

Strategic Environmental Assessment for Shale Gas Development

SANBI Biodiversity Planning Forum

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In brief

- R12.5-M over 24 months commissioned by DEA
- South African government has made high-level public commitments to shale gas exploration
- If the exploration phase yields successful deposits, government may well consider development of those resources at a significant scale
- South Africa needs be in a position to make the decisions relevant to that choice in a responsible manner



Guiding principles

- **Salience:** Address all the material issues and be fit for purpose
- **Legitimacy:** Authorised and seen to be an independent, transparent and fair process
- **Credibility:** Evidence-based process. Integrative Specialist Teams, expert and stakeholder review



SEA objectives

Objectives:

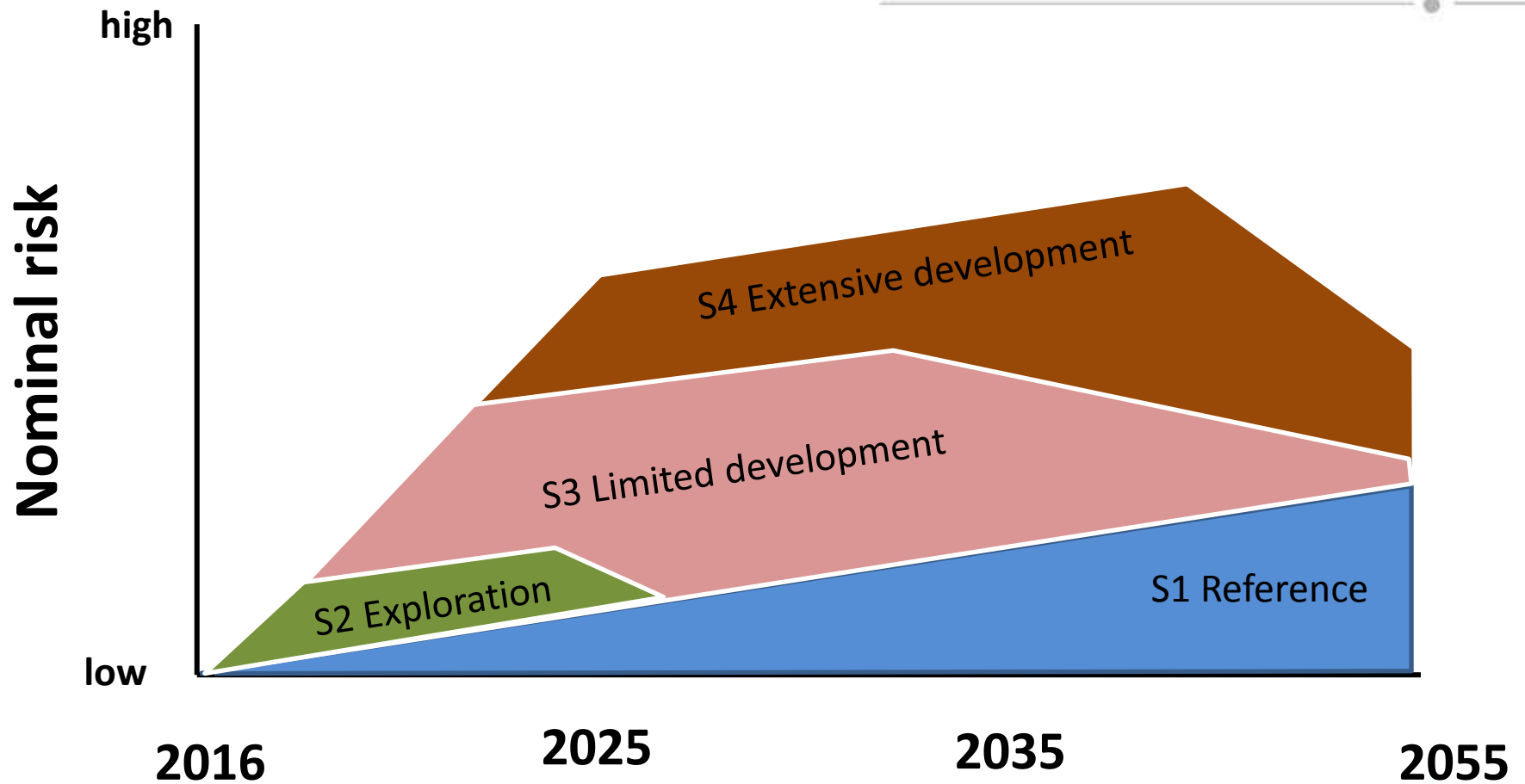
- Undertake a scientific assessment drawing on multiple experts
- Address ALL material risks and opportunities
- Identify high risk activities and sensitive/vulnerable areas across different development scenarios
- Define regional social and ecological limits
- Provide a decision-making framework for the regulation of shale gas activities



