

Social, cultural and economic studies of the Beetaloo Sub-basin SREBA: scope of works



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¹ QS World University Rankings and Performance Ranking of Scientific Papers for World Universities, 2019.

² The University of Queensland ranks third in the world for mining and mineral engineering, 2021 QS World University Rankings.

Executive Summary

This document presents a Scope of Works for the ethical and effective conduct of the Social, Cultural and Economic (SCE) baseline and strategic assessment for the Beetaloo Sub-basin in the Northern Territory of Australia.

The SCE is one of six inter-related and multi-disciplinary studies that together comprise the *Strategic Regional Environmental and Baseline Assessment (SREBA)* that is being coordinated by the Northern Territory Government in response to recommendations made by an expert panel in the 2018 Final Report of *The Scientific Inquiry into Hydraulic Fracturing in the Northern Territory* (the Pepper Inquiry).

The Beetaloo Sub-basin is a geological delineation of an area that lies around 500 km south-east of the capital city of Darwin. It is a vast and sparsely populated area covering approximately 28,000 km². Although land is currently used mainly for grazing cattle and Aboriginal practices, the geology of the Beetaloo Sub-basin has been identified as holding globally significant onshore gas resources.

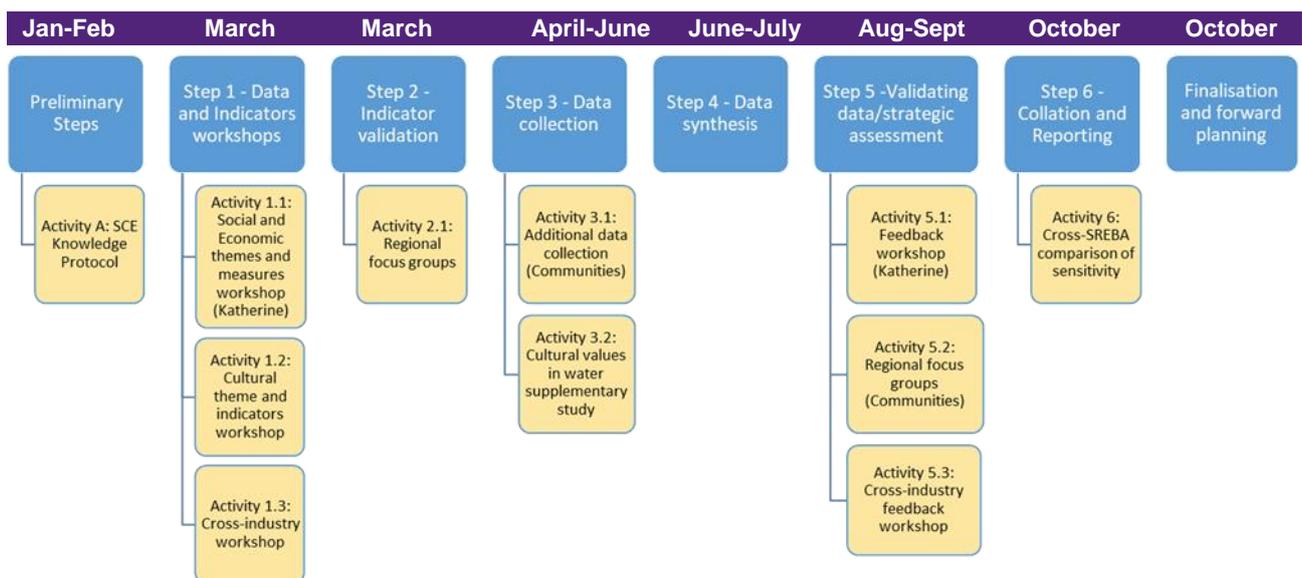
The SCE SREBA is intended to capture a baseline understanding of life and livelihoods in the Beetaloo region as a reference point for ongoing monitoring, particularly in relation to potential onshore gas development.

The SCE SREBA includes communities within and proximate to the Beetaloo Sub-basin. The SCE studies seek to understand the wellbeing of people and communities in terms of:

- cultural identity
- local economies
- strong voice
- living environment
- healthy country
- infrastructure and services.

The SCE baseline and strategic assessment is designed to be an empowering process for communities facing any type of development. It can allow future development to be better managed to protect values, build on existing strengths and address areas sensitive to development.

The SCE baseline and strategic assessment will be undertaken between January and October 2022 in a staged approach with multiple methods and iterative engagement (see below proposed timeline).



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1.0 Introduction

This document details the Scope of Works (SoW) for the conduct of the Social, Cultural and Economic (SCE) studies of the Strategic Regional Environment and Baseline Assessment (SREBA) for the Beetaloo Sub-basin. The purpose of the SREBA is to provide the information necessary for appropriate decisions to be made about the potential development of an onshore shale gas industry in the region.

A SREBA is a new concept in resource governance in Australia and therefore has no precedent or direct comparison. A SREBA is a tool for governments, industry and community to better understand and manage shared responsibilities for regional scale and cumulative impacts from resources and other types of development. It is a set of studies to understand current conditions, so that changes over time can be measured through ongoing monitoring programs. Monitoring change is important for the management and governance of regional and cumulative impacts as it can enable the early identification of emerging issues and provide evidence for the effectiveness or otherwise of existing strategies.

In adopting a regional baseline and assessment approach, the Northern Territory Government (NT Government) developed detailed guidance on the requirements and components of a SREBA (SREBA Framework).³

The SREBA Framework provides technical guidance on how the baseline studies should be undertaken within six (6) domains. A Baseline Report containing a detailed description of the methods, results, analyses and synthesis products is to be produced under each domain:

- water quality and quantity
- aquatic ecosystems
- terrestrial ecosystems
- methane and greenhouse gas
- environmental health
- social, cultural and economic.

In order to undertake the studies, a detailed, region-specific SoW has been developed for each domain at the commencement of a SREBA, based on the SREBA Framework and the particular environmental and social attributes of the region.

Each SoW is subject to approval by the Minister for Environment and Natural Resources before the actual baseline studies commence.

In April 2021, the NT Government commissioned The University of Queensland (UQ) Centre for Natural Gas to develop the SoW for the SCE component of the SREBA. A specialist team of experienced UQ researchers has been assembled from across the University to develop the SoW.

1.1 Requirements of the SCE component

The SREBA Framework stipulates that the SoW for baseline studies in each domain should include:

- the spatial and temporal boundaries of the domain
- detailed description of methods
- a project plan, indicating timeframes, resources required and risks
- data standards and data management requirements

³ Northern Territory Government (2020) *SREBA Framework: a guide to undertaking a strategic regional environmental and baseline assessment in the Northern Territory*. https://hydraulicfracturing.nt.gov.au/_data/assets/pdf_file/0005/914297/sreba-framework.pdf.

