



KWAZULU-NATAL
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA



KWAZULU-NATAL PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK (PSDF)

KWAZULU-NATAL PROVINCIAL GROWTH AND DEVELOPMENT STRATEGY (PGDS)

21 JULY 2020

SECTORAL THEMED WEBINARS: ENVIRONMENT

GROWING KWAZULU-NATAL TOGETHER

PSDF ENVIRONMENTAL OUTCOMES WEBINAR

AGENDA

1. Welcome and Opening Remarks (Mrs. Martie Milne)
2. Purpose of the Meeting (Mr. Riaan Thomson)
3. The Role of Stakeholders (Mr. Riaan Thomson)
4. Background to the PSDF (Mr. Sibongiseni Maseko)
5. Identification of Environmental Issues (Mrs. Marita Thornhill)
6. Stakeholder Inputs (Mr. Sibongiseni Maseko)
7. The Way Forward (Mrs. Riaan Thomson)
8. Closing Remarks (Mrs. Martie Milne)



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WELCOME AND OPENING REMARKS

MRS. MARTIE MILNE

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The structure and form of settlements continue to significantly aggravate the dominant social problems of poverty, inequality and unemployment.



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PURPOSE OF THE MEETING AND PARTICIPATION

MR. RIAAN THOMSON

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FIVE SECTORAL THEMES / FOCUS AREAS

16/07



SOCIAL

- Population distribution and growth projections
- Demographic profile and trends
- Migration patterns
- Access to basic services
- Access to social amenities

ECONOMY



17/07

- Provincial economic profile
- Socio-economic profile and trends
- Land reform programme

21/07



ENVIRONMENT

- Climate change
- Agricultural potential.
- Land cover
- Nature conservation.
- Bio-diversity.
- Hydrology
- Geomorphology

INFRASTRUCTURE



22/07

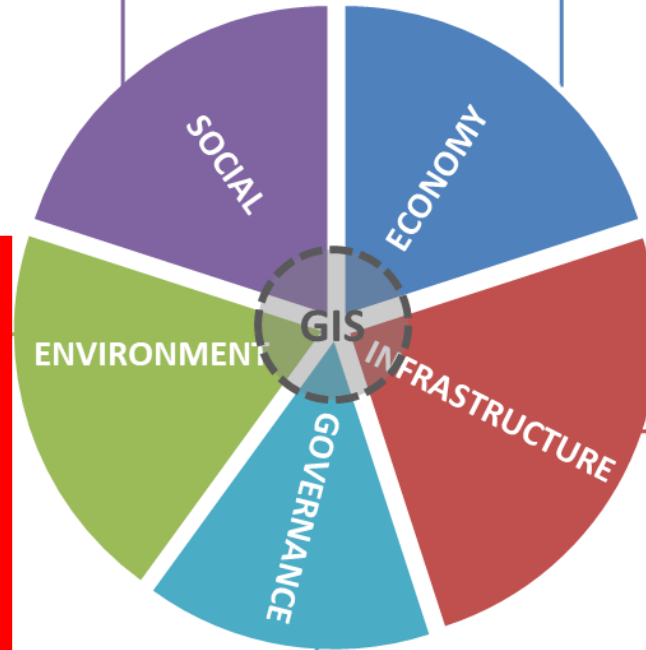
- Spatial structure.
- Settlement pattern
- Land use pattern.
- Physical Infrastructure.
- Transport and movement network.
- Human settlement.
- Land ownership

23/07



GOVERNANCE

- Spatial planning systems and procedures.
- Institutional framework
- Policy and legislation



Feedback Session on 29 July 2020

SECTOR ROLEPLAYERS SPECIFICALLY INVITED

- KZN Office of the Premier
- KZN Provincial Planning Commission
- KZN Dept. of CoGTA
- KZN Dept. of Economic Development and Environmental Affairs
- KZN Dept. of Transport
- KZN Treasury
- KZN Dept. of Agriculture and Rural Development
- KZN Dept. of Human Settlements
- Dept. of Agriculture, Land Reform and Rural Development
- Dept. of Water and Sanitation
- All local and district municipalities
- Ezemvelo KZN Wildlife
- Wildlife and Environment Society South Africa
- South African National Biodiversity Institute
- International Association for Impact Assessment (SA)
- Umgeni Water
- uMhlathuze Water
- uThukela Water
- Amafa aKwaZulu-Natali
- iSimangaliso Wetland Park
- University of KwaZulu-Natal
- Durban University of Technology




PURPOSE OF THE MEETING

1. To **introduce** the PSDF process to sectoral stakeholders.

2. To **obtain inputs** from Stakeholders:
 1. Identify additional **roleplayers and sources of information** towards the Status Quo analysis.
 2. Share insights into specific **issues experienced and/or solutions required**.
 3. Express what the **PSDF could include** in order to assist in addressing these.

3. To ultimately assist in **defining the problem** statement and contribute **towards the spatial development vision** which will guide the formulation of the PSDF.

PARTICIPATING IN THE DISCUSSION

| 1. Meeting Chat Room  | 2. Online Form Inputs  | 3. Verbal inputs  |
|---|--|--|
| <p>Interact on the meeting chat and post any inputs on important issues or solutions to consider.</p> <p>Please remember to select to post to Attendees and Panelists in the chat.</p> | <p>Go to:</p> <p>https://tinyurl.com/PSDF-Environmental</p> <p>Six open questions relating to the identification of economic development issues as well as options and opportunities.</p> <p>Form is already open and will remain open for multiple inputs until 28 July 2020.</p> | <ol style="list-style-type: none">1. Please raise your hand.2. The host will allow you to talk.3. Unmute your device.4. Please make concise and specific inputs on the identification of issues or opportunities to pursue as part of the PGDS / PSDF processes. |

Email: PSDF@kzncogta.gov.za

<http://www.kzncogta.gov.za/psdf/>



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PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK (PSDF)

MR. SIBONGISENI MASEKO

GROWING KWAZULU-NATAL TOGETHER

THE KZN PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK

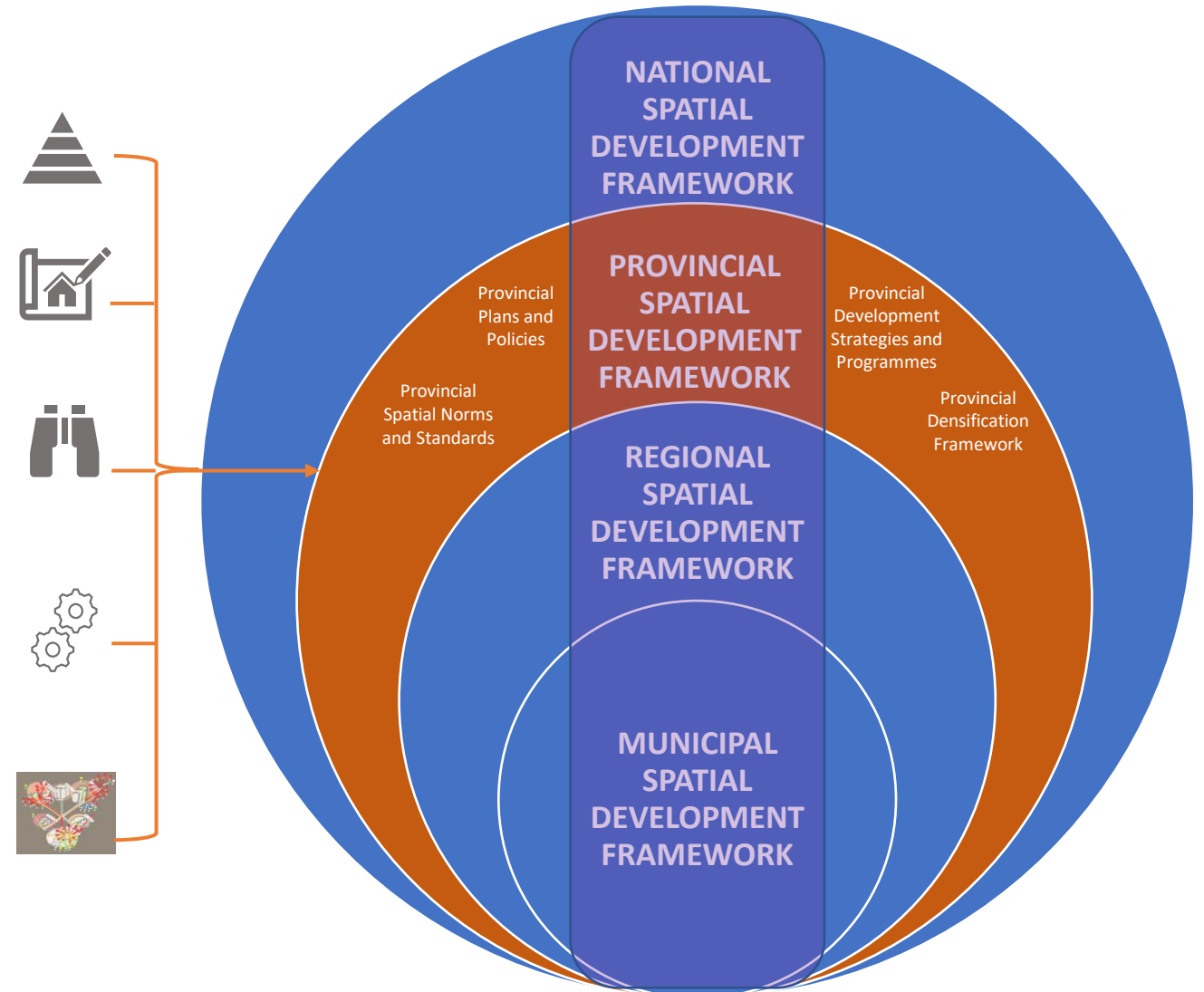
The SPLUMA introduces a hierarchical system of SDFs.

