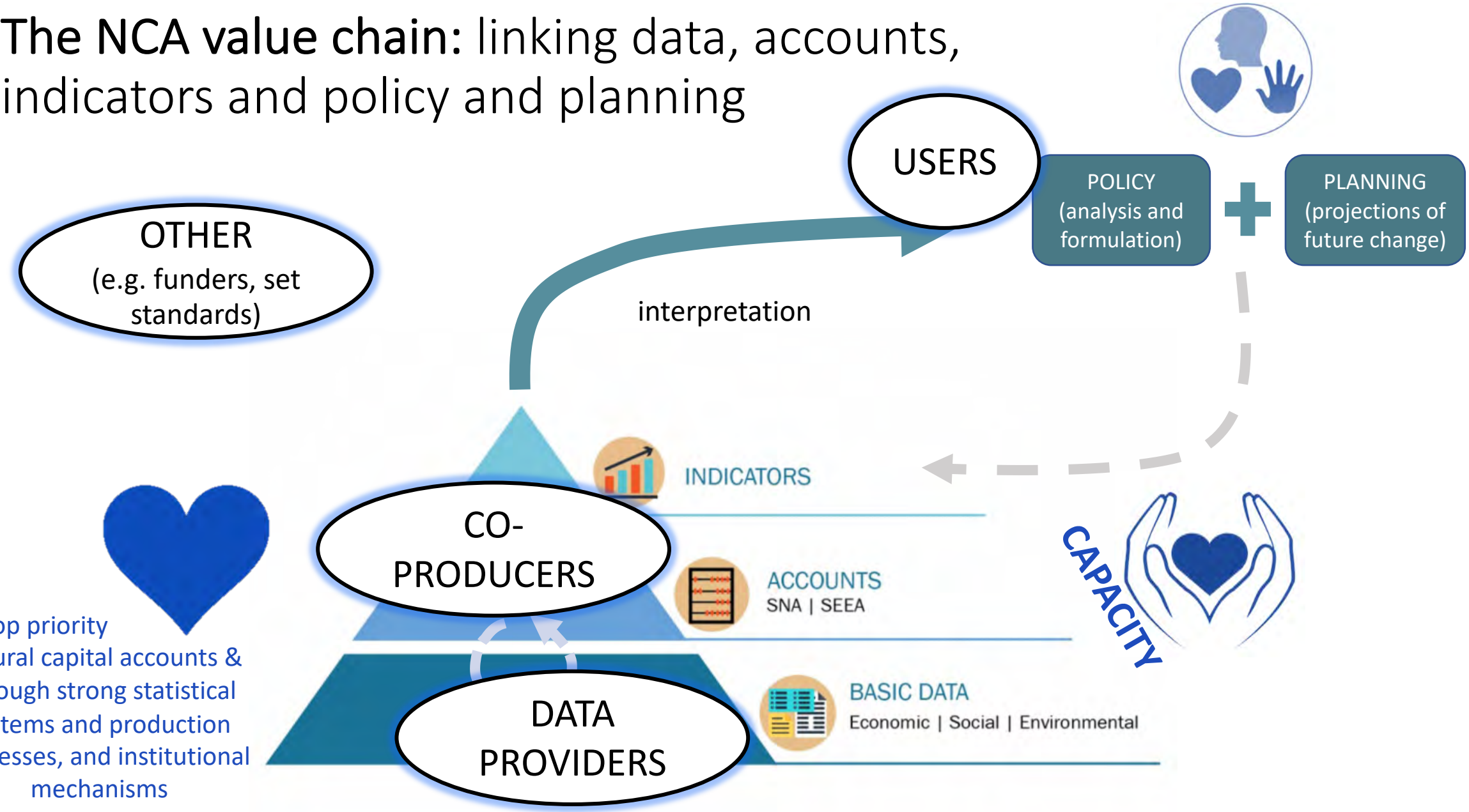
- To focus the efforts of Statistics South Africa (Stats SA) and other institutions engaged in NCA on
  - developing priority national-level natural capital accounts and
  - effective statistical systems and institutional mechanisms
  - to inform South Africa’s sustainable development policy objectives.