- reporting and communication requirements
- stakeholder engagement requirements.

Table 1 is drawn from the SREBA Framework and identifies the specific information outputs for the SCE domain and the potential application of this information (p.13).

Table 1 Expected outputs under the social, cultural, and economic domain

Key information and data outputs	Regional application (following studies)
<p><u>Baseline assessment report</u> identifying the social, cultural, and economic characteristics of the region</p> <p><u>Regional social assessment report</u> that brings together relevant information from all SREBA baseline studies:</p> <ul style="list-style-type: none"> • identifies regional development aspirations and potential outcomes • identifies and assesses the potential cumulative impacts of multiple projects over time • describes a monitoring and evaluation program to be implemented if industry progresses to the development phase 	<ul style="list-style-type: none"> • identification of buffer areas, and “no-go zones” • monitoring for cumulative impacts over time • strategic infrastructure planning to mitigate potential impacts on communities within the region • community engagement strategies between industry, government and communities • inform project-level social impact assessments and management plans by proponents • training, upskilling and business development programs for the region • reporting to affected communities of the social, cultural and economic impacts and opportunities associated with industry development

The combined SCE studies are a critical component of the Beetaloo Sub-basin SREBA. Unlike other SREBA domains, the SCE studies rely on high levels of participation by Beetaloo region residents and representatives to obtain information about people, culture, communities, and livelihoods.

The SCE studies provide a point-in-time baseline of the social, cultural, and economic characteristics of the Beetaloo Sub-basin with a regional assessment that considers cumulative impacts in terms of the range of existing industries and future development possibilities. Figure 1 (from p.96 of the SREBA Framework) shows how the SCE studies and strategic regional assessment are intended to interact. The strategic regional assessment will provide a tool to monitor levels of change – positive and negative – to the assessed baseline.⁴

Establishing the SCE baseline around identified themes requires both quantitative and qualitative data. Some SCE characteristics can be measured in numbers (quantitative) such as population and employment, but many others can only be assessed through asking questions and listening to peoples’ stories (qualitative). Relevant information is needed to understand what is important to people in the region, their concerns and aspirations for the future, connections with each other and their environment, liveability and wellbeing. Figure 2 shows the SCE themes as contained in the SREBA Framework.

The overarching principles for the SoW studies are contained in the SREBA Framework.

⁴ The terms ‘baseline studies’ and ‘strategic regional assessment’ are used to ensure there is clear differentiation between project-specific social impact assessment (SIA) undertaken by proponents and the SREBA. The SREBA does not replace the need for a project-specific SIA and will inform the development of project specific SIA’s (SREBA Framework).

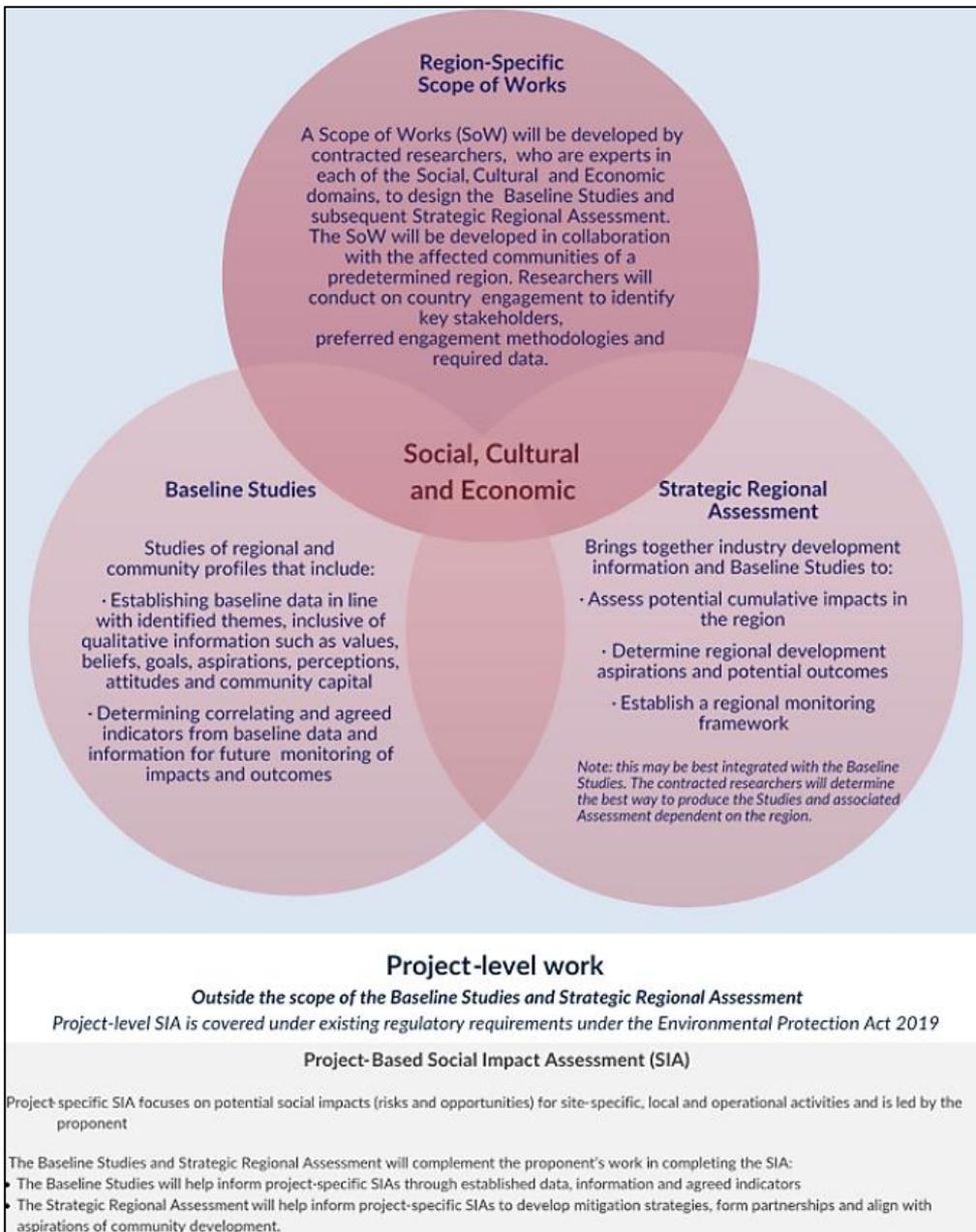


Figure 1 Social, cultural, and economic baseline studies and strategic regional assessment