It provides for horizontal and vertical alignment SDFs.

The PSDF will present a provincial spatial development vision and programme.

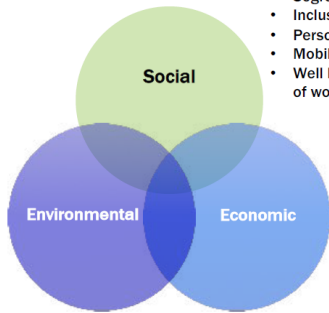
It will guide the Provincial Executive in the execution of provincial executive powers pertaining to land development and use.

It will address spatial issues and challenges facing KZN including colonial and apartheid spatial structure.



GUIDING PRINCIPLES

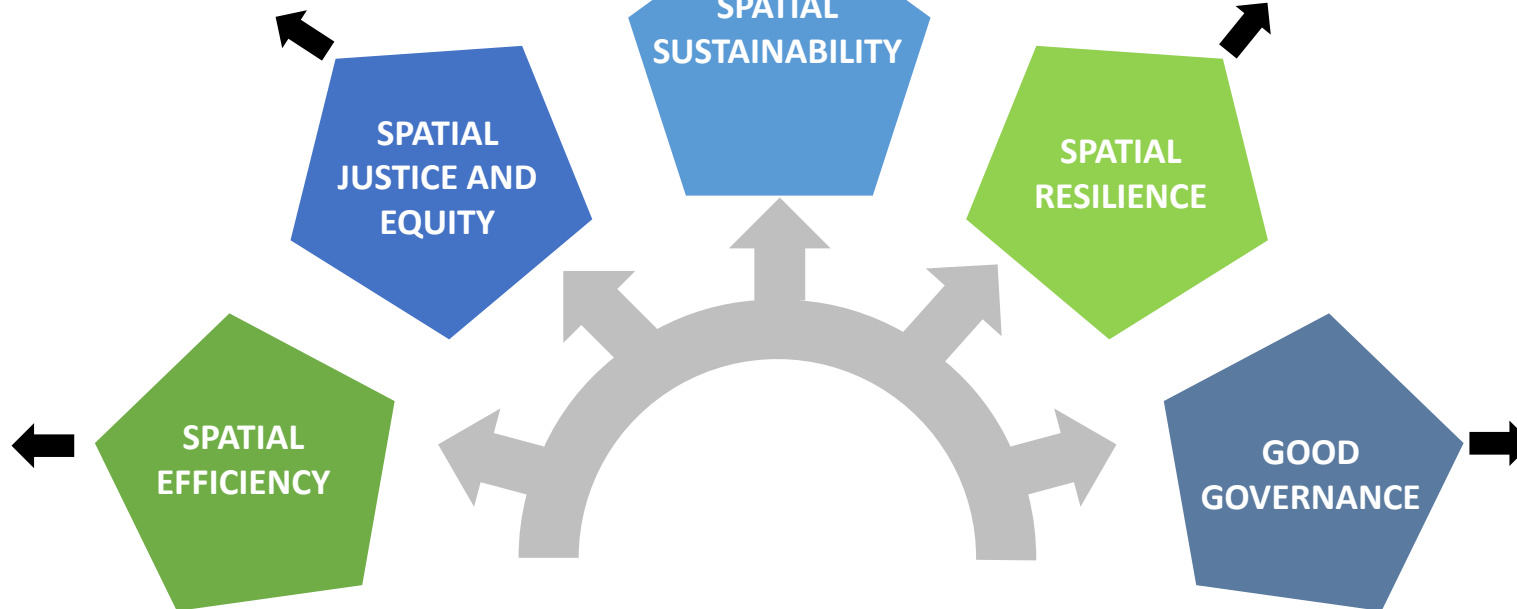
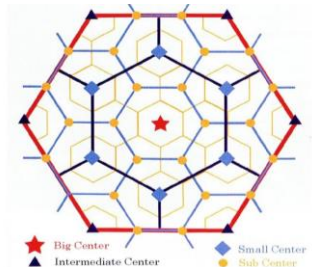
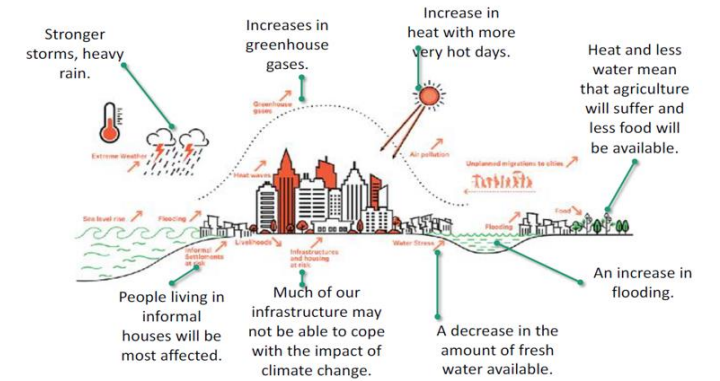
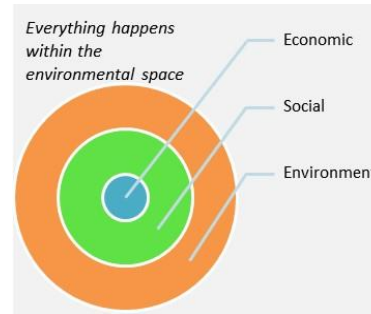
Balancing social, economic and environmental aspects



- Segregation, Integration,
- Inclusive spaces
- Personal safety
- Mobility and basic services
- Well located integrated settlements close to places of work

- Access to resources such as land for production, housing as an investment or collateral for finance
- Proximity as a resource
- Space to conduct economic activity and create jobs
- Lowering the cost of doing business

- Mitigating and adapting to climate change
- Assessing risks to climate change
- Ensuring that vulnerable households are protected
- Quality living environments