- 10-year time frame with a 5-year review.

# Who is it for?

- NCA is inherently multi-disciplinary, and NCA information is or could be used by a wide range of organisations.
- Stats SA compiling the Strategy, have an important role in ensuring coordination and production of reliable environmental statistics, including:
  - As the ***National Statistical Authority***, designating statistics as official, and liaising with other countries and statistical agencies
  - As the ***National Statistical Coordinator***, promoting coordination among producers of statistics, formulating quality criteria, establishing standards, classifications and procedures, providing statistical advice, advancing comparability and optimum use of official statistics.
- If you are producing or using national-level natural capital accounts, you should be able to find yourself and their application in this Strategy.

# **The NCA value chain:** linking data, accounts, indicators and policy and planning




Source: Adapted from SANBI & Statistics South Africa (2018), UNSD (2002), and SEEA website (pyramid)

# How was the Strategy developed?

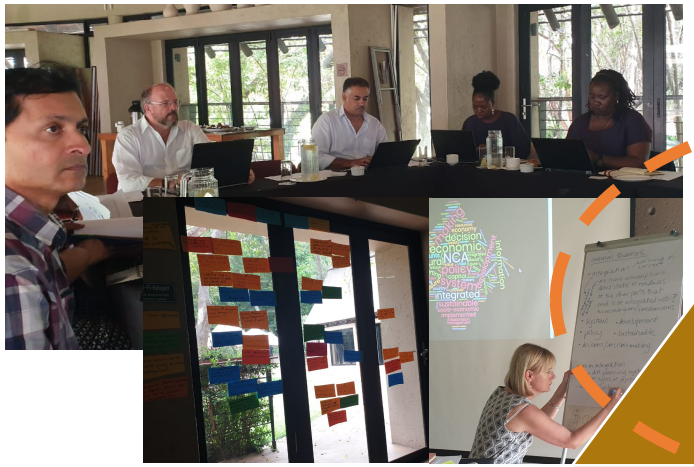
- A little history:
  - UNSD identified development of national plan/strategy as important for institutionalization, uptake and ongoing production of SEEA Ecosystem Accounts.
  - National plan was drafted as part of ANCA project (2014-5)
  - Built into the design of NCAVES Project (2017-2020)

- Process of development began with:
  - *Assessment report towards the development of a national strategy for advancing environmental-economic and ecosystem accounting in South Africa* (SANBI & Stats SA 2018)
    - Made recommendations for national strategy

# How was the strategy developed?

- Two year evolution informed by:
  - Stakeholder engagement through:
    - National NCA Stakeholder Workshop in March 2018,
    - National NCA Forum in June 2019,
    - National NCA Strategy Stakeholder Workshop in November 2020.
  - Tri- and multi-lateral engagements
  - Advice of the NCA Strategic Advisory Group (SAG)
  - Guidance from a Project Reference Group (PRG) for the NCA and Valuation of Ecosystem Services (NCAVES) Project.