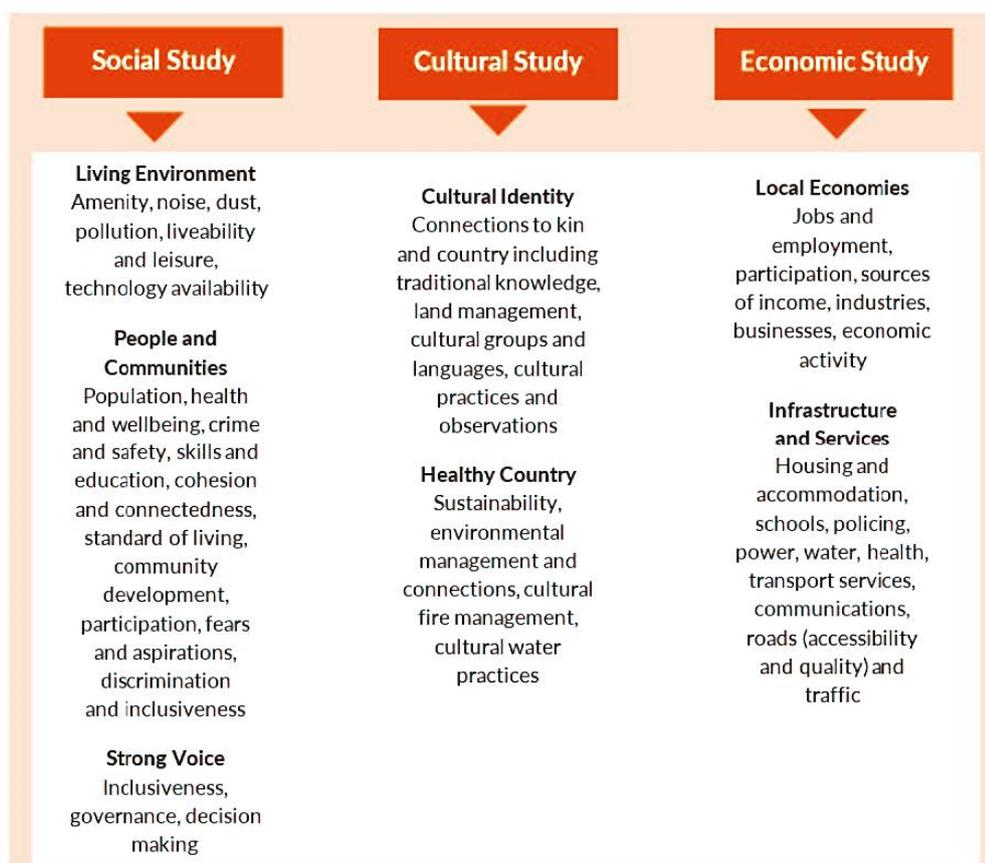


Figure 2 Social, cultural and economic themes to be used for the baseline studies and strategic regional assessment

1.2 Research objectives

The SCE studies and strategic assessment includes communities within and proximate to the Beetaloo Sub-basin. The SCE studies seek to understand the wellbeing of people and communities in terms of:

- cultural identity
- local economies
- strong voice
- living environment
- healthy country
- infrastructure and services.

The SCE baseline assessment can be an empowering process for communities facing any type of development. It can allow development to be better managed to protect values, build on existing strengths and address areas sensitive to development.

1.3 Outline of the SCE Scope of Works

The following sections of the SCE SoW report are structured as follows:

- Background and approach – outlines the Beetaloo Sub-basin regional context
- Theories and frameworks informing the development of the SoW – provides a brief overview of the main theories and frameworks underpinning the participatory processes of the project

- Methods – describes the preparation of the Scope of Works; describes the results from stakeholder engagement in developing the SoW and how it informs stakeholder engagement in the SCE studies; describes preliminary data mapping (Appendix B) and provides a summary of the ethics application process submitted to the Human Research Ethics Committee at UQ
- SCE study design: Scope of Works – provides an explanation of the methodology for 2022
- Project plan and timeframe – presents the proposed activities for the 2022 methodology
- Appendix A – Community and stakeholder engagement plan
- Appendix B – Data mapping activity.

2.0 Background and approach

2.1 Beetaloo Sub-basin regional context

There are few towns and communities located within the Beetaloo Sub-basin so the scope includes townships proximal, and/or relevant to the region. These include larger townships such as Katherine, Borroloola and Tennant Creek, and smaller towns and localities such as Elliott, Marlinja, Mataranka, Beswick, Barunga, Ngukurr and Jilkminggan, Daly Waters and Larrimah.

The Beetaloo region has a diverse economy based on agriculture, fishing, tourism, public administration, mining activity and construction. The Beetaloo region is predominantly covered by pastoral leases (PLs) and is used for grazing cattle. Most of these PLs are subject to native title determinations. As such, non-exclusive native title rights and interests are recognised across much of the SCE study area. Other smaller areas are held under inalienable Aboriginal freehold title under the *Aboriginal Land Rights (NT) Act 1976*.

The majority of the population living in the Beetaloo Sub-basin identify as Aboriginal people and the SCE studies need to understand and respect the context of Aboriginal social organisation and appropriate pathways for engagement with Aboriginal people. There is also a large number of non-Aboriginal pastoralists operating in the region. Beyond the larger centres of Katherine and Tennant Creek, the population becomes scattered among small communities, town camps, Aboriginal homelands and outstations and pastoral stations.