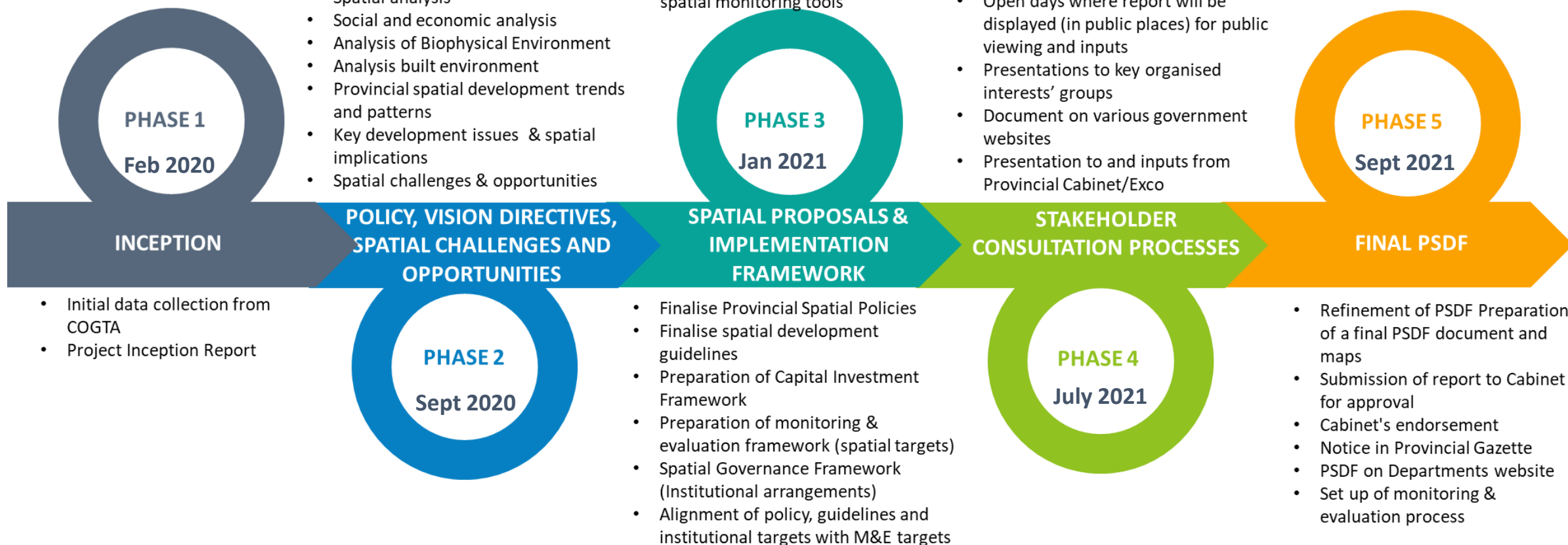


PSDF APPROACH

- Legislative and policy context
- Formulate draft provincial spatial vision
- Formulate SMART PSDF objectives
- Monitoring & Evaluation (Baseline Review)
- Spatial analysis
- Social and economic analysis
- Analysis of Biophysical Environment
- Analysis built environment
- Provincial spatial development trends and patterns
- Key development issues & spatial implications
- Spatial challenges & opportunities

- Final draft vision and objectives
- Spatial concepts
- Spatial strategies and policies
- Preparation of Draft Consolidated PSDF
- Preparation of a Final Draft PSDF Report
- Monitoring & Evaluation- establish indicators and targets
- Monitoring & Evaluation- develop spatial monitoring tools

- Finalise Final Draft PSDF for public participation
- Publication of a notice on the Provincial Gazette and Media informing the public about the draft PSDF and inviting comments
- Public workshops with a range of stakeholders
- Open days where report will be displayed (in public places) for public viewing and inputs
- Presentations to key organised interests' groups
- Document on various government websites
- Presentation to and inputs from Provincial Cabinet/Exco



Organised and structured stakeholder engagement throughout the planning process

PROPOSED STRUCTURE OF THE PSDF

01

Policy Context And Vision Directives

- Policy And Legislative Context
- Summary and implications
- Towards A Provincial Spatial Vision

02

Spatial Challenges And Opportunities

- Socio-economic trends and patterns
- Analysis of the Built Environment
- Analysis of the Biophysical Environment
- Cross Cutting Dimensions/concerns
- Synthesis of spatial issues, challenges and opportunities

03

Spatial Proposals

- Spatial vision
- Conceptual Framework
- Scenario development
- Spatial development objectives
- Spatial strategies, proposals and policies

04

Implementation Framework

- Provincial spatial policies
- Spatial development guidelines
- Capital investment framework
- Institutional arrangements

05

Consolidated PSDF

- Executive Summary
- Policy Directives
- Spatial Vision and objectives
- Synthesis of spatial issues, challenges and opportunities
- Spatial proposals
- Implementation Framework
- Monitoring and Evaluation system.



KWAZULU-NATAL PROVINCE

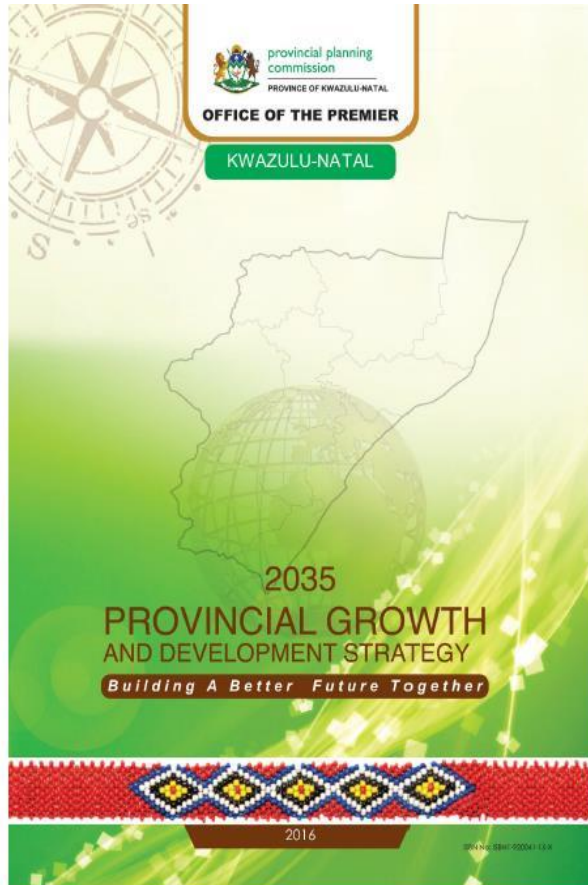
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IDENTIFICATION OF PROVINCIAL ENVIRONMENTAL ISSUES

MRS. MARITA THORNHILL

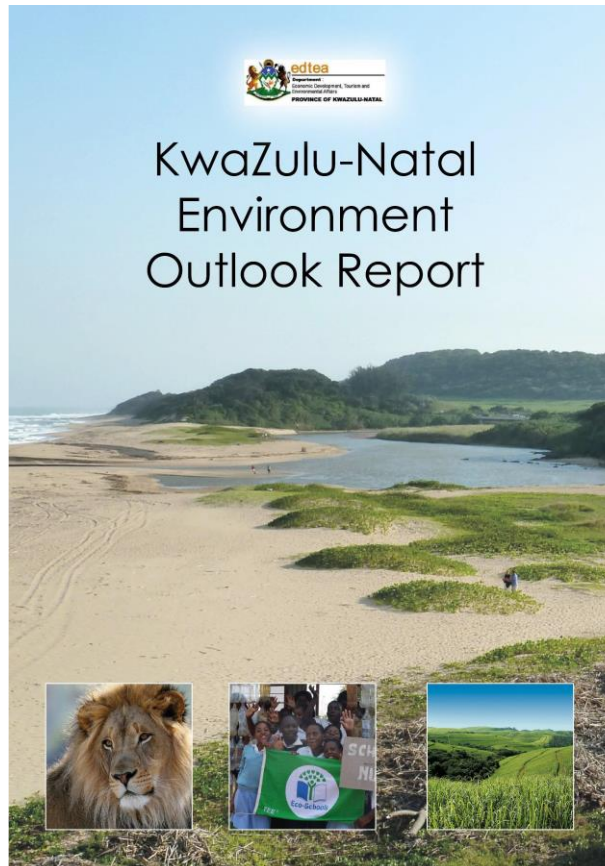
ISSUES THAT MAY AFFECT GROWTH & DEVELOPMENT IN KZN



The departure point for the environmental vision of the PSDF is to reflect on the environmental sustainability issues contained in the PGDS.

1. Threats associated with **climate change** and KZN's exposure, vulnerability and capacity to adapt.
2. Loss and unsustainable use of limited **arable agricultural land**, and concerns about **food security**.
3. A decline in the quantity, availability and quality of surface water resources, with concerns about **water security**.
4. Impacts associated with **biodiversity loss**, with concerns about the continuous degradation of ecological infrastructure.
5. The over utilisation and vulnerability of **coastal and marine resources**.
6. Energy security and the need to invest in **renewable energy**.

WHAT IS HAPPENING TO KZN'S ENVIRONMENT?