# NCA-SAG co-created a vision and identified areas of work that will contribute towards achieving the vision



Vision

Strategic objectives

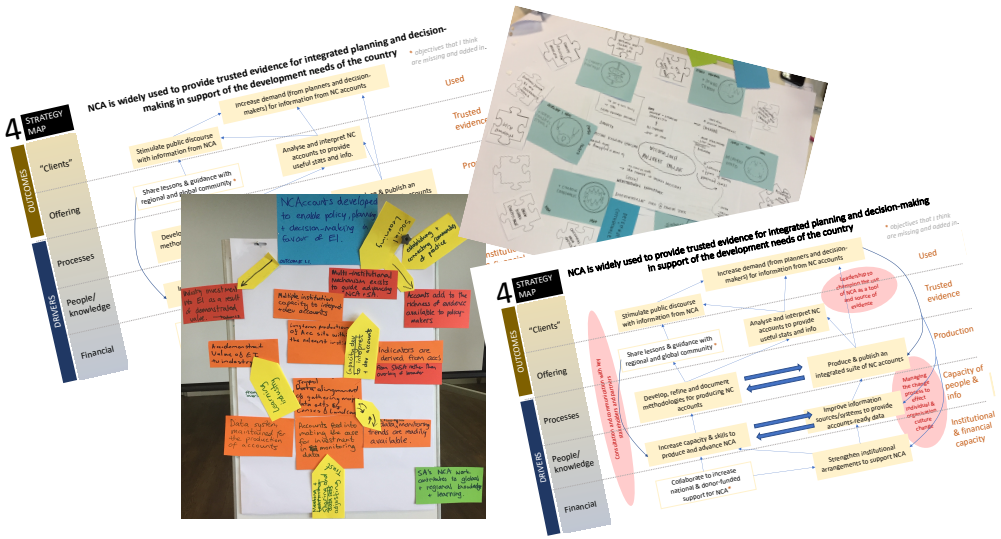
Outputs

Activities

Draft vision, early strategic objectives and some ideas for outputs and activities

What we wish to produce or deliver?

What we have to do to deliver?



STRATEGY MAP

VISION: NCA is widely used to provide credible evidence for integrated planning and decision-making in support of the development needs of the country

OUTCOMES

"Clients"

Offering

DRIVERS

Processes

People/ knowledge

Financial

1.1. Increase the use of NC accounts-based indicators and information for high-level and sectoral policies and planning

1.2. Stimulate public discourse with information from NCA

*Leadership to champion the use of NCA as a tool and source of evidence*

2.3. Contribute lessons & guidance to national, regional and global community

2.1. Analyse and interpret NC accounts to provide useful stats and info

2.2. Make NC accounts and associated data and info widely available

*Co-create and collaborate to support implementation*

*Communi-cation with key stakeholders and partners*

3.2. Adopt, develop, standardise and document methodologies for producing NC accounts

3.1. Regularly produce and publish an integrated suite of NC accounts

4.2. Increase capacity and skills to produce, interpret and advance NCA

4.1. Gather, synthesize, and improve accounts-ready data

*Coordinate and managing the change process to effect individual & organisation change*