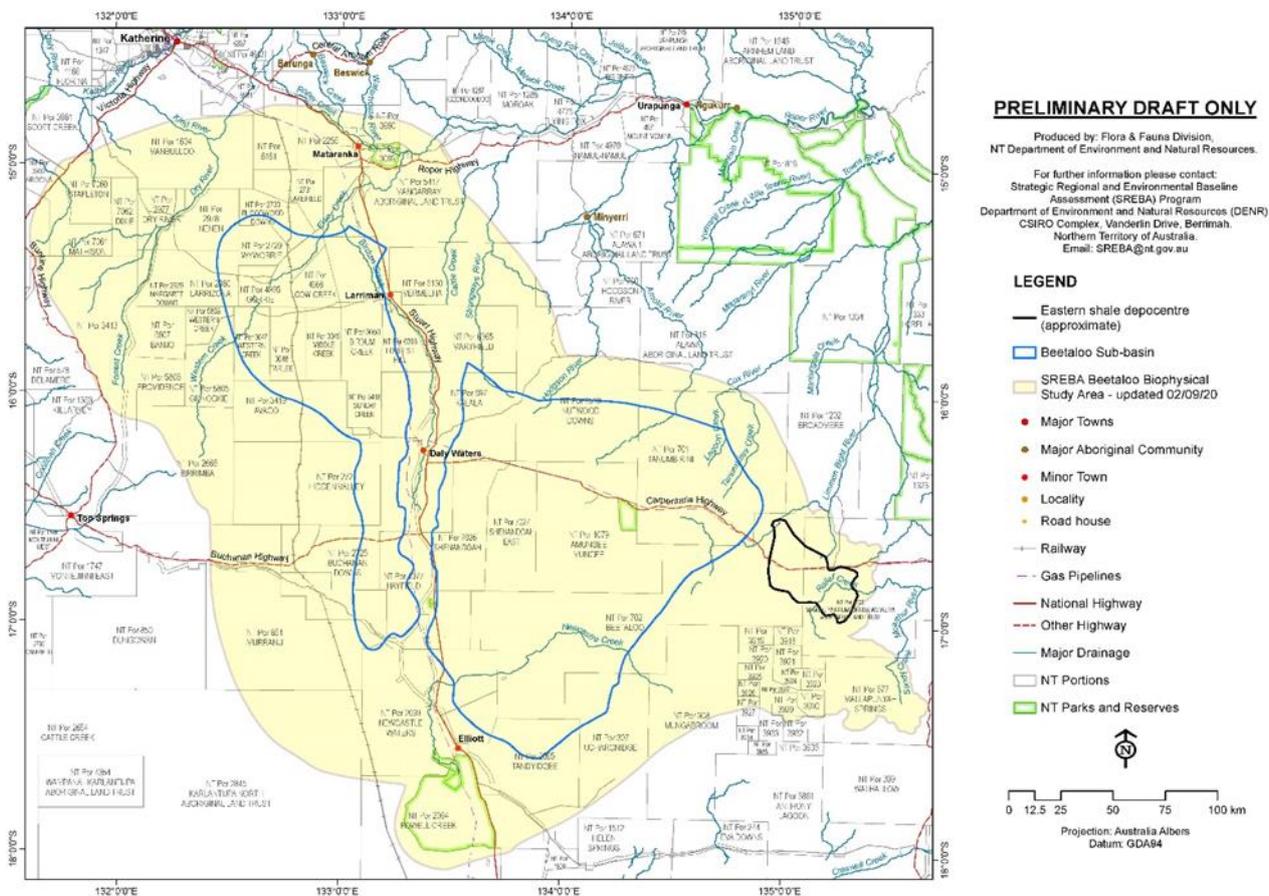


Figure 3 Map of the Beetaloo Sub-basin

2.2 Theories and frameworks informing the development of the SoW

2.2.1 Participatory processes and co-development

Participation and co-development take two forms in this project.

1. Participation and co-design of the SCE studies and strategic assessment itself.
2. Participation and co-design of a monitoring and evaluation framework for ongoing governance in the region.

Public participation is a standard element of contemporary development planning and governance. It is based on the principle that those most affected by a decision have the right to be involved in the process of making that decision⁵. Involvement in the process means more than just the project proponent, or state, sharing information about what is going to happen, or just listening to potentially impacted communities. It means that community contributions to the discussions, including recognition of their rights, concerns, aspirations and values, influence the decisions and plans about implementation of the project. This is particularly important where harm may occur, and when individual and collective enjoyment of rights may be impacted.

⁵ IAP2 (2015) *Quality Assurance Standard For Community and Stakeholder Engagement*, https://iap2.org.au/wp-content/uploads/2019/07/IAP2_Quality_Assurance_Standard_2015.pdf

Other important values enabled by participation, as stated by the IAP2 *Quality Assurance Standard for Community and Stakeholder Engagement*⁶, and repeated in the SREBA guidance⁷, are that a participatory process:

- promotes sustainable decisions by recognising and communicating the needs and interests of all participants, including decision makers
- seeks out and facilitates the participation of those potentially affected by or interested in a decision
- seeks input from participants in designing how they participate in the stakeholder engagement process
- provides participants with the information they need to participate in a meaningful way communicates to participants how their input affected the proposal and decision.

We have used the term co-design to emphasise that we are seeking the advice, comments and suggestions of project participants about how we conduct this research. We have already undertaken an initial round of scoping discussions to get to this stage of the project, and have responded to input from participants about the importance of considerations such as:

- language and technical comprehension skills – we have therefore proposed to engage with an expert Aboriginal communications firm and interpreters to ensure that non English as First Language speakers, including Aboriginal English speakers will be able to understand and communicate with the research team throughout the project.
- Aboriginal knowledge – we have committed to a process of co-developing an SCE Knowledge Protocol to cover collection, storage, access and dissemination of information gained during the research project.
- the research team (and the NT Government and supporting organisations) note that we may need to seek variations to this Human Ethics Research Application where required by our co-design commitment.

2.2.2 Aboriginal rights and inclusion

Respecting Aboriginal peoples' rights and ensuring their inclusion in development decision-making and planning processes is a key aim of the SCE studies and strategic assessment. In undertaking this work, we are guided by the *United Nations Declaration on the Rights of Indigenous Peoples 2007* (UNDRIP). Although Australia voted against the Declaration at its initial adoption, the Australian government has supported the Declaration since 2009^{8,9}. The development of the Declaration was championed and negotiated by Indigenous Peoples from all over the world, and remains the most comprehensive instrument on the specific individual and collective rights of Indigenous Peoples. The main Articles relevant to the SCE studies and strategic assessment, as well as the SREBA more broadly are:

- participation in decision-making, Free Prior and Informed Consent (FPIC) (Articles 10, 11, 19, 28, 29 and 32)
- self-determination, development and economic and social rights, Indigenous Peoples rights to determine how they want to develop whilst having equal access to the services the broader community has access to (Articles 18, 19, 20, 21, 22, 23)

⁶ IAP2 (2015) *Quality Assurance Standard For Community and Stakeholder Engagement*, https://iap2.org.au/wp-content/uploads/2019/07/IAP2_Quality_Assurance_Standard_2015.pdf

⁷ IAP2 in SREBA Guidance p102-3

⁸ UN News (2009) *Experts hail Australia's backing of UN declaration of Indigenous Peoples' rights*, <https://news.un.org/en/story/2009/04/295902-experts-hail-australias-backing-un-declaration-indigenous-peoples-rights>

⁹ The Australian Government has not yet formally incorporated UNDRIP into law and policy, although many have called for action on full implementation (e.g. AHRC 2021 Incorporating UNDRIP into Australian law would kickstart important progress, <https://humanrights.gov.au/about/news/opinions/incorporating-undrip-australian-law-would-kickstart-important-progress>). *The Inquiry into the destruction of 46,000 year old caves at the Juukan Gorge in the Pilbara region of Western Australia* by the Joint Standing Committee on Northern Australia also made a recommendation that UNDRIP, and specifically FPIC, be enshrined in law (2021) https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Northern_Australia/CavesatJuukanGorge

- language cultural and spiritual identity, protecting and promoting Indigenous Peoples' cultural rights. (Article 11, 12, 13)
- rights to country, resources and knowledge. (Articles 25-32).