The KZN Environmental Outlook Report (2017) serves as a strategic policy informant for future planning & decision-making. It offers the following take home message to reveal the strategic sustainability challenge for the PSDF:

The state of the province's environment is **declining overall** with minor environmental gain since the previous reporting cycle (2004). This trend has taken place in context of:

- Considerable progress in environmental governance during the same reporting period;
- Significant socio-economic challenges;
- Increasing threats about the potential disastrous impacts of climate change; and
- The risk of a future scenario where the current trends are likely to remain.

WHAT IS HAPPENING TO KZN'S ENVIRONMENT?

The EOR makes use of a set of **108 indicators** across **11 themes** to monitor change.

THEMES

1. Climate change
2. Air quality & Atmosphere
3. Land Modification
4. Freshwater Resources
5. Biodiversity & Ecosystem Health
6. Marine & Coastal Resources
7. Economics
8. Human Settlements
9. Waste
10. Energy
11. Governance

CLIMATE CHANGE: TRENDS & ISSUES OF VULNERABILITY

Climate change is complex, cross-cutting issue, with many interlinked causes and effects which introduce a lot of uncertainty and risk into the policy landscape.

As a result the need to mitigate the province's significant contribution to global greenhouse gas emissions and to improve the adaptive capacity of KZN's ecosystems and human settlements have become more urgent.

| Indicators | Trends |
|--|------------|
| The number of sectoral plans that have incorporated climate change | Increasing |
| The number of plans from traditional authorities that have incorporated climate change. | Increasing |
| Precipitation (in mm) | Variable |
| Temperature (in degrees Celsius) | Increasing |
| Sea-level rise (in mm/year) | Increasing |
| The cost of damage (in million Rand) and loss of lives caused by extreme weather events | Increasing |
| Level of GHG emission (particularly atmospheric carbon dioxide (CO ₂)) | Increasing |
| The percentage uptake by farmers of climate-smart agriculture and ecosystem-based adaptation | Increasing |

Where are our spatial priorities?

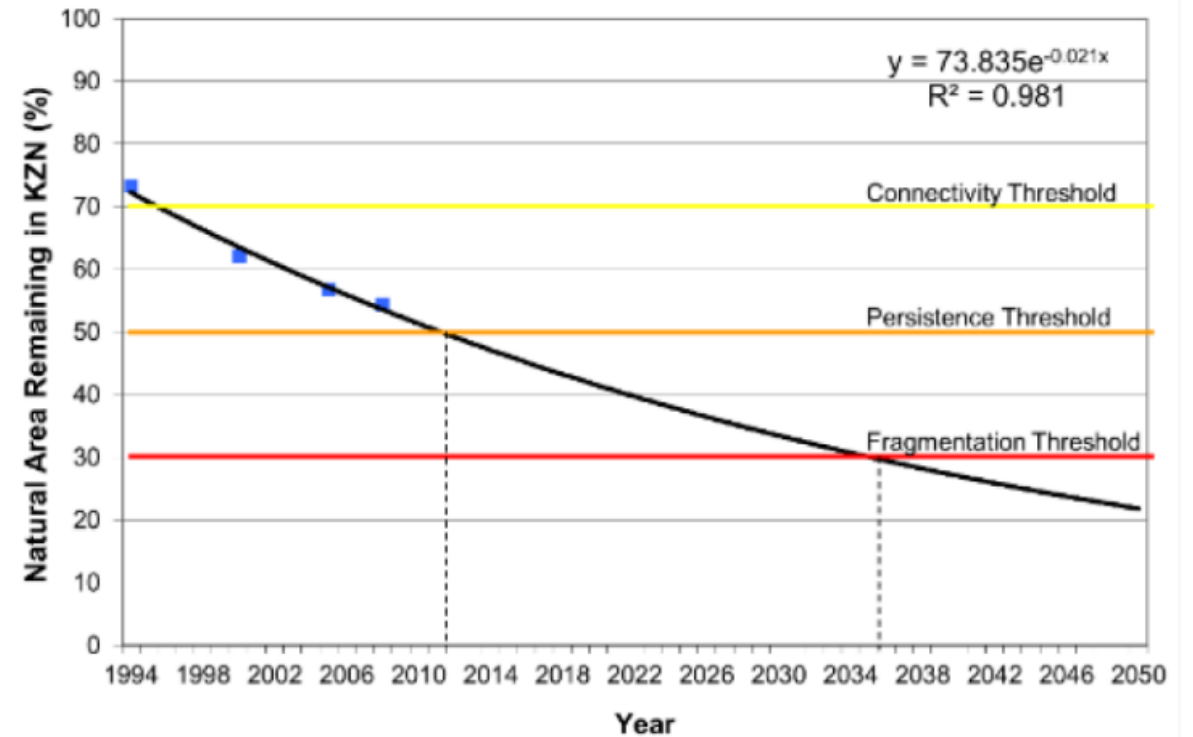
LAND COVER TRENDS

Since 1994 the natural landscape in KZN has transformed at an **average rate of 1.2% per annum**. Assuming habitat transformation continues in the same manner, it is estimated that **by 2050, 45% of the landscape will remain in a natural state**.

At this rate natural areas will become too small and isolated from each other to continue to maintain viable populations of species.

| Land in a natural state | | |
|-------------------------|------|------|
| 1994 | 2011 | 2050 |
| 73% | 53% | 45% |

This will ultimately lead to species extinction and the complete loss of critical ecosystem functions.



(Jewitt, 2014)

Land is our most important natural resource.

The interactions between the components of land create the essential resources that society uses as its 'life support system'.

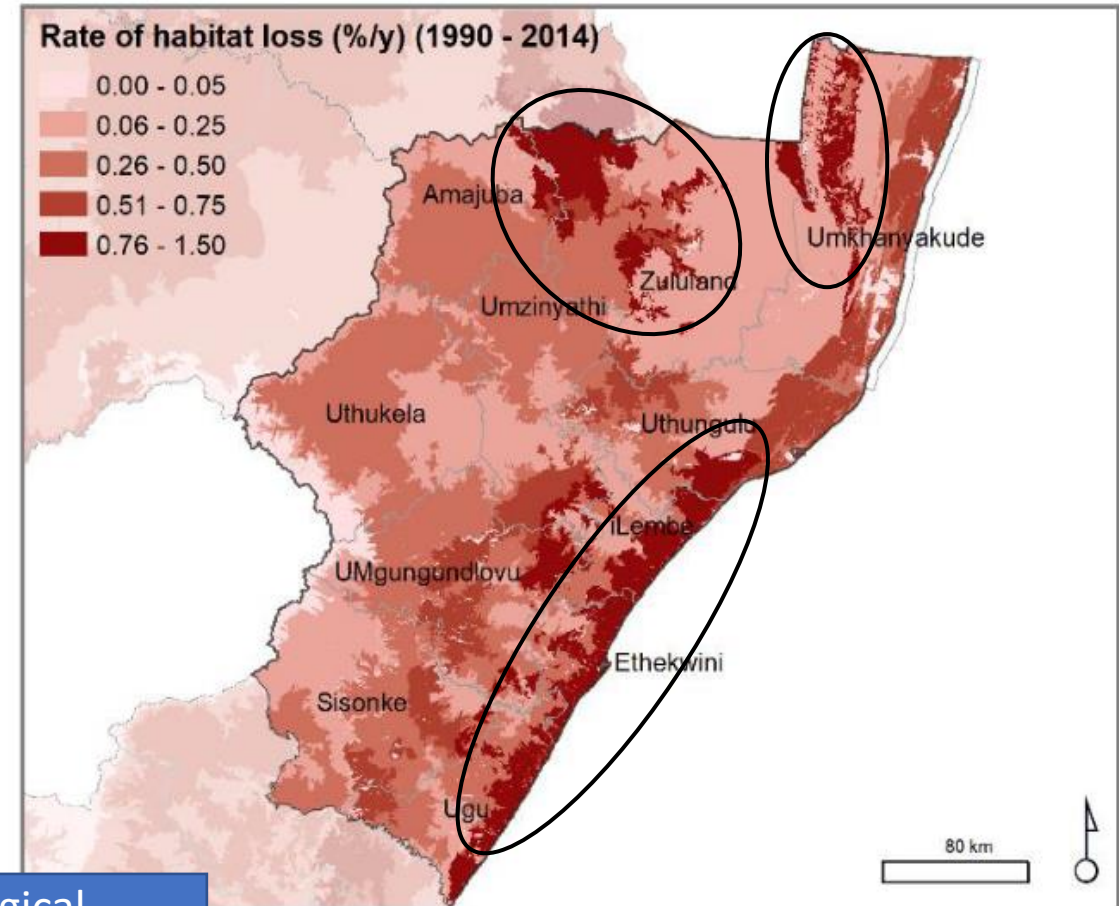
It is also the departure point for translating issues of spatial resilience for the PSDF.