5.2. Collaborate to increase national & donor-funded support for NCA

5.1. Strengthen institutional arrangements to support NCA

Goal 1. NCA is used widely

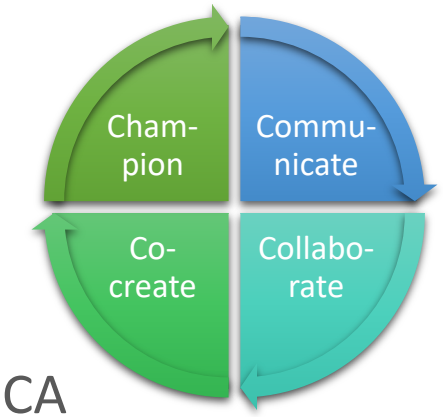
Goal 2.NCA offers credible evidence

Goal 3. Integrated suite of accounts

Goal 4. Capacity and data

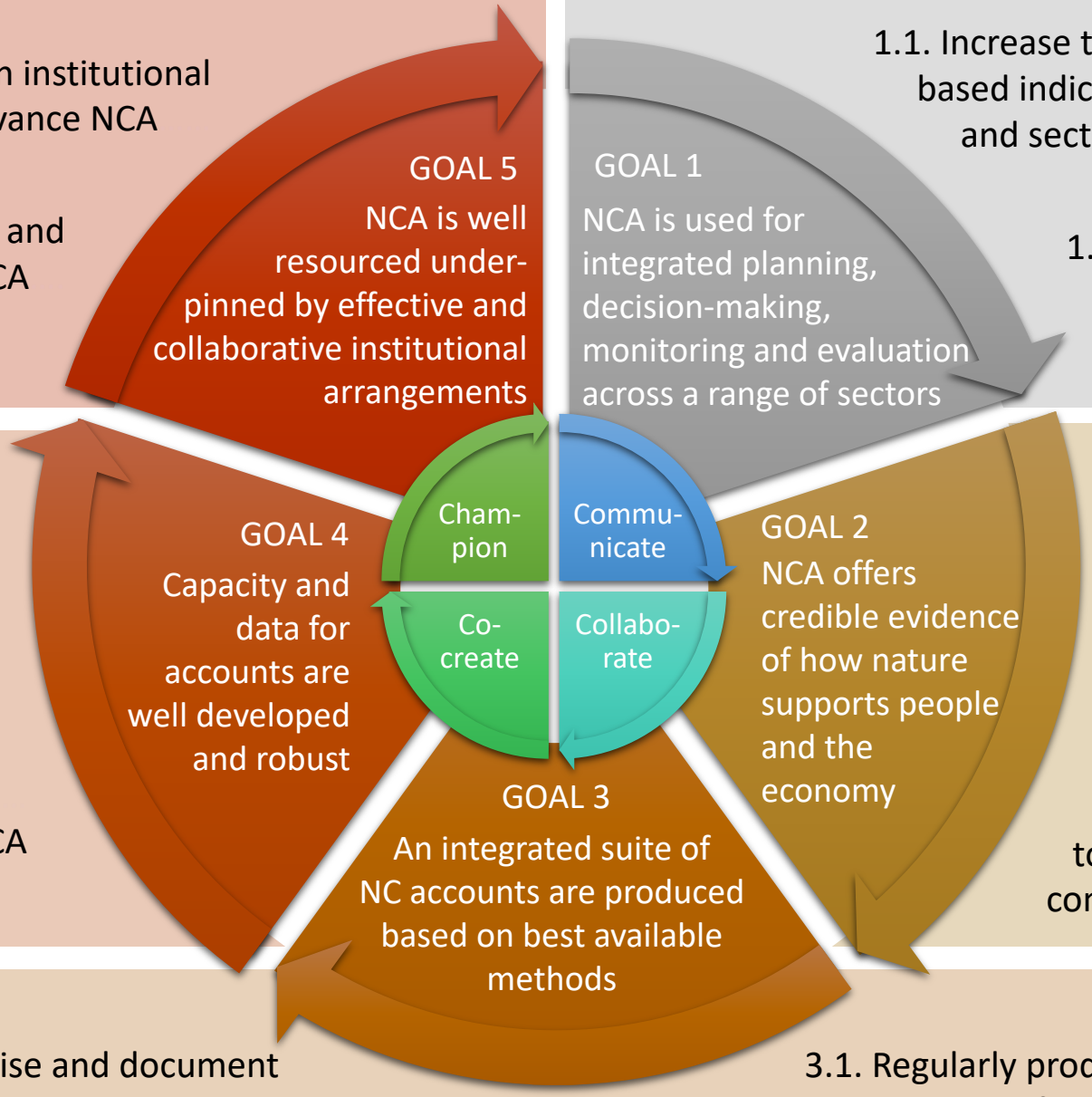
Goal 5. Collaboration strengthened

# Levers of change




- **Leadership to <u>champion</u> the use of NCA as a tool and source of evidence:** NCA champions to sustain the transformation process in their areas of influence.
- **<u>Communication</u> with key stakeholders and partners:** To be part of how we work, recognizing the social change process involved in an emerging, multi-disciplinary area of work and implementing this strategy.
- **<u>Cocreate and collaborate</u> in the improvement and development of natural capital accounts:** Given the importance of statistics relating to natural capital and the reality of limited financial and human resources available within government, collaboration and co-creation are key to improving data, agreeing on the use of standard concepts and definitions, collecting the right variables in line with international requirements and development accounts that meet user needs.
- **<u>Coordinate</u> and manage the change process to effect individual & organisation change:** There has to be a shift in the individual and organisation arrangements to support production of accounts-ready data, accounts AND to support use of evidence to make decisions and for continuous improvement, innovation and learning. ‘Learn and share’, ‘evaluate and change’ need to be built in.