The activities undertaken for the SCE studies and strategic assessment will play an important role in supporting participatory decision making about the future of the Beetaloo Basin, and therefore upholding the rights of the region's Indigenous Peoples. The information gathered, insights gained, and conclusions reached are all designed to engage potentially impacted communities and individuals so that they can participate in good faith, meaningful dialogue. These activities do not constitute a FPIC process in themselves, though should contribute to the information base required for FPIC and provide a meaningful opportunity for participation in development planning¹⁰.

Our approach has an emphasis on enabling two-way governance, as advocated by the Australian Indigenous Governance Institute, beginning with the step of mutual understanding. That is, our aim is as much for the region's Indigenous Peoples to understand the SREBA, SCE Studies, Strategic Assessment, and development context, as it is for the government, proponents, and service agencies to understand "*Indigenous culture, laws, rules and forms of accountability*"¹¹ for their country and communities.

2.2.3 Stakeholder engagement principles

Community and stakeholder engagement is undertaken to:

- understand who is likely to be impacted and how
- understand the values and characteristics of potentially affected communities
- identify and assess potential social, cultural and economic impacts
- support monitoring and reporting (including outcomes and performance indicators)
- keep community and stakeholders up to date with the project milestones and outcomes
- provide confidence in the integrity of the project processes and practices.

The following principles underpin our approach to community and stakeholder engagement for the assessment:

- transparency and continuity, including regular engagement, clear information processes and feedback loops
- inclusiveness, ensuring local and regional residents, businesses and groups can participate through a range of engagement mechanisms, with respect for diverse views
- fostering partnerships, through engagement with stakeholders in pursuit of shared outcomes
- integrity and accountability, based on engendering trust, meeting project commitments and building a lasting relationship.

2.2.4 Community indicators

Community indicators are measurements that provide information about past and current trends and assist planners and community leaders in making decisions that affect future outcomes. In essence, indicators are measurements that reflect the interplay between social, environmental, cultural, and economic factors affecting a region's or a community's wellbeing. As proxies for more complex social phenomena however, indicators are more than simple statistical measurements. They are a reflection of what a community thinks

¹⁰ Further information on FPIC is available at: Ashurst (2021) *Free, prior and informed consent*, <https://www.ashurst.com/en/news-and-insights/insights/free-prior-and-informed-consent/>

¹¹ AIGI (2013) *The Indigenous Governance Toolkit: 2.2 Two-Way Governance*, <https://toolkit.aigi.com.au/toolkit/2-2-two-way-governance>

are important to keep track of, and they hold assumptions about how change can and should occur¹². When developed through a participatory process and used as proactive tools to inform change, indicators can provide residents with the opportunity to collectively identify problems and shape outcomes. In doing so, indicators promote community empowerment and can also uncover some unexpected solutions.

Indicators have two key characteristics¹³:

- they **quantify** information as far as possible in order to track change and significance. There are different levels of quantification. In the social sciences, qualitative measures are also commonly used, such as self-reported scales of happiness and health. In this study we will be using qualitative indicators as well as traditional metrics.
- they **simplify** information about complex phenomena to improve both communication and management.

More recently, indicators have been developed to track changes not only in terms of physical outcomes, but also in terms of fair and reasonable processes. For example, there could be indicators around the state of relationships between local communities and proposed development proponents.

While specific indicators will vary depending on a community's needs and desires, there are several commonly used criteria for choosing indicators. These include:

- validity
- relevance
- reliability
- availability
- measurability
- clarity
- comprehensiveness
- comparability.

A successful indicator should also:

- be appropriate to its context
- be meaningful and useful to stakeholders
- use affordable, relevant, and accessible data sources
- clearly state and accurately reflect its intent
- result from collaboration with stakeholders
- be consistent with aims.

The Beetaloo Sub-basin is a culturally rich and diverse region. The region is represented by a wide range of stakeholders presenting a multifaceted dynamic. Within this are layers of complexity, with traditional Aboriginal knowledge and connections to Country paralleled with government, corporate, pastoral and other industries' interests in the region.

This study recognises the inherent complexity as well as the different requirements of people within the region to be able to engage with the SREBA in a way that is meaningful to them. It draws on leading practice, national and international standards and latest theories in public participation and inclusivity, Aboriginal-led research, stakeholder engagement and community indicators.

¹² Gerardo Sandoval & Jane Rongerude (2015) Telling a Story that Must Be Heard: Participatory Indicators as Tools for Community Empowerment, *Journal of Community Practice*, 23:3-4, 403-414, <https://www.tandfonline.com/doi/full/10.1080/10705422.2015.1091417>

¹³ Hammond, A., Adriaanse, A., Rodenburg, E., Bryant, D., & Woodward, R. (1995). *Environmental Indicators: A systematic approach to measuring and reporting on environmental policy performance in the context of sustainable development*. World Resources Institute. http://pdf.wri.org/environmentalindicators_bw.pdf

2.2.5 A principled approach

The process outlined in this SoW has been designed to be an empowering process for communities facing any type of development so that development can be better managed to protect values, build on existing strengths and address areas sensitive to development.

The approach to the SCE studies includes:

- development of an SCE Knowledge Protocol (Aboriginal knowledge sharing agreement between key parties)
- establishment of communications plan and accompanying materials
- participatory processes for indicator selection, indicator validation, data collection and data validation e.g. through workshops, focus groups, regional group discussions
- participatory regional assessment
- synthesis and reporting.

The inclusive methodological approach to engagement commits to:

- involve as many people and groups as possible
- generate respectful sharing of agreed information
- create opportunities for local ongoing monitoring and information sharing.

2.3 A note on spatial and temporal boundaries

The SCE study area is more expansive than the Beetaloo Sub-basin geological resource area and the SREBA boundary for biophysical studies. This is because the SCE study area is based on 'affected communities' and includes communities proximal to the resource area. This approach recognises that surrounding communities may be affected by development activities and that people within them have connections to the Beetaloo Sub-basin area.

The SCE study area is therefore defined as the broad area within and including Katherine, east to Borroloola and south to Tennant Creek. This area comprises major towns, minor townships, town camps, community living areas and Outstations.

From the stakeholder engagement undertaken over the last six months, it is clear that there are many attributes that exist within the Beetaloo Sub-basin that are of interest and value to people well beyond the geographic boundary. Similarly, there are many people both close and far, whose values and interests may be affected by what happens in the Beetaloo Sub-basin. While these external values are acknowledged, this study is necessarily a 'place-based' study to focus on those communities within or closely connected to the Beetaloo Sub-basin geographic area.