HABITAT LOSS & RESILIENCE

With the **rate of change** in land cover/use the future of KZN is likely to be characterised by:

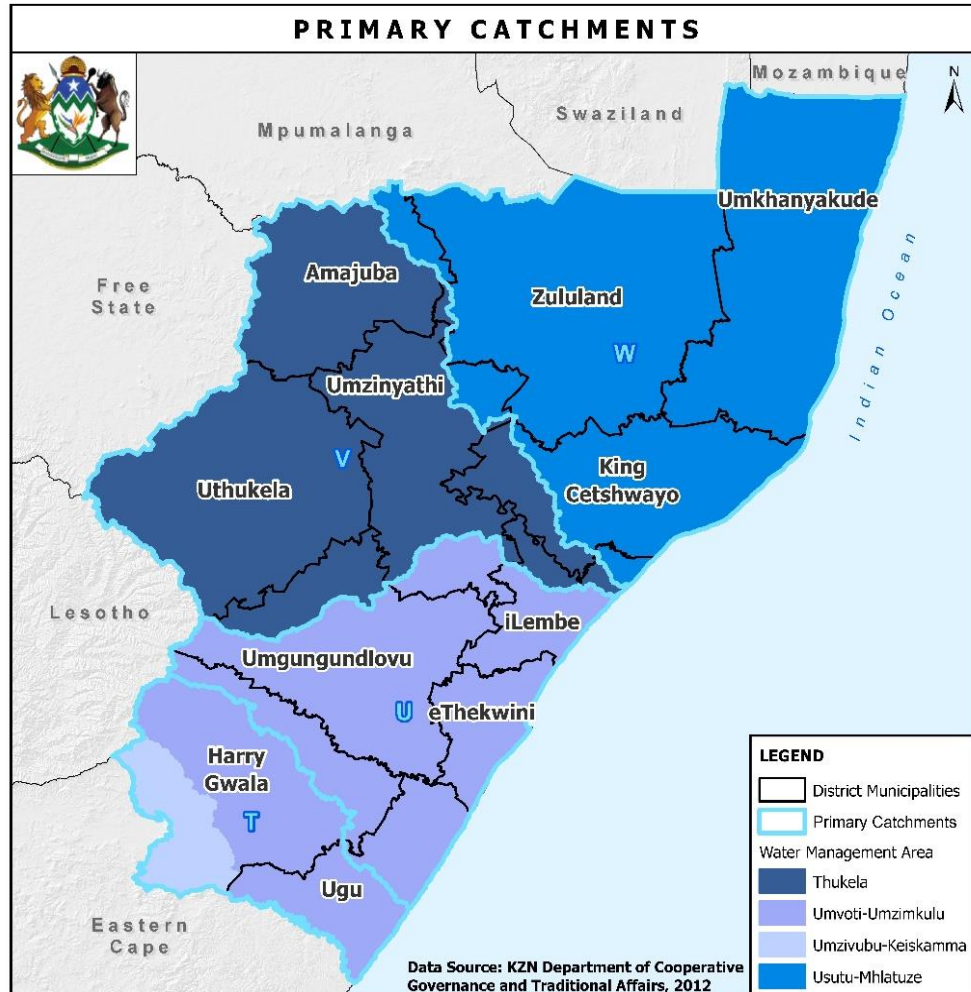
- Increased habitat loss.
- Compromised ecosystem functioning within both terrestrial and aquatic systems.
- Implications for
 - **the provision of freshwater,**
 - maintenance of natural nutrient cycles,
 - protection of soils,
 - maintenance of fodder resources.
- Reduced resilience to external shocks, such as drought and floods.
- Increases human vulnerability.

How do we reduce the rate of habitat loss/build socio-ecological resilience?



(SANBI, 2018)

WATER SECURITY: WHAT IS AT STAKE?

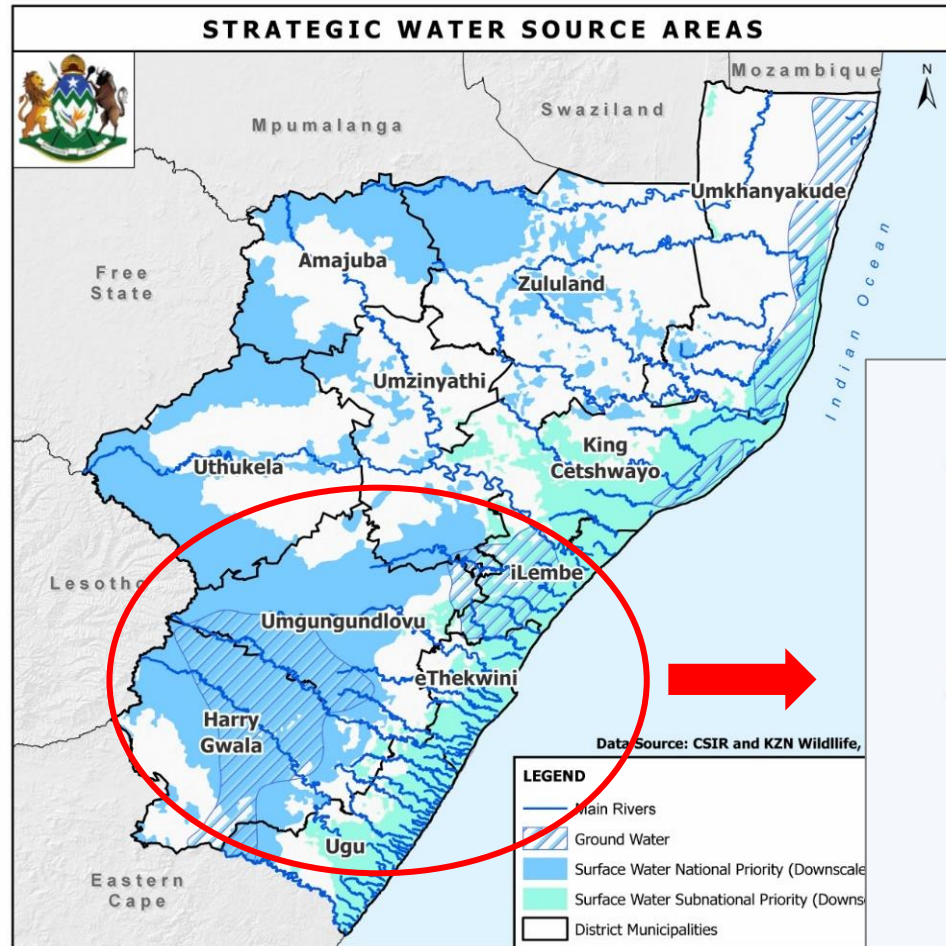


Water demand is exceeding availability in certain catchments.

| Catchment | Available | Required | Balance |
|---------------------|-----------|----------|---------|
| Pongola | 806 | 369 | 437 |
| Kosi Bay | | | |
| Mkuze | 120 | 78 | 42 |
| Mmfolozi | 106 | 102 | 4 |
| Mkomasi | 31 | 99 | -68 |
| Mhlatuze | 282 | 242 | 40 |
| Mtunzini & Matikulu | | | |
| Upper Thukela | 394 | 425 | -31 |
| Bushman's | 137 | 149 | -12 |
| Buffalo | | | |
| Mooi | 128 | 137 | -9 |
| Lower Tugela | 79 | 93 | -14 |
| Mvoti | 86 | 118 | -32 |
| Mlazi | | | |
| Lovu | | | |
| Mgeni | 414 | 504 | -90 |
| Mdloti | | | |
| South Coast | 25 | 41 | -16 |
| Mzimkulu | 16 | 50 | -34 |
| Mtamvuna | | | |

Maintenance of ecological infrastructure is critical.