# VISION: NCA is widely used to provide credible evidence for integrated planning and decision-making in support of the development needs of the country




1.1. Increase the use of natural capital accounts-based indicators and information for high-level and sectoral policies and planning

1.2. Stimulate public discourse with information from NCA

2.1. Analyse and interpret NC accounts to provide useful stats and info

2.2. Make NC accounts and associated data and information widely available

2.3. Contribute lessons & guidance to national, regional and global community

3.1. Regularly produce and publish an integrated system of NC accounts

3.2. Adopt, develop, standardise and document methodologies for producing NC accounts

4.1. Gather, synthesize and improve accounts-ready data

4.2. Increase capacity and skills to produce and advance NCA

5.1. Strengthen institutional arrangements to advance NCA

5.2. Collaborate to increase national and donor-funded support for NCA

# The NCA value chain



Effective and collaborative institutional arrangements


POLICY (analysis and formulation) + PLANNING (projections of future change)

interpretation












Developing priority natural capital accounts & strengthening effective statistical systems and institutional mechanisms

Source: Adapted from SANBI & Statistics South Africa (2018), UNSD (2002), and SEEA website (pyramid)


DATA PROVIDERS

CO-PRODUCERS

USERS


OTHER (e.g. funders, set standards)

Effective and collaborative institutional arrangements

| Data providers | Standardisation | Produce accounts | Interpretation | Users |
|---|---|---|---|---|
| DEA<br>DWS<br>DAFF<br>SANBI<br>WRC<br>CSIR<br>SAEON<br>DMR<br>Provinces<br>Others… | Data 'filtered' through various data quality standards, protocols, frameworks, best practice guidelines set by e.g. DRDLR, Stats SA. | Stats SA<br>SANBI<br>WRC<br><br>Others… | Co-production of knowledge in the interpretation of natural capital accounts and their policy implications (i.e. convening collaborative space for this with multiple stakeholders). | Ideally used by DPME, NPC, NT, other gov depts for national and international reporting, planning and decision-making. NCA for business (down the line). |

*Feedback: Standards affect data collection and curatorship.*

*Feedback: Needs for standardization (e.g. of basic spatial units) will be identified.*

*Feedback: Engagement with users will help inform interpretation (ensuring useful interpretation)*

Role played will also depend on the accounts in question. E.g. DEFF might be a data provider, co-producer and user in one case, and simply a user in another case.

*Indicative illustration of organisations involved in natural capital accounting value chain, and the feedback loops involved (enabled through collaboration and coordination).*