The SREBA requirement does not preclude onshore gas exploration activity however, and several operators have negotiated access agreements with pastoralists and Traditional Aboriginal Owners (through relevant Land Councils) and have already drilled wells to understand the extent of gas in the region. Therefore, while a SREBA is meant to assess and report conditions in the Beetaloo Sub-basin region before onshore gas development, it is acknowledged that exploration activity has already begun with associated impacts in some areas; existing or felt impacts will be documented to an extent and where possible as part of the studies.

The SCE study area was informed by the SREBA Framework report and previous works undertaken such as the *Beetaloo Sub-basin SIA Case Study*¹⁴. During the engagement that informed the development of the SoW, it was widely agreed that the extent of the study area should include the major communities of Katherine and Tennant Creek; Borroloola in the east, Barunga, Beswick, Mataranka, Jilkminggan, Minyerri and Ngukurr in the north and Larrimah, Daly Waters, Marlinja and Elliott in the centre.

¹⁴ Coffey (2018) *Scientific inquiry into hydraulic fracturing in the Northern Territory, Beetaloo sub-Basin SIA case study*. Darwin. <https://frackinginquiry.nt.gov.au/inquiry-reports?a=476739>.

All these communities are located within the Big Rivers region and the Barkly region. Key demographic statistics for each of the SCE study area communities are presented in Table 2.

Table 2 Population, age and gender statistics, 2016¹⁵

Geographic Location	Population		% Males	Median Age	<15 years (persons) (%)	>65 years (persons) (%)
	Total	% Indigenous				
Katherine Local Government Area (LGA)	9,717	22.1	52.1	33	22.6	8.4
Tennant Creek Statistical Area 2 (SA2)	2,991	51.3	52.6	33	21.6	7.8
Barunga State Suburb (SSC)	363	89.9	47.4	26	29.1	2.8
Beswick SSC	515	95.7	46.4	24	31.8	2.5
Mataranka SSC	350	29.5	56.3	46	12.8	17.7
Jilkminggan SSC	301	98.6	46.4	23	3 0.7	1.9
Minyerri Urban Centre/Locality (UCL)	618	94.5	47.9	21	38	1.5
Ngukurr SSC	1,149	93.4	50.7	23	32.3	1.6
Larrimah SSC	47		48.8	41		
Daly Waters SSC	9		63.6	54		
Marlinja ¹⁶	36					
Elliott SSC	339	87.2	47.6	24	34.7	6.1
Borrooloola UCL	871	76.1	51.8	26	29	6.4

3.0 Methods

3.1 Preparation of the Scope of Works

The preparation of the SoW involved several key steps including:

1. establishing an Expert Advisory Panel (EAP)
2. establishing a framework for early engagement with stakeholders
3. desktop literature review investigating best practice and measures used in similar baseline studies
4. data mapping and categorisation of existing data relating to the Beetaloo region
5. co-design of scope in consultation with key stakeholders
6. gain human research ethics and other approvals.

The EAP consists of academics with expertise and experience in applied social sciences, regional development and impacts of resource extraction. The EAP was formed to provide an additional layer of accountability and rigour to the SoW and will continue in this advisory role to provide guidance on the

¹⁵ Australian Bureau of Statistics (2016) *Quickstats*. <https://www.abs.gov.au/websitedbs/D3310114.nsf/Home/2016%20QuickStats>.

¹⁶ Northern Territory Government (2021) *BUSHTEL. Community Profiles*. <https://bushtel.nt.gov.au/profile>.

conduct of the SCE studies in 2022. The EAP have provided feedback on the ethics application and advice on the methodology for 2022.

A stakeholder database was compiled from multiple sources including an existing list of key SREBA stakeholders, a 'snowballing method', where we asked stakeholders if they knew others we should talk to, a review of submissions to previous inquiries relating to onshore gas, a media scan and the identification of Aboriginal organisations in the region. For the early engagement in developing the SoW, engagement was mostly limited to representative organisations such as Land Councils, industry peak bodies, environmental and community organisations, business and regional councils, regional service providers and NT Government departments.

Much of the stakeholder engagement occurred via online platforms such as Zoom and Teams. The research team travelled to the northern part of the study area once and to Darwin twice. Other planned visits were disrupted due to COVID-19 lockdowns and uncertainties. Further information on stakeholder engagement and the views and interest of stakeholders is detailed in Section 3.2.1.

A review of relevant literature was undertaken to identify the most current thinking and practice in social, cultural and economic baseline assessment and community indicators measurement. An anthropological review was also undertaken to understand Aboriginal social organisation in the region and the roles of different Aboriginal groups.

A desktop data mapping exercise was undertaken to identify the extent and nature of social, economic and cultural data that is, or has been collected already in the Beetaloo region and to identify who currently holds or is responsible for that data. This exercise enabled the identification of possible collaborators for data collection or data sharing in 2022 and also the SCE sub-themes for which additional data collection was needed. Section 3.3 and Appendix B provide further information on the data mapping exercise.

An application for human research ethics approval under the *National Statement on Ethical Conduct in Human Research* (2018) was submitted to UQ's Human Research Ethics Committee. The ethics application and approval process provide the framework for the integrity and transparency of the research, including the methods used and the conduct of researchers. Section 3.4 provides further details about the ethics application.

The proposed methodology has been co-designed with input from a range of stakeholders and is grounded in leading research and practice, as well as a proven collaborative and participatory method for shared measurement of cumulative impacts of onshore gas developed through work done in Queensland¹⁷.

3.2 Stakeholder engagement

This section outlines the key messages from stakeholder engagement in the development of this SoW. Between May and October 2021, the UQ research team engaged with over 40 stakeholders – some as individuals and some as groups. These included Land Councils, the Aboriginal Areas Protection Authority, NT Government departments and service providers, the Beetaloo Regional Reference Group (BRRG), regional councils and local authorities, industry and business organisations, Native Title and other Aboriginal organisations, pastoralists and agricultural industry peak bodies, recreation and other interest groups, and environment groups. Most of the conversations were held online or by phone, with face-to-face engagement occurring in Katherine and the surrounds, and Darwin.

Conversations centred around four key elements:

- boundaries – stakeholders were asked for their perspectives on the study boundary area with reference to the biophysical study area and confirm what communities should be considered in the project
- indicators and themes – how stakeholders interpret the SCE subthemes defined in the SREBA guidance (Figure 2) and what they would like to see measured

¹⁷ Witt K, Rifkin W, Everingham J 2015. The UQ Cumulative Impacts online toolkit (UQ Boomtown Toolkit) <https://natural-gas.centre.uq.edu.au/project/online-tool-measure-socio-economic-changes-communities>

- data collection – stakeholders engaged around data availability and validity, including what relevant data (if any) they do or could collect, as well as suggestions for how data could be collected
- engagement preferences – stakeholders were asked how they would like to be involved in the SCE study and their level of interest in participating in project workshops during 2022

This early round of engagement informed our understanding of how to engage with stakeholders and their preferred engagement methods. It also facilitated understanding of expectations for and perspectives on the SCE SREBA study.