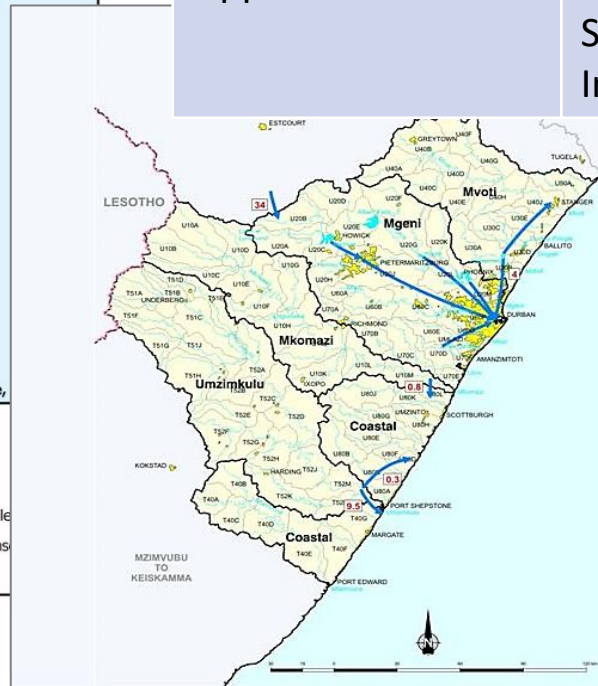
WATER SECURITY: WHERE DO WE FOCUS AND WHY?



(WRC, 2018)

MVOTI TO UMZIMKULU CATCHMENTS: 'Driving the economy'

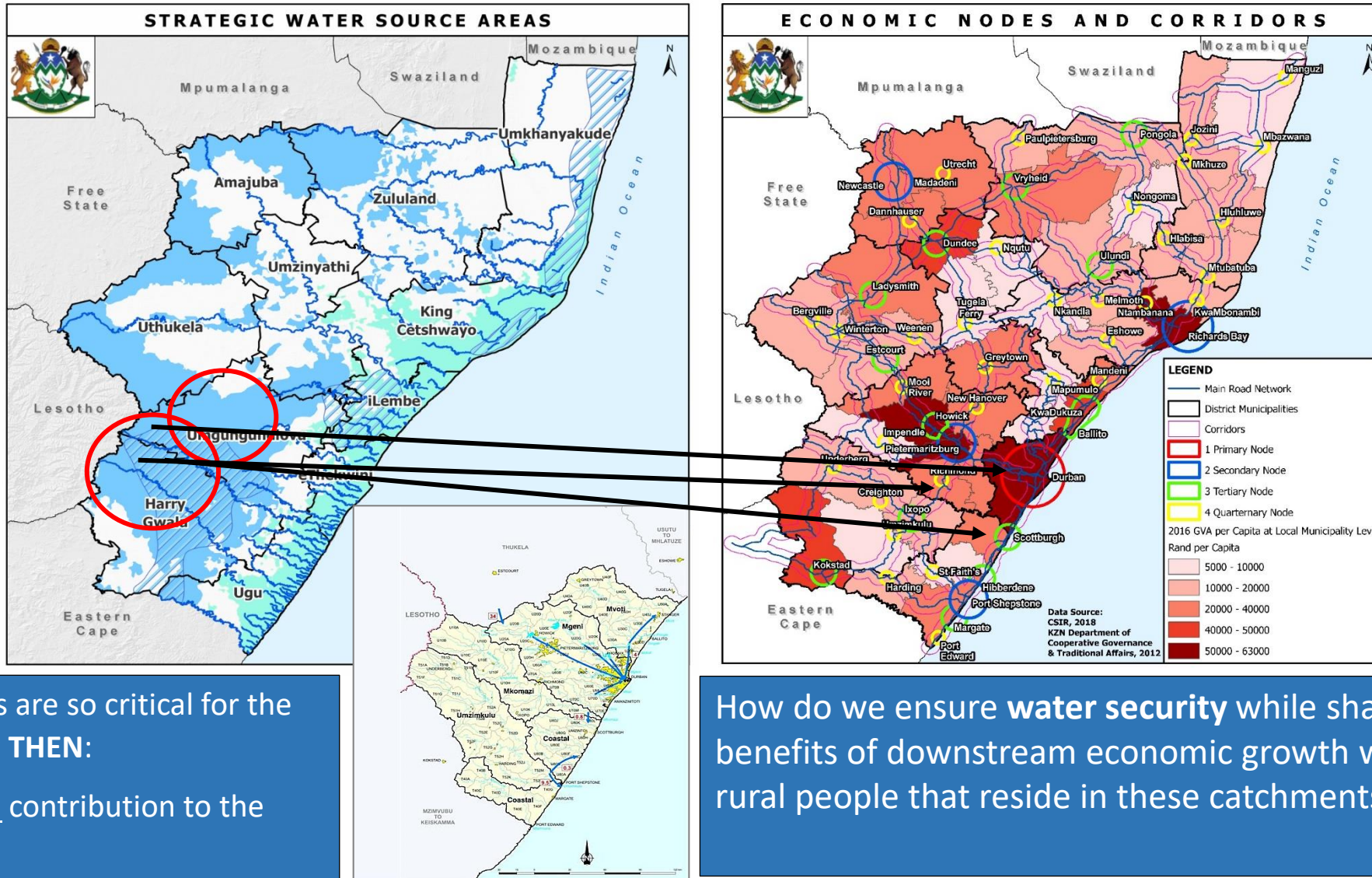
| | |
|------------------|---|
| uMgeni Catchment | Midmar Dam |
| Upper Mooi | Spring Grove Dam |
| Upper Umkonaas | Planned: Smithfield Dam (approx. 28 billion) Impendle Dam (50yr demand) |



(DWS, 2018)

The Mvoti to Umzimkulu catchments are especially significant as it provides water to the Durban and Pietermaritzburg areas.