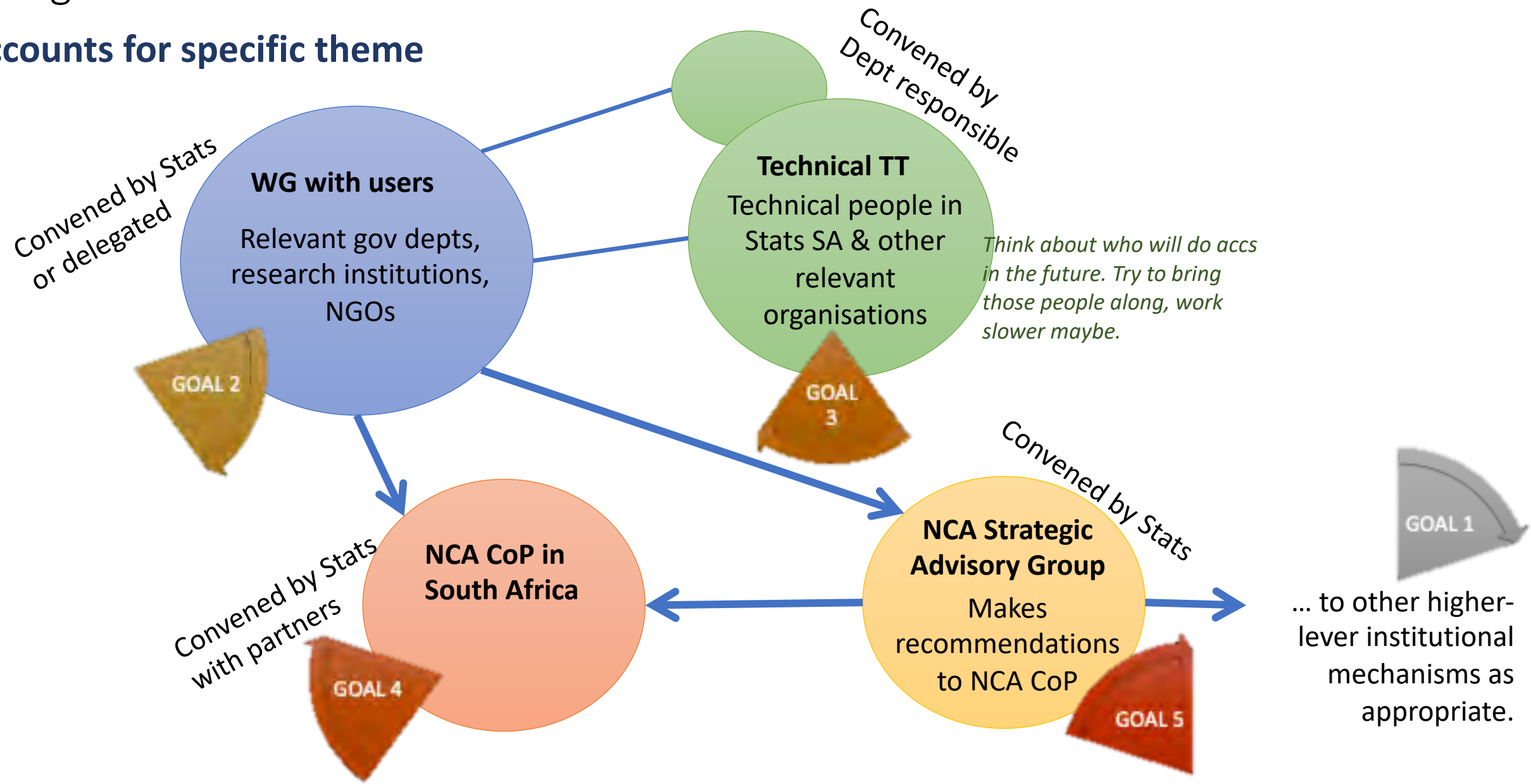
Source: SANBI & Statistics South Africa. 2018. Assessment report

# Role of DWS in NCA

| Accounts | Description | Data provider | Co-Producer | User | Other (e.g. funder, set standards) |
|---|---|---|---|---|---|
| **National Water Accounts** | **Physical flow accounts:** of water between the environment and the economy (recording abstraction of water by the economy, how water flows within the economy and the return flows of water back to the environment). Can include water emission accounts. | | ? | | |
| | **Physical asset accounts:** describe the hydrological cycle over an accounting period. Water stocks and their depletion over the accounting period are presented, with links to abstraction & consumption of water by the economy. | | ? | | |
| | **Economic accounts:** | | ? | | |
| **Catchment-scale water resource accounts** | **IWMI Water Accounting** system is a standardised method of providing spatial information on water depletion and withdrawal processes in complex river basins. Links land cover/use information and hydrological water balance info – helps understand linkages between land cover/use, EI and catchment water resources | | | | |
| **National River Ecosystem Accnts** | Ecosystem extent and condition accounts for rivers have been produced, producing the Ecological Condition Index as a key indicator.<br>Can be extended to include a full set of physical ecosystem accounts for rivers, including ecosystem service generation and use accounts | | | | |
| **National Wetland Ecosystem Accnts** | Future accounts. Physical accounts as above – ecosystem extent and condition, which could be expanded to include ecosystem service generation and use accounts. | | | | |
| **Accounts for Ecological Infrastr.** | Physical accounts for water-related ecological infrastructure (features in the landscape) being explored through the EI4WS Project | ES | | | |
| **Accounts for SWSAs** | Physical accounts for Strategic Water Source Areas including extent of protected areas, land accounts for SWSAs. Links to other social, environmental and economic information can be explored. | ES | | | |
| **Nat Estuary Ecosystem Acc** | Extent, condition and pressures | | | | |
| **Groundwater Accounts** | | | | | |

