

Technical & policy segment

Biodiversity Related Risks in South Africa

1. Nature-Related Risks

Biodiversity loss poses significant risks to financial systems. They can affect a country's economy, and the financial sector. Hence, adapting world economies to biodiversity-loss related risks is essential.

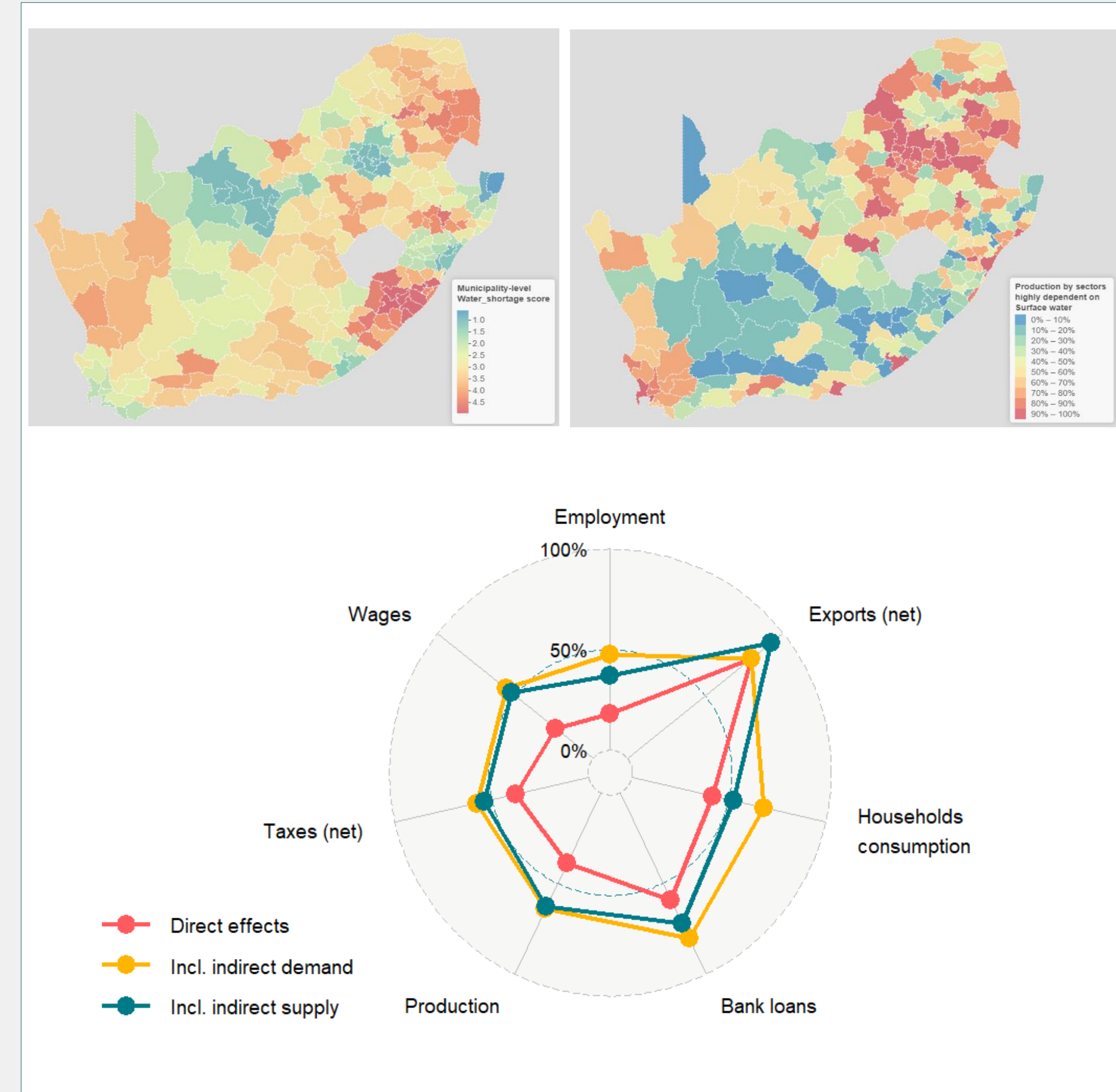
There are two kinds of nature-related risks (NRRs):