Study area

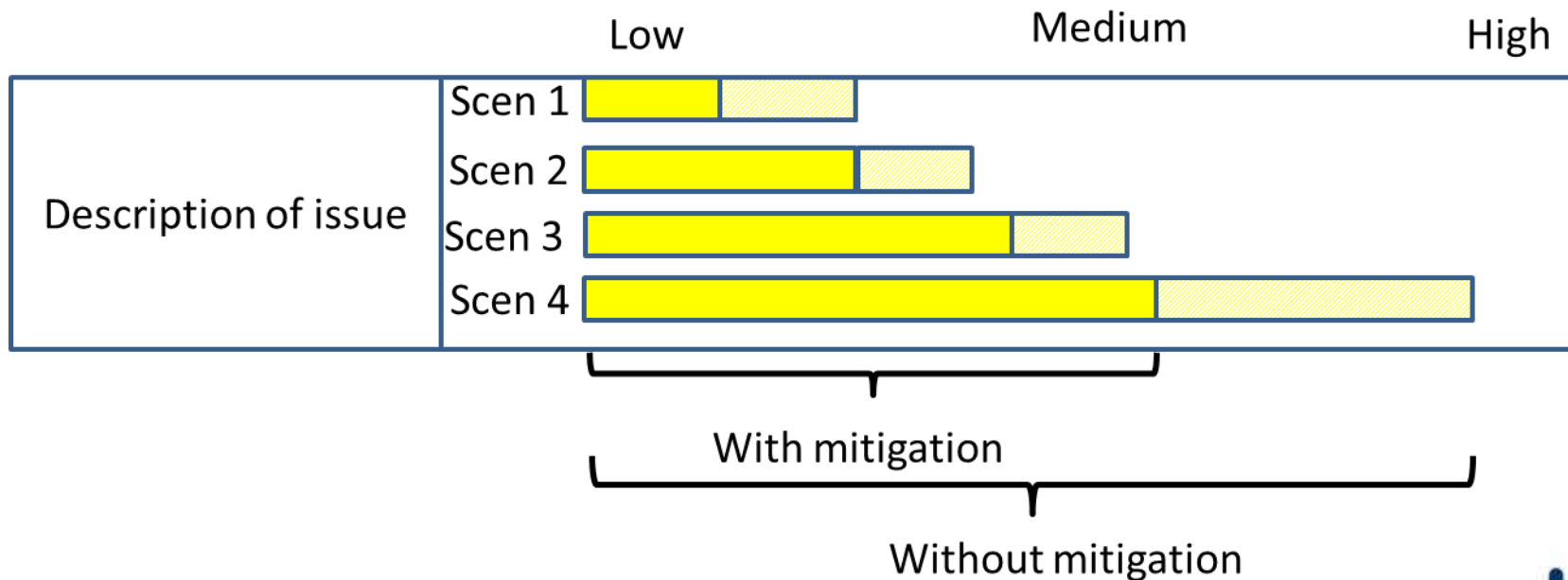


What to assess? Development scenarios



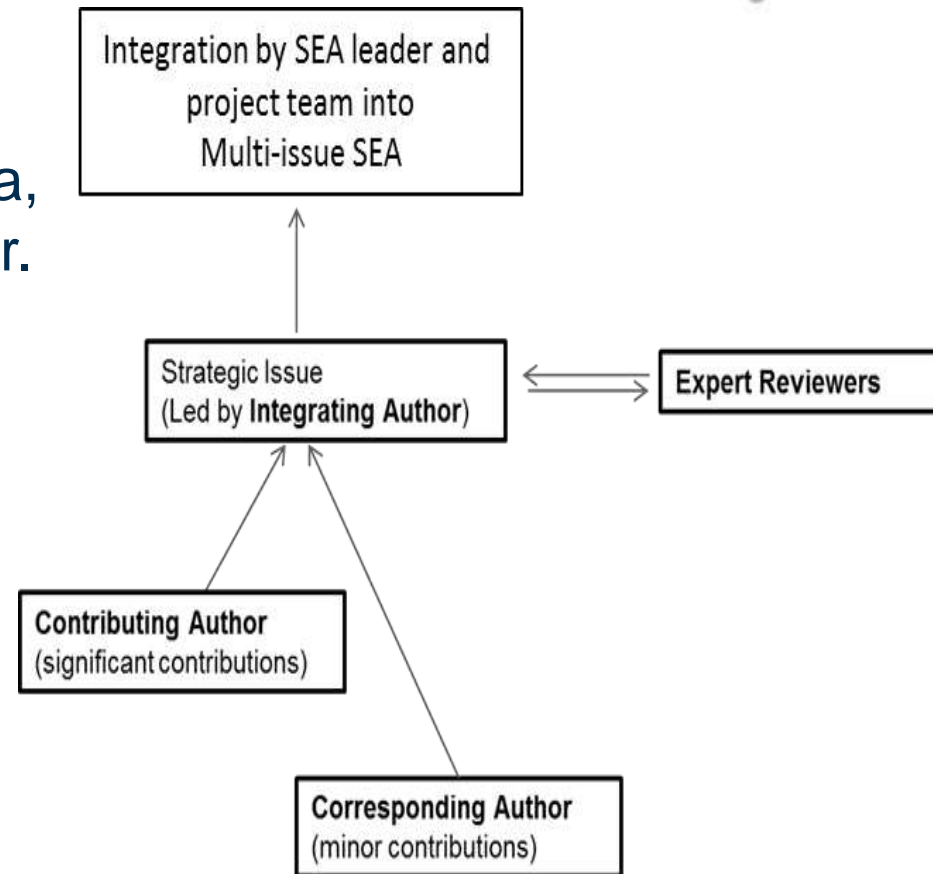
Risk assessment approach

- Risk is the intersection between exposure (probability*consequence) and vulnerability (which includes capacity to adapt and mitigate)
- Based on expert assessment in a shared language between specialist groups to promote consistency



Integrative Specialist Teams

- The assessment will draw acknowledged author from research organisations, academia, civil society and the private sector.
- It will undergo two rounds of review: First by independent expert reviewers, then by stakeholders.
- Integrating Authors allocated nominal time stipends, other Authors will have their disbursements costs covered.