# Example of institutional mechanisms to support implementation and levers of change

## Accounts for specific theme

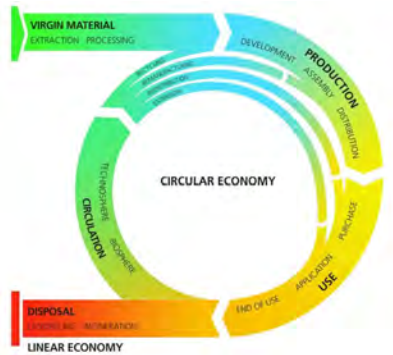


# Many related initiatives

- Many different types of accounts that can be developed


Natural Capital Accounting
Community of Practice Africa

Natural Capital
Finance Alliance
Finance sector leadership on natural capital




Global Ocean
Accounts Partnership

stats sa
Department:
Statistics South Africa
REPUBLIC OF SOUTH AFRICA

# In the strategy document & discussions today

Facilitator overview

**Note** that this is an indicative implementation plan associated with activities.

| GOAL 1. Goal statement | | | | | | |
|---|---|---|---|---|---|---|
| **Strategic objective** | **Output** | **Indicative activities** | **Funding scenario** | **Key role players** | **Timeframe** | **Resources** |
| **1.1 strategic objective statement** | **1.1.1.** Output (easily verifiable/ measurable, being a product/ deliverable or the like) | 1.1.1.1. Indicative activities | The NCA strategy has been developed so that it can be implemented under two different funding scenarios:<br>• **Low road activities**: can be undertaken with existing human & financial resources.<br>• **High road activities**: are only possible with additional resources. | Involved | Has this already started? When should it begin? | Refers to human or financial resources. Existing or estimated i.e. can also provide an estimation of budget required. |

What we wish to achieve?

What we wish to produce or deliver?

What we have to DO to deliver?

Is this something we can do now?

Who would like to be involved?

# Polling question

- Go to www.Menti.com and use the code 20 71 99 0

- You can use your phone or laptop to do this.

# Thank you

# Appendix 3. Introduction to goal-based discussions in breakaway groups

Appendix 3

# Introduction to goal-based discussions in breakaway groups

18 November 2020

# Smaller group discussion per Goal

- After a short break (10 min) we will begin the breakout groups (determined based on your selection when you registered).
- There will be two breakout sessions, one after another, but with a 15 minute break in between (this is to enable us to reallocate groups). Please stay connected.
- Each session will be approximately 55 min long.

# Facilitator groups for each goal


Thanks to our NCA champions from a range of institutions!

| Goal and short description | | Facilitator | Strategy support | Note takers |
|---|---|---|---|---|
| **Goal 1** | NCA is widely used | Mukondi Masithi, DEFF | Gerhardt Bouwer | Tshifhiwa Munyai, DEFF |
| **Goal 2** | NCA offers credible evidence | Prideel Majiedt, SANBI | Kiruben Naicker, DEFF | Thuli Mahlangu, SANBI |
| **Goal 3** | Integrated suite of accounts | Riaan Grobler, Stats SA | David Clark, UKZN CWRR | Jenifer Zungu, SANBI<br>Patrick O'Farrel |
| **Goal 4** | Capacity and data | Michelle Hiesterman, WRC | Rob Anderson, Stats SA | Brenda Mphakane, Stats SA |
| **Goal 5** | Resources and collaboration | Mmaphefo Tshwala, NBI | Robert Parry, Stats SA | William Speller, UN Environment |

*Aimee Ginsburg and Malik Dasoo will be in the wings.*

# Smaller group discussions

- We will take a short break now, when you return in 10 minutes you will automatically have been allocated to your breakout group.
- Please stay connected during the break.
- If you experience any difficulties you can private message Malik Dasoo, talk with your facilitator, or press the ‘Ask for help’ button to call the Zoom host to where you are.
- We look forward to your inputs, insights and improvements!
- We will see each other in plenary again just before the meeting closes.

# Appendix 4. Next steps for the National Natural Capital Accounting Strategy

Appendix 4

# National Natural Capital Accounting Strategy

## Stakeholder workshop

19 November 2020

# Overarching reflections

- Reflection on what is going to make the difference for successful implementation and what your role or contribution might be.
  - We've delved into the detail, but what will make the difference?