3.2.1 Interests and issues

Stakeholders identified a range of interests and issues in relation to the SCE SREBA study, but also in relation to potential onshore gas development. In preparation for this engagement, the UQ team reviewed submissions to the Pepper Inquiry and the more recent Senate Inquiry into *Oil and gas exploration and production in the Beetaloo Basin (2021)*¹⁸ to better understand the positions of stakeholders and the range and nature of concerns about onshore gas development in the Beetaloo Sub-basin.

Table 3 summarises the key issues raised during stakeholder meetings. All comments and suggestions for the SCE studies have been accommodated as far as practicable in the design of the SoW.

Table 3 Issues raised in stakeholder engagement around the SCE SoW

Summary of issues raised in SoW stakeholder engagement	Stakeholder group
Issues relating to the SCE SREBA studies	
UQ's involvement is welcomed with the expectation that the SCE study will be designed to be inclusive, respectful, fair and ethical, as transparent as possible and rigorous.	NGOs Pastoralists Community members Aboriginal organisations Land Councils Service providers Government agencies Regional Councils
Provide clarity about the purpose and use of the SCE SREBA study – particularly how it aligns with other processes (such as future Social Impact Assessments, other planning documents and processes).	NGOs Pastoralists Community members Aboriginal organisations Land Councils Service providers Government agencies Regional Councils
Comments on the boundaries of the study. Some stakeholders wanted certain communities included – others did not see their relevance.	Service providers Government agencies Regional Councils
SCE SREBA research team should spend time in communities to build relationships and gain input from residents.	Regional council Aboriginal organisations NGOs
Questions about the definition of culture and how the SCE can incorporate non-Aboriginal culture.	NGOs Pastoralists Regional Councils

¹⁸ Parliament of Australia 2021. *Oil and gas exploration and production in the Beetaloo Basin*. https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/BeetalooBasin

Summary of issues raised in SoW stakeholder engagement	Stakeholder group
SCE studies must adequately capture measures relating to pastoralism and life on pastoral stations (even though a smaller and dissipated proportion of the population).	Pastoralists NGOs Regional Council
Indicators can also measure processes and relationships, not just focus on outcomes.	Expert
Suggestions for NT-based research team members (to mitigate possible COVID-19 disruption).	NGOs Government agencies Regional Councils Land councils
Concerns about the ability to achieve a quality outcome within the established timeframe.	NGOs Community members Aboriginal organisations Land Councils Service providers
SCE studies should acknowledge stakeholder interests held outside of the study area – also cultural connections outside the study area.	NGOs Aboriginal organisations
A suggestion to ensure that young peoples' voices are heard in the SCE study, as they will be the ones living with the onshore gas industry should it proceed.	Aboriginal organisations NGOs Government department
Questions about where data is stored and what will be done with it/ how it will be used after the project concludes.	Aboriginal organisations Pastoralists
Concerns about local capacity to undertake ongoing monitoring for the SREBA studies.	Regional Councils NGOs
SCE studies should capture economic impacts and benefits to the region (particularly to see if promised benefits are realised or not).	Regional council NGO
Questions about the UQ Centre for Natural Gas and its relationship with the gas industry.	NGOs
<i>Issues relating to onshore gas development (what to measure)</i>	
Concerns about the future of water quality (i.e. potential contamination risk) and quantity from aquifer drawdown.	NGOs Pastoralists Community members Aboriginal organisations
Concerns about potential impacts on existing road infrastructure and traffic.	NGOs Pastoralists Service providers
Concerns about capacity to maintain quality health, education and housing support and infrastructure (particularly waste management) with a potential increase in population.	Regional council Aboriginal organisations Pastoralists Service providers Community members
Concerns about the impact of development on access to Country.	NGOs Community members Aboriginal organisations Land Councils
Concerns about biosecurity including potential to introduce pests/diseases and/or accelerate pest and weed spread.	NGOs Pastoralists
Concerns about gas industry operations interfering with existing pastoral operations.	NGOs

Summary of issues raised in SoW stakeholder engagement	Stakeholder group
	Pastoralists
Potential benefit to build relationships with gas companies and local subcontractors/suppliers.	NGOs Pastoralists Aboriginal organisations
Potential economic diversification benefits.	NGOs Aboriginal organisations Government agencies Regional Councils
Potential workforce opportunities, including Indigenous employment.	NGOs Pastoralists Community members Aboriginal organisations
Concerns about potential increased greenhouse gas emissions from development.	NGOs
Concerns about development of the Northern Territory and considerations of climate change impact.	NGOs

3.2.2 Engagement preferences and barriers

Engagement preferences were canvassed during the engagement with stakeholders. All stakeholders indicated that they would like to be kept updated regularly on the project, and most would prefer these updates to be via direct email and/or in a project newsletter. Many of the stakeholder groups we spoke to offered to assist the SCE studies process if they could by mobilising their networks or contributing information and contacts.

While there must be caution around data and information sharing, where it is practical and appropriate some data already being collected by business and trade organisations, government departments and service providers was thought to be sharable under specific circumstances. Service providers, government organisations, non-government organisations, industry, and business organisations each indicated that a representative would be able to attend and participate in proposed project activities in 2022.

Pastoralists noted specific times of year when they would likely not be available and that because of the distance and time involved in participating in community events, they would prefer project activities that could be linked with existing events in their calendar (e.g. meetings, conferences and camp drafts).

With on-the-ground face-to-face engagement being a preference for this study, stakeholders identified a risk to the project if the research team was unable to travel to the study area. In respect of travel, there was also the risk of COVID19 outbreaks, vulnerabilities of communities, or travel restrictions, which would need to be considered. For this reason, it was suggested to have a research team member located in the Beetaloo region for a duration of the study.

Land Councils are key organisations and have been identified as being the proper pathway to engaging with Traditional Aboriginal Owners of Country and their families. As well as engaging through the appropriate channels, the engagement activities for the SCE studies are designed to create opportunities for all those in the study area to provide input and so public events are also planned.

3.3 Data mapping

A desktop data mapping exercise provided an understanding of what data is publicly or readily available and at what scales and timeframes (see Appendix B). Some data that could be used for the SCE study is already being collected and/or held by a range of government and non-government organisations. Initial stakeholder engagement indicated a willingness amongst most data-holding stakeholders to share data where appropriate and under agreed protocols.