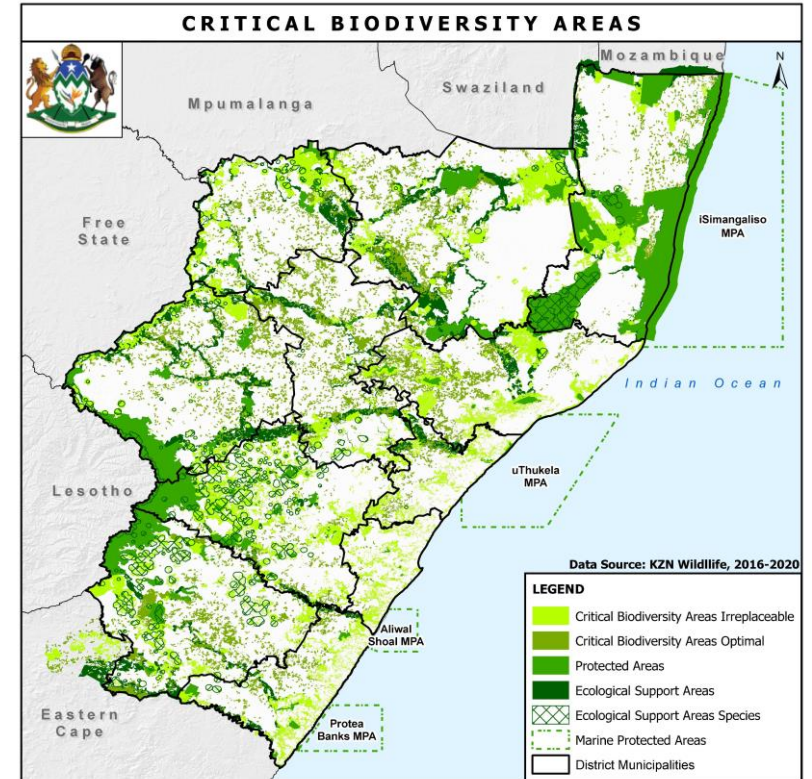
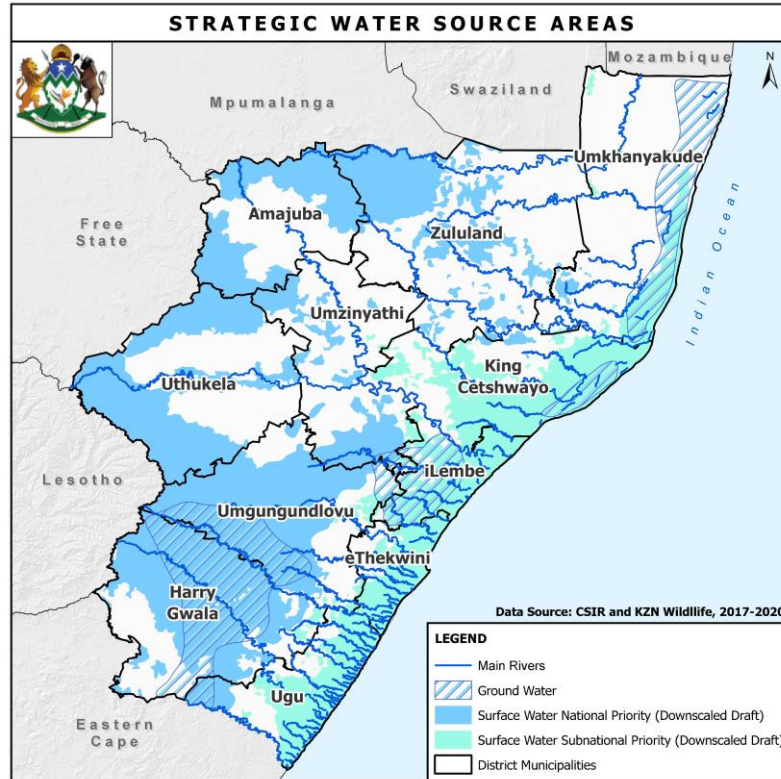
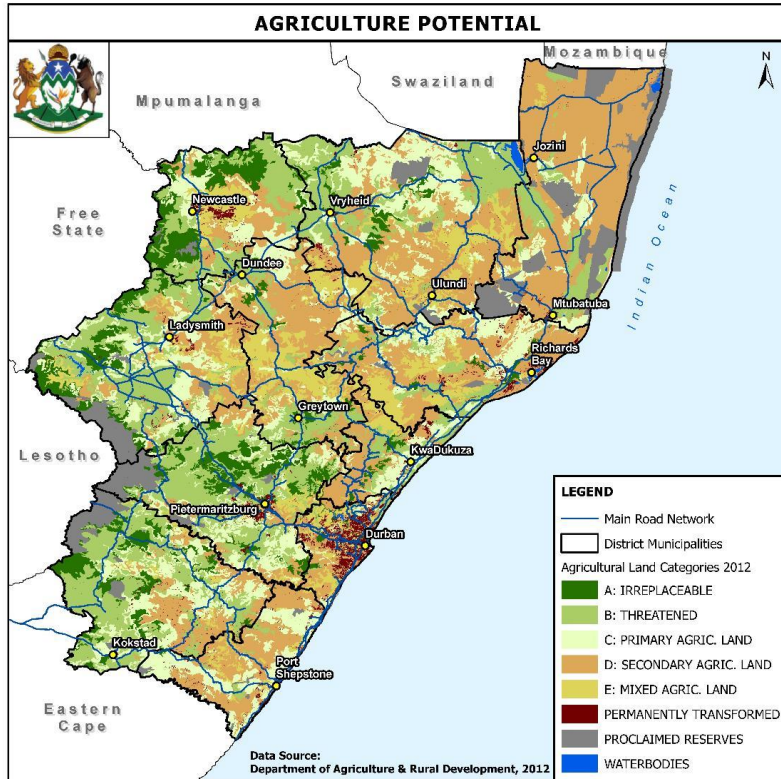
CRITICAL QUESTIONS



IF these catchments are so critical for the provincial economy THEN:
What is their actual contribution to the economy?

How do we ensure **water security** while sharing the benefits of downstream economic growth with the rural people that reside in these catchments?

DESIRED OUTCOMES



Food security

Water security

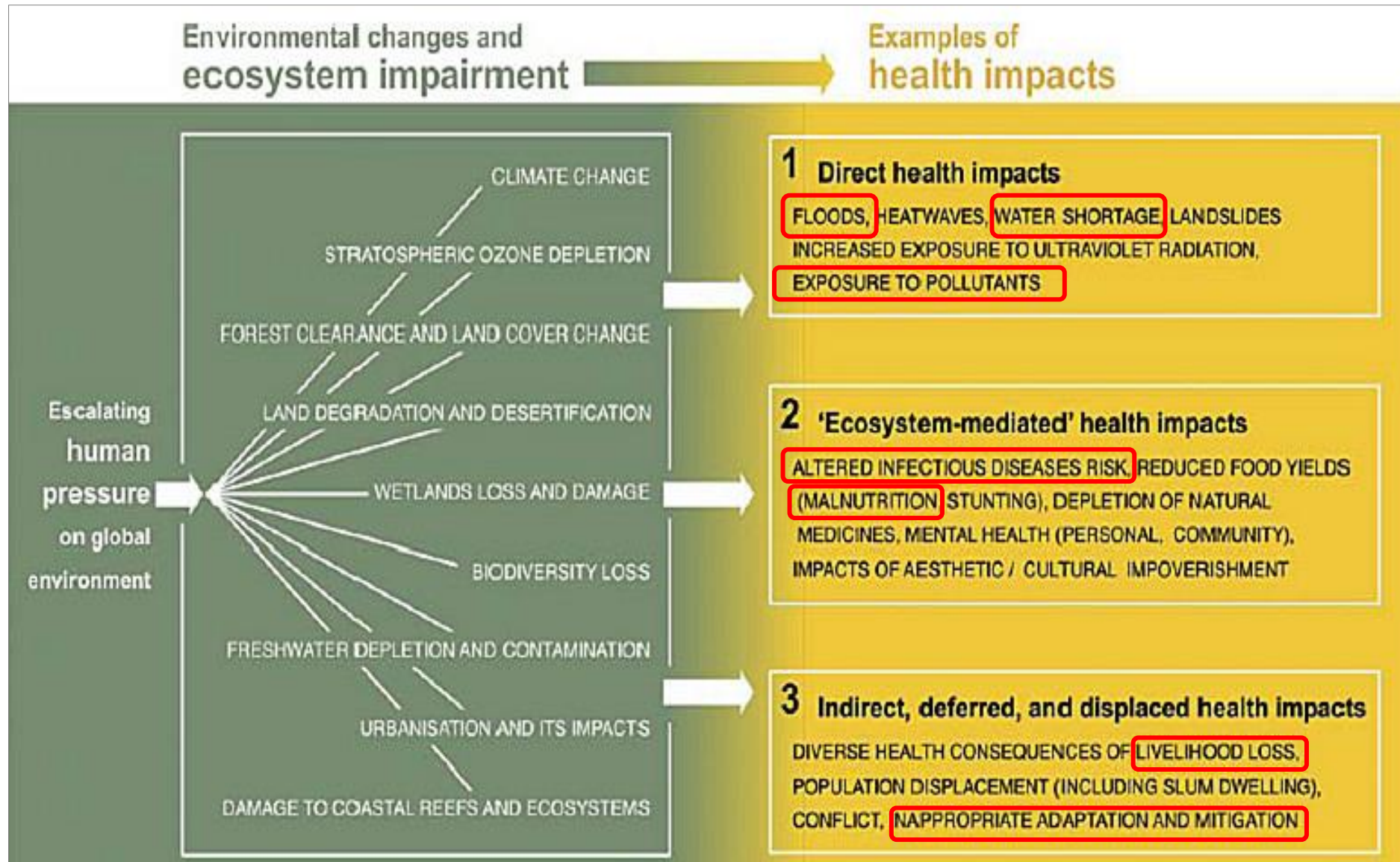
Ecological infrastructure



PSDF STRATEGIC CHALLENGE

How do we decouple economic growth and development from environmental degradation?

HUMAN HEALTH AT THE FOREFRONT OF CONCERN



CHALLENGES TO CONSIDER - 1

How do we through the PSDF:

1. Halt/reverse the environmental trends while we attend to the socio-economic needs of the province?
2. Build sufficiently resilient socio-ecological settlements that will be able to adapt to environmental change?

CHALLENGES TO CONSIDER -2

How do we through the PSDF:

1. Increase food production when:

- Arable land is being lost
- Ecosystems are losing their resilience
- Water is scarce

2. Ensure water security when:

- The ecological infrastructure that must help produce water is under pressure

3. Actively promote the green economy

- For the benefit of rural communities
- In which sectors
- Where?



