Beetaloo Strategic Regional Environmental and Baseline Assessment (SREBA)

- The SREBA was a key recommendation of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory.
- The SREBA provides the comprehensive information necessary for sound decisions to be made about the development of an onshore shale gas industry in the Beetaloo Sub-basin, and a reference point for ongoing monitoring.
- The SREBA includes six broad study domains, including water, aquatic and terrestrial ecosystems, greenhouse gases, environmental health, and social, cultural and economic (SCE) studies.
- The Beetaloo SREBA concluded in December 2022 after intensive data collection over more than two years. It is the most comprehensive regional scientific study ever conducted in the Northern Territory, covering an area of 86,400 square kilometres (20% larger than Tasmania).
- The SREBA studies were undertaken by scientists in the NT Department of Environment, Parks and Water Security, external research agencies such as CSIRO, University of Queensland and Charles Darwin University, and environmental consultants.
- The SREBA also used data and information from previous studies, notably the Commonwealth Beetaloo Geological and Bioregional Assessment (GBA) Program. In combination, these studies represent an investment of close to $30M in understanding the Beetaloo region, following the Scientific Inquiry.
- The SREBA baseline studies are summarised in a Regional Report. All reports from the SREBA, and the data and information underlying them, are publicly available through the SREBA Data Catalogue (depws.nt.gov.au/sreba).
- The SREBA studies did not reveal new risks associated with onshore gas development additional to those that were extensively examined by the Inquiry and the Beetaloo GBA Program - but the SREBA provides additional information to help understand and manage these risks.
- In line with community concern, the strongest theme emergent from the SREBA baseline studies was the importance of water in the landscape. Areas of high environmental value were mostly associated with ecosystems that depend on either groundwater or surface water, and this is mirrored by the cultural and economic importance of these water resources and places.
- Most of these values occur around the margin of the broader study area (such as the groundwater discharge into the Roper River, and the important wetlands at Lake Woods and Longreach Waterhole). The groundwater is very deep under most of the Beetaloo Sub-basin itself, where there are no permanent streams.
- There is now a very large body of data and research findings relating to water resources in the Beetaloo region, particularly about the groundwater in the Cambrian Limestone Aquifer (CLA). This includes a detailed understanding of groundwater recharge, flow, levels, connectivity and discharge - which will feed into water allocation plans to manage sustainable groundwater use.
- Systematic biodiversity surveys and regional mapping have greatly increased knowledge of aquatic and terrestrial ecosystems in the Beetaloo region. This includes identification of aquatic refuges, areas with high ecological value, and the distribution of threatened species.
- The SCE studies identified four main themes that reflect widely held community values and aspirations for the future - safe and sustainable development; strong communities; maintaining and enhancing connection to land and culture; and informed and fair local participation.
- Interviews showed a low level of trust in the gas industry to adhere to best practice, and in the government's ability to regulate the industry effectively. The importance of ongoing communication with all stakeholders, and community involvement in planning for future development, was a strong and common theme.
- The SREBA is not in itself a risk assessment, but provides comprehensive information to allow government, regulators and industry to apply robust risk assessment. The GBA Program has already developed a systematic approach to assess the regional-scale risks of gas development in the Beetaloo region, and it is recommended that the SREBA data is incorporated to provide a powerful tool for assessment and approval decisions about gas development.
- The findings from each SREBA domain can also be used to inform the development of a regional monitoring framework for the Beetaloo region, to detect any cumulative or indirect impacts from onshore gas activities. This would include both biophysical indicators (such as water quality) and a long-term, participatory, regional social impact monitoring program.

For more information, visit **depws.nt.gov.au/sreba**

NORTHERN TERRITORY GOVERNMENT

Beetaloo SREBA Project by Numbers

100 team members from **10** expert organisations

14,544 hours of Terrestrial field work

Biophysical teams drove more than **364,000km** during field surveys

Over **200** people consulted by the social, cultural and economic research team

800,000+ camera trap images collected

23 new monitoring bores drilled totalling **3km**

5,001 flora sites surveyed

31 bores installed with continuous water level loggers

ongoing sampling of **20** bores for water quality analysis

1,818 plant species in the study area

14,000km of mobile survey for greenhouse gases

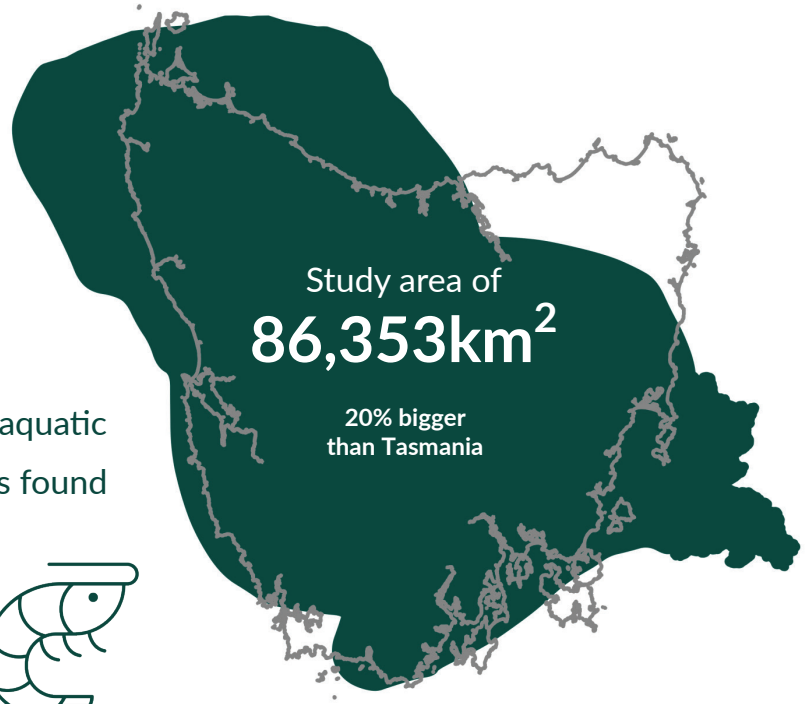
5 air quality monitoring stations installed

202 bird species recorded

748 ant species recorded in the study area

291 species of aquatic animals found

38 species of stygofauna in the study area



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