3.4 Ethics application

The University of Queensland is committed to promoting a culture of responsible and ethical research. According to the [National Statement on Ethical Conduct in Human Research \(National Statement\)](#), research conducted with or about people is considered Human research and requires obtaining ethical clearance. UQ researchers have specific obligations to ensure that all ethics approvals are obtained prior to the work commencing.

Staff and students at UQ are required to conduct themselves in a manner consistent with the [Australian Code for the Responsible Conduct of Research](#), the *National Statement*, and the standards set out in the [UQ Code of Conduct](#).

Researchers external to the University are also expected to adhere to the same standards and will be named on the ethics documents. Local Aboriginal researchers and sub-contractors will be provided training in research ethics and the expectations required of them prior to commencing work.

To be ethically acceptable, human research must comply with the *National Statement* and demonstrate the values of research merit and integrity, justice, beneficence and respect.

Research involving Aboriginal and Torres Strait Islander Peoples must also be conducted in accordance with:

- [Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and Communities: Guidelines for Researchers and Stakeholders](#)
- [Keeping Research on Track II](#)
- [Code of Ethics for Aboriginal and Torres Strait Islander Research](#).

To gain approval, researchers must provide a full description of the project activities and clearly demonstrate that the research has merit and reflects the ethical values and standards required. This includes articulating considerations of risks and benefits for all participants in terms of recruitment and communications, data collection and storage and use of data.

The research team must lodge the ethics application for review using the online portal and report to the relevant human research ethics committee if and where any changes are made to the proposed research plan.

The proposed research plan for the SoW was submitted for full ethics review on 2 November 2021. The application and supporting documentation, including letters of support from key gatekeeper organisations, was reviewed by the committee on 16 November 2021. The University of Queensland's human research ethics committee approved the application for this project on 17 January 2022.

The research team (and the NT Government and supporting organisations) note that variations to the proposed activities may need to be made and these will be covered by lodging a variation to the human ethics approval documentation.

3.4.1 Data and information management

Wherever practicable, publicly or readily available data will be used to inform the SCE studies. Data will be collected or shared with from others with proper processes for agreement and consent. Data will be managed according to the agreed SCE Knowledge Protocol and the human ethics data handling and storage standards. UQ has an internal, password secure data management system that will be used if appropriate.

The SCE Knowledge Protocol will be established in consultation and agreement with relevant stakeholders in the preliminary steps of the project in early 2022. It will describe how Aboriginal knowledge and data is to be collected, protected and managed safely.

Wherever practicable and appropriate, project workshops, focus groups and interviews will be recorded (audio/video) for accuracy. During the engagement for the SoW, some stakeholders expressed a wish that their contribution be recorded (similar to the Pepper Inquiry process) while for others, recording the project's

activities ensured full transparency, which was believed to enhance credibility around the process. All the recordings, transcripts, and information will be kept confidential and stored securely (password protected) by UQ. Only UQ team members will have access to the project files containing information gathered during the project.

In compliance with human ethics, consent will be sought for anyone and all recordings and data collected. Changing consent is possible. If a stakeholder wants to change content, update content and remove content, there are processes to enable this to occur as part of the project.

4.0 SCE study design: Scope of Works

This project requires a staged approach with multiple methods and iterative engagement. The staged approach allows engagement that builds on the activities and knowledge generated in previous activities.

The review of leading practice shows that a co-design and collaborative approach is recommended for all community-based research, particularly when research involves First Nations Peoples.

Generally, the SoW is designed to be open and inclusive with a priority to engage with Beetaloo Basin residents, rights holders and stakeholders.

Participants in this project include two main categories:

1. professional representatives of organisations with interests in the Beetaloo region.
2. Beetaloo Basin 'Communities of Interest' residents, rights holders and stakeholders.

Targeted selection of participants in the research will take into account the following considerations:

1. the participants are appropriate sources to support the objectives of the research
2. an appropriate range of 'voices' will be heard
3. the intent to be as inclusive as feasibly possible
4. recruitment will not involve any coercion.

Information about the project and the process will be provided by a researcher to all participants via verbal explanation and an accompanying Participant Information Sheet. Furthermore, written consent (via consent forms) will be obtained from all participants prior to their involvement in the research process, with assistance from the research team if required. Where needed, community research partners will be available to explain consent in the relevant language for non-native English speakers.

Participation is completely voluntary, and participants are able to share as much or as little as they wish. Participants are free to withdraw at any time for any reason, and will be reassured that this will not harm their relationship with the researchers, or the NT Government.

4.1 Preparatory work

Several preliminary steps need to be undertaken prior to indicator selection and the conduct of research activities.

- Develop an agreed SCE Knowledge Protocol (Aboriginal knowledge) that provides a consistent governance framework for the collection, storage and use in reporting during the SCE studies. A facilitated group discussion with information and data holding organisations and representative groups will be held early in 2022 to draft an agreed protocol. Examples of successful similar protocols will be shown, discussed and adapted.
- Establish communications plan and prepare and/or collate material. Ensure adequate culturally appropriate information is available to enable meaningful participation in project activities.

- Compile a proposed list of indicators that may be selected or adapted for the SCE study. These will be informed largely from the data mapping exercise and literature review undertaken in the development of the SoW.

4.2 Indicator selection

The baseline assessment will use an indicators approach for each theme as described in Section 2.2.4. The indicators will be selected using participatory processes and then validated and socialised with community leaders and representatives within the study area. Indicators should reflect the characteristics of Beetaloo communities that are important to people and also their concerns and aspirations for future development. Indicators will be both qualitative and quantitative.

A preliminary set of indicators will be prepared for presentation at the indicator selection workshops. These indicators will reflect stakeholder engagement undertaken in the preparation of the SoW, existing data availability, and community indicators and measures used elsewhere both in Australia and internationally.

The workshops will be organised around each of the SCE themes.

4.3 Data collection

The main data collection methods involved in this project are:

1. data retrieved from publicly available data sources and by agreement from collaborating organisations
2. participatory workshops in the major centres with group and individual discussions in communities of interest across the region
3. survey completion via interview with individuals or small groups as preferred and convenient.

These activities are intended to both ground truth existing and publicly available data, and to fill data and knowledge gaps. The data gathered in the project will be used to create regional and community profiles. Data will be reported in aggregate at the appropriate level (region or community).

The SCE agreed indicators will form the framework for data organisation. The indicators will be a mix of qualitative and quantitative measures. There is also the capacity to add quotes, vignettes, or storyboards to provide contextual and systemic detail.

Data gathering activities will be electronically recorded with the permission of the participants. In the absence of permission to record the interviews written notes only will be taken.

Data will be gathered and managed according to both research ethics requirements and the SCE Knowledge Protocol agreed in the preliminary step.

Data validation will occur through focus groups held in regional communities across the Beetaloo Basin. These focus groups will allow community input and ensure that the selection of indicators