- **Physical risks** arise from the degradation of ecosystem services, such as the decline of pollinating insects. This decline can reduce agricultural yields, leading to income losses that can create financial instability when loans go unpaid.
- **Transition risks**, on the other hand, stem from shifts toward a biodiversity-friendly (nature-positive) economy. Changes in consumer behavior, such as increased demand for organic products, can force companies to overhaul their production methods and investments. These companies, especially if heavily indebted, may struggle to repay loans, posing risks to financial institutions.

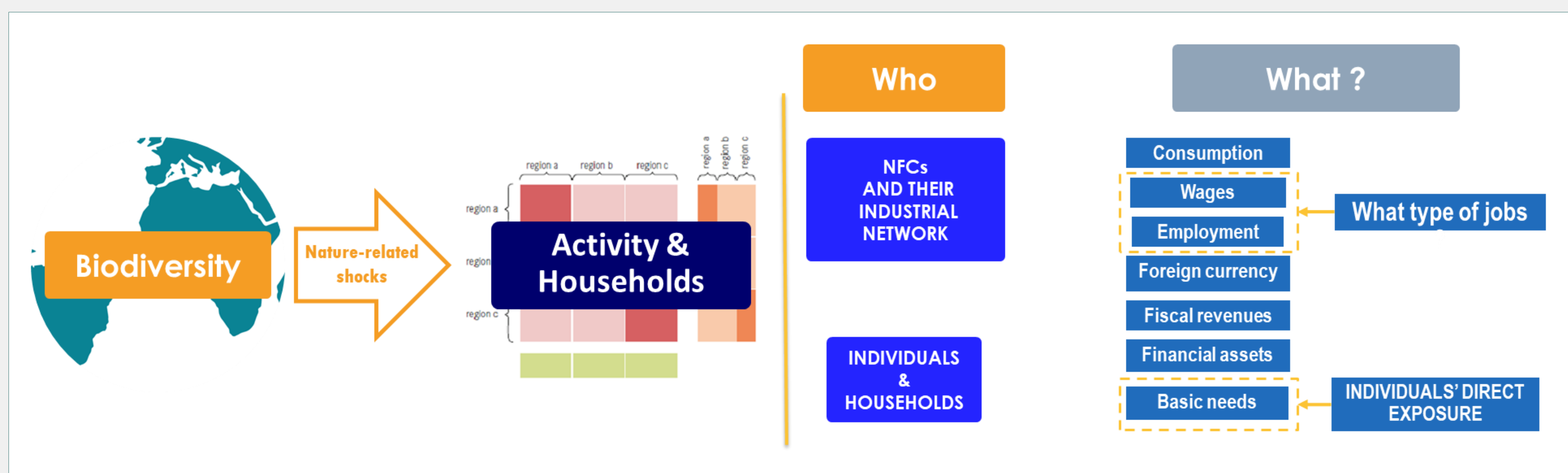
How to capture nature related risks for different stakeholders and different scales?

- By combining ecological and socio-economic data & methods to build a comprehensive and multidimensional diagnostic