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WAY FORWARD

<https://tinyurl.com/PSDF-Environmental>

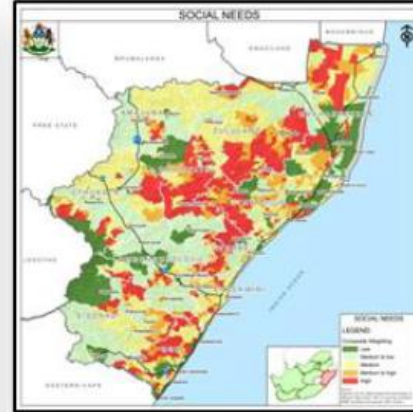
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COMPOSITE ENVIRONMENTAL SENSITIVITY



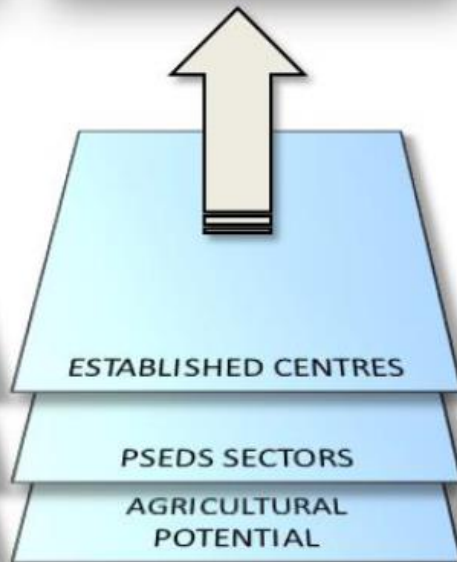
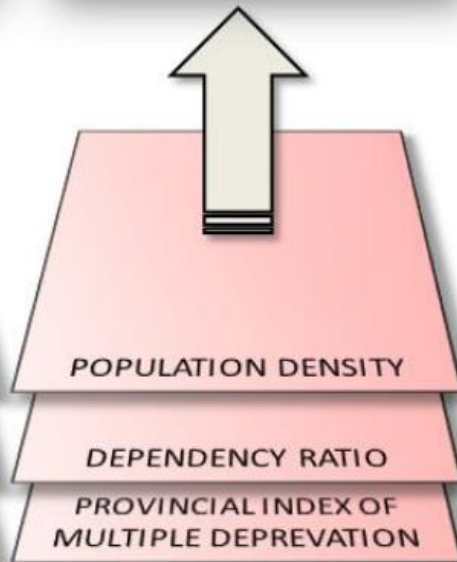
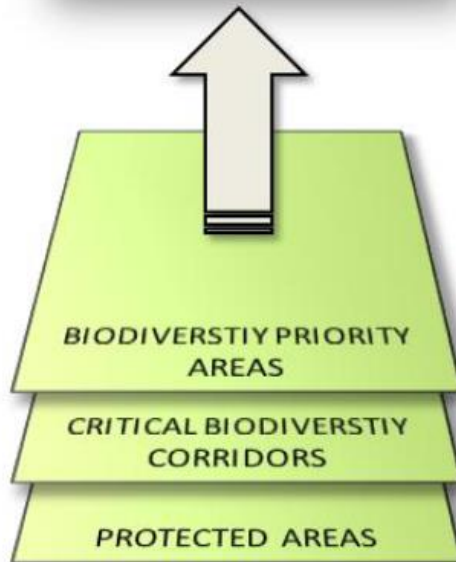
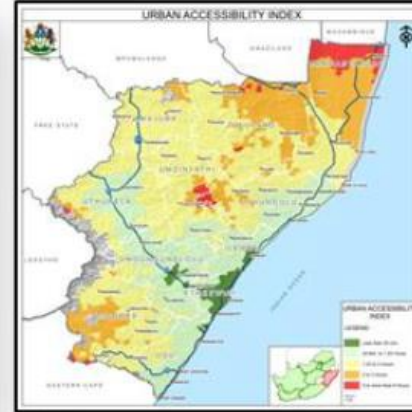
COMPOSITE SOCIAL NEEDS



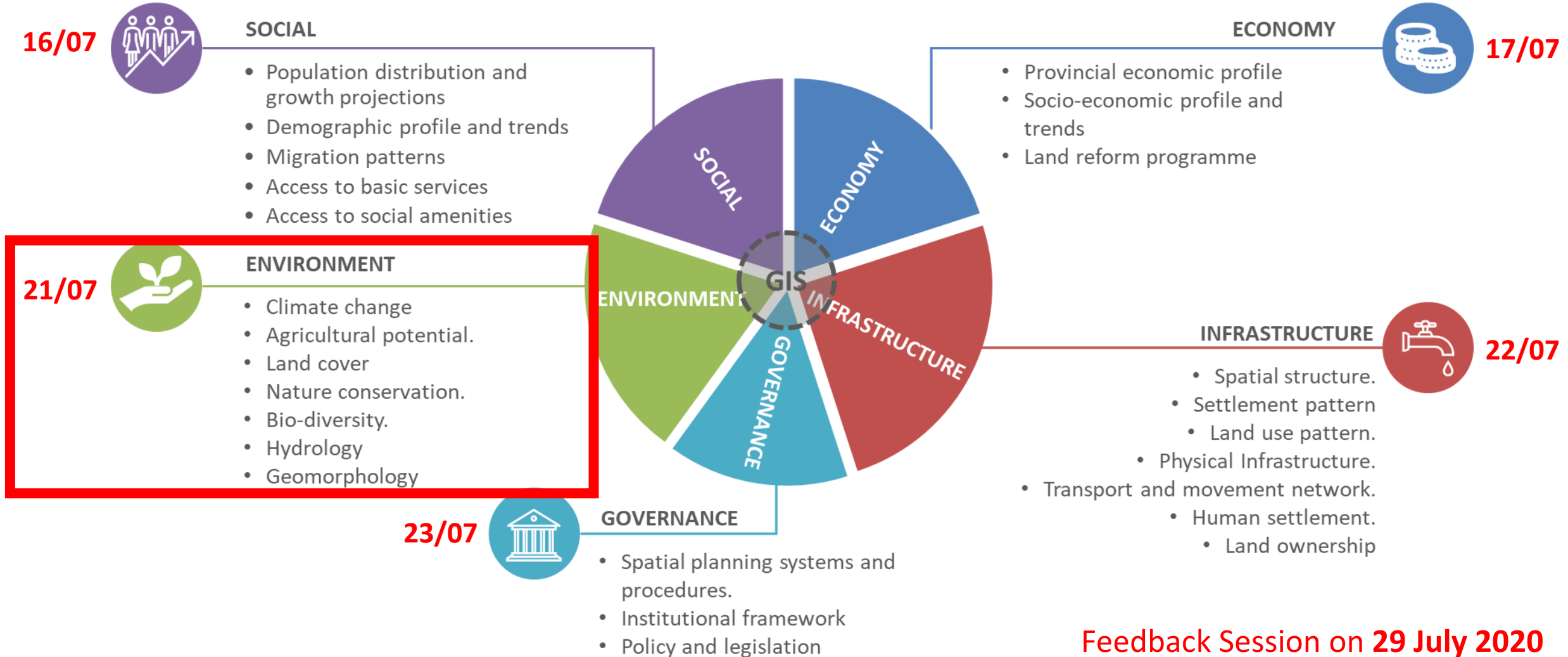
COMPOSITE ECONOMIC POTENTIAL



COMPOSITE ACCESSIBILITY



FIVE SECTORAL THEMES / FOCUS AREAS



Feedback Session on 29 July 2020

TO REGISTER AS AN INTERESTED AND AFFECTED PARTY, PLEASE VISIT THE
FOLLOWING WEBSITES OR REGISTER VIA EMAIL

PSDF

Please visit our website at
<http://www.kzncogta.gov.za/psdf/>

Inputs and suggestions can be emailed to:
Email: PSDF@kzncogta.gov.za

Ms Amanda Zungu and Mr Sphelele Mhlongo
Contact no: 033 355 6428

<https://tinyurl.com/PSDF-Environmental>

PGDS

Please visit our website at
www.kznppc.gov.za

Inputs and suggestions can be emailed to:

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CLOSING REMARKS



THANK YOU