- Could link back to the levers of change – how we communicate, collaborate, cocreate and champion this work.

# Next steps

- Additional comments to Robert Parry (RobertP@statssa.go.za) by 30 November

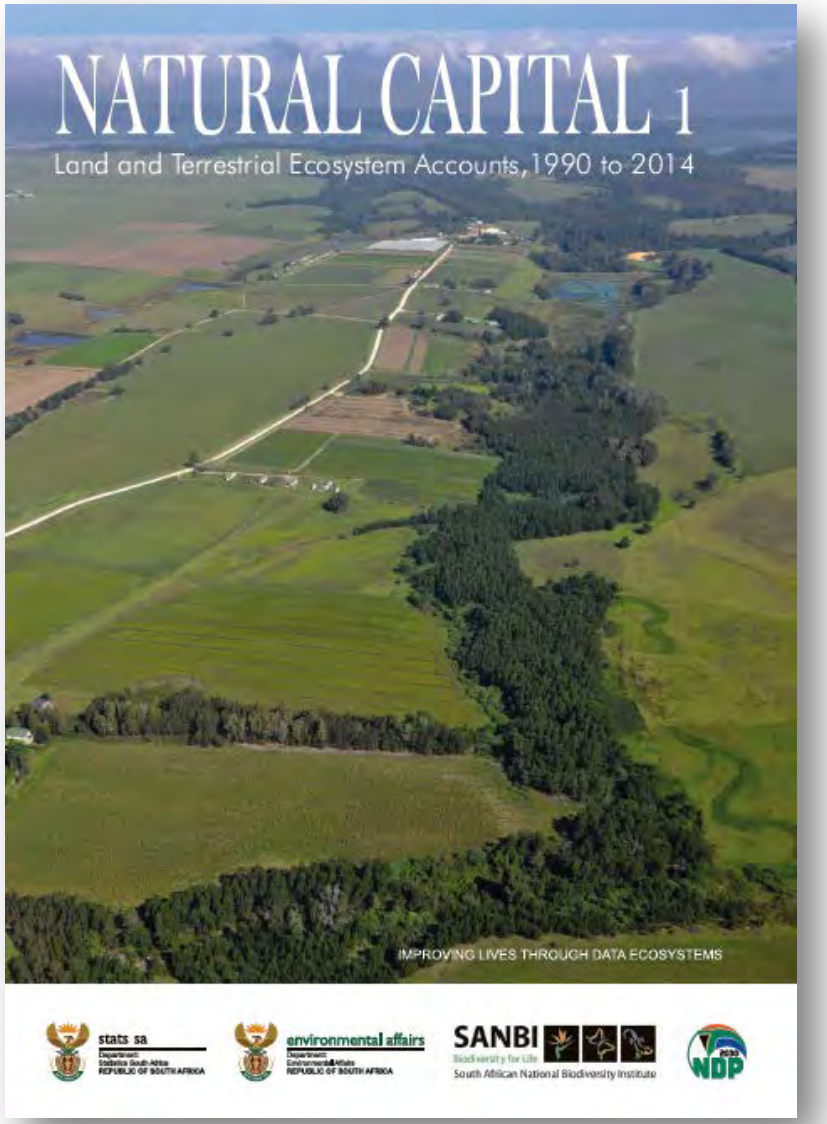
- Minutes of the workshop to be shared with participants with presentations (early Dec 2020)

- Integrate comments into a final version of the Strategy (Dec-Feb)
  - Some follow up discussions

# Next steps

- NCA Strategic Advisory Group meeting to review final draft (February 2021)
- Final draft submitted into Stats SA internal processes (March 2021)
- Enters into Stats SA processes for publication in 2021/22 FY

# Land and Terrestrial Ecosystem Accounts, 1990 to 2014




- Release date scheduled:
  - 2 December 2020 @13h00 on the Stats SA website
- First publication in the *Natural Capital* series that Stats SA is launching.
- *(Strategy in action! ☺ This speaks to Output 3.1.12 in the Strategy!)*