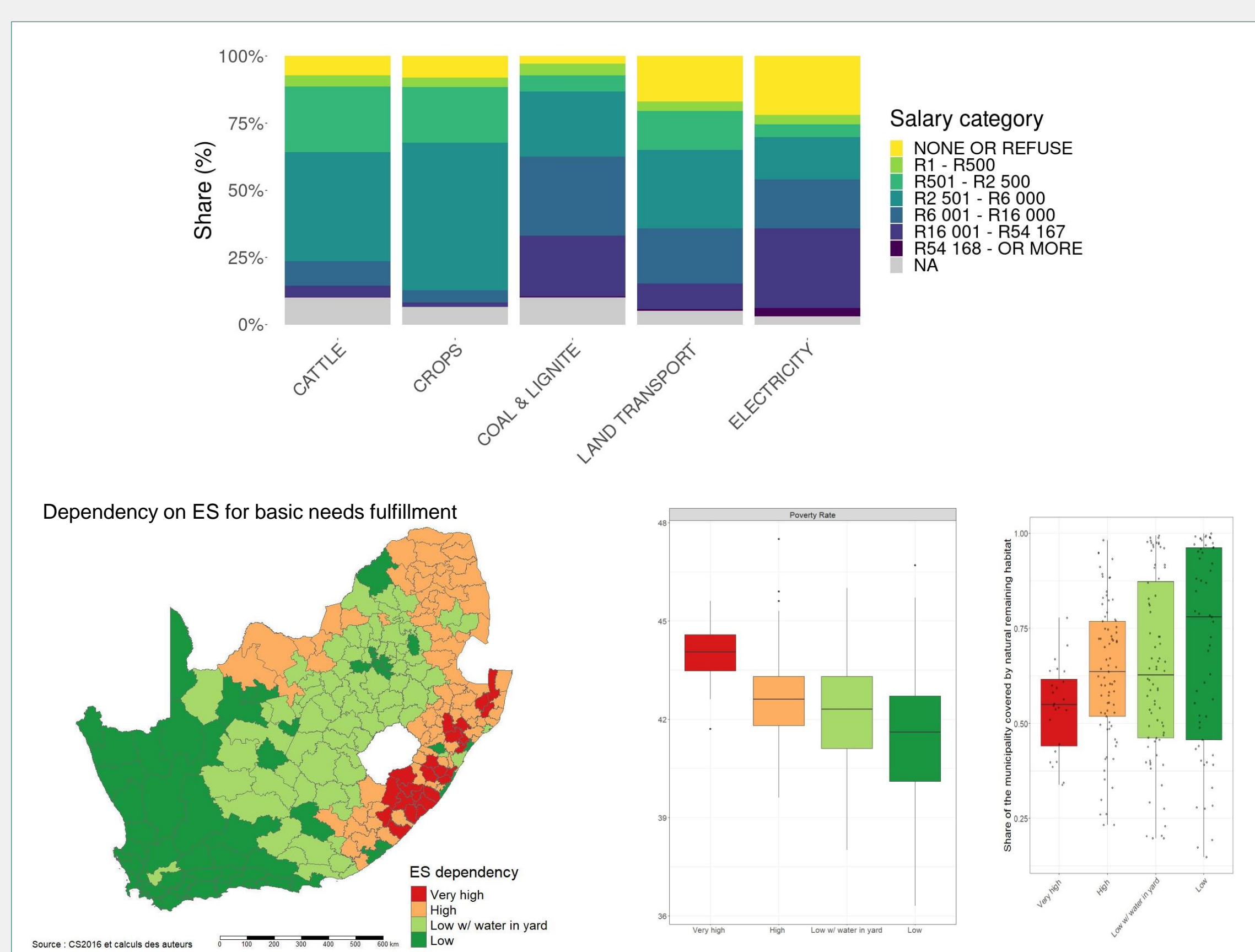
2. Economic vulnerabilities



3. General framework



4. Social impacts



5. Key lessons learned

SA is economically **exposed** and **vulnerable** to NRRs

- While 38% of total production is exposed, 10% is vulnerable to water-shortage
- While 80% of SA exports are exposed, 22% are vulnerable to water-shortage

NRRs could have important **social consequences**:

- 60% of jobs in agriculture sector is low-wage employment and 75% of jobs in Crop agriculture & Cattle raising sectors are very low skilled jobs
- Municipalities very dependent to nature have a higher poverty rate and a relatively low integrity of natural habitat



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I work in ecological macroeconomics, with a focus on biodiversity related risks



Scan to access the kiosk documentation & further references