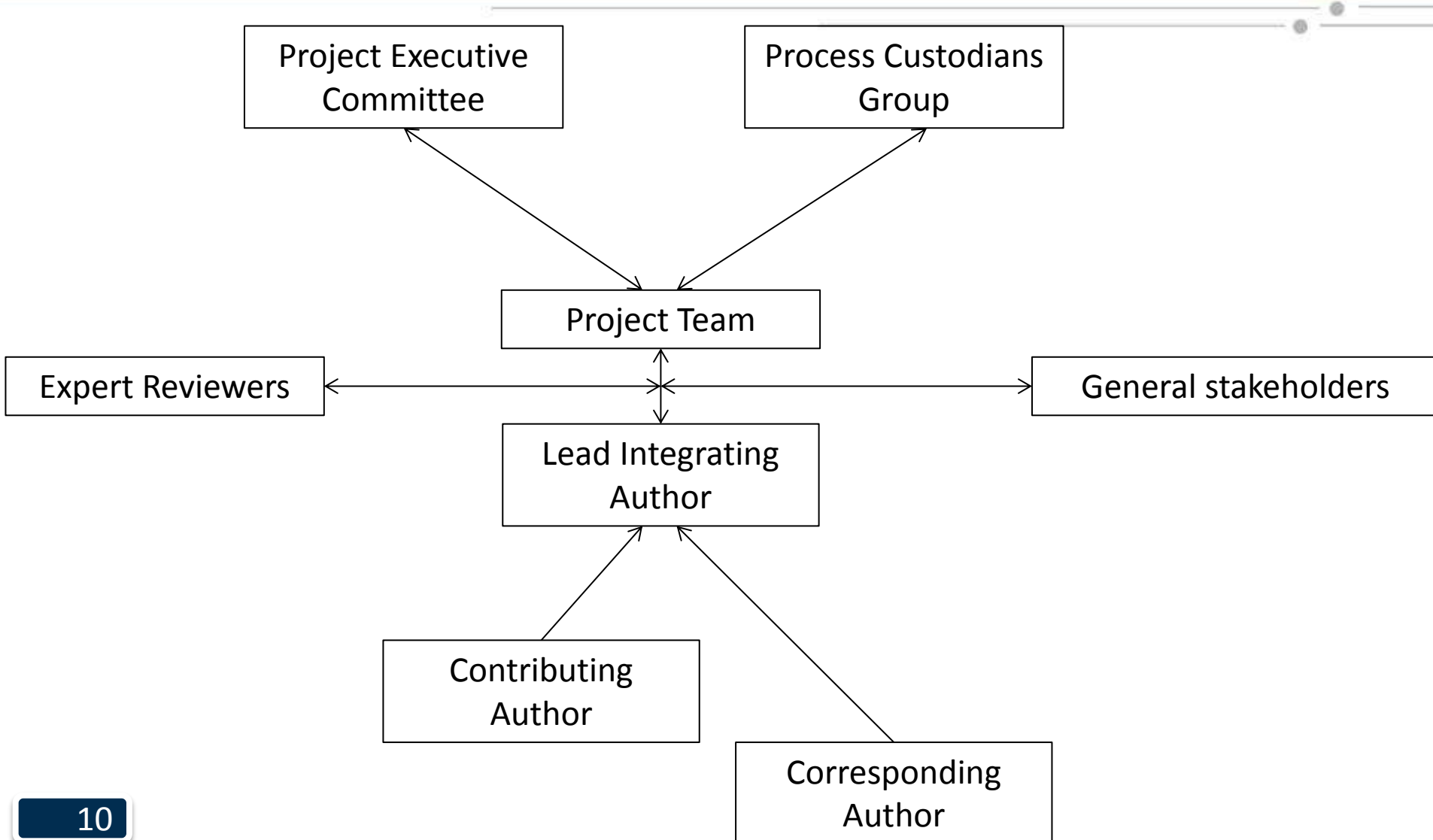


Strategic issues

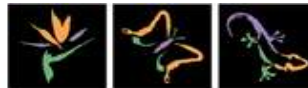
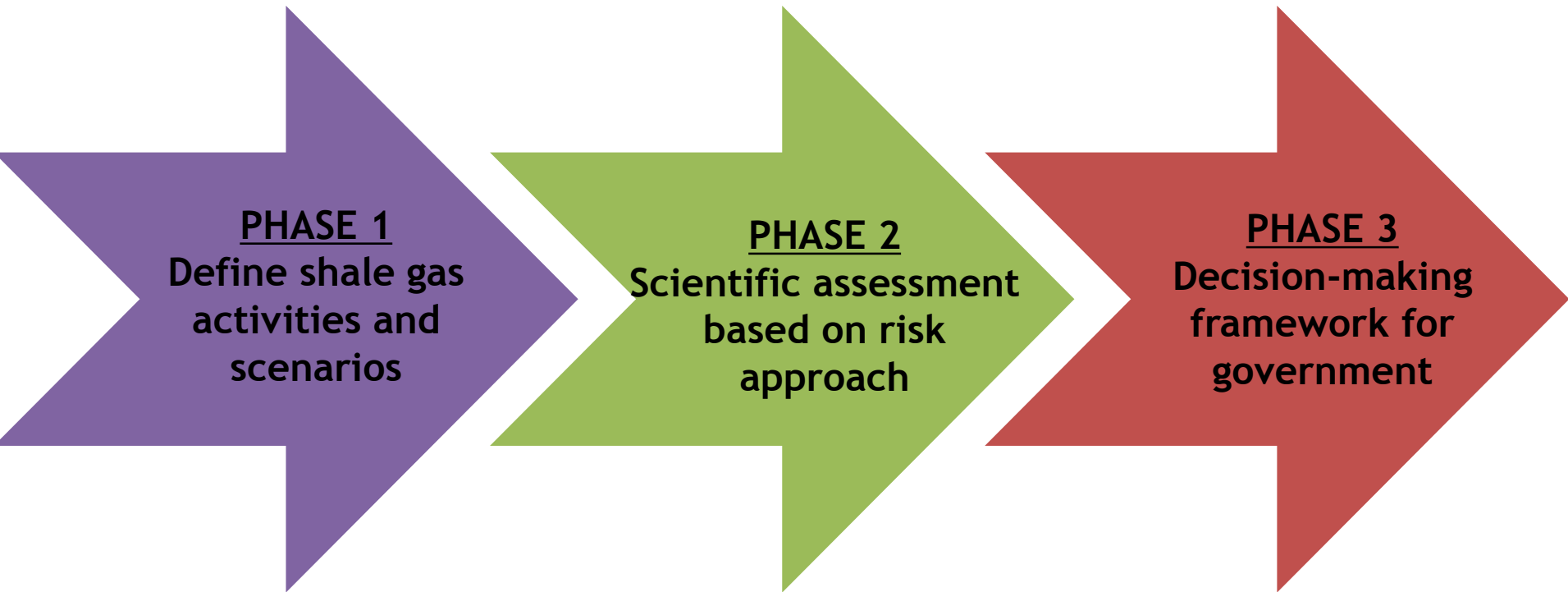
- The 'Environment' includes social, economic and biophysical spheres. Strategic Issues include:
 - Water Resources (Surface & Subsurface)
 - Biodiversity and Ecosystem Services
 - Air Quality & GHG Emissions
 - Social Fabric
 - Geophysics
 - Heritage Resources
 - Visual, Noise & Electromagnetics
 - Waste Management
 - Spatial Planning
 - 'Sense of place' (values assessment)
 - Economics (including tourism)
 - Energy Planning
 - Agriculture



SEA governance



SEA process



SEA outcomes

- Risk assessment with mitigating potential
- Sensitivity analyses spatially represented
- Limits or thresholds of change in study area
- Guidelines for permitting processes
- Monitoring protocols
- EMPr principles
- Minimum EIA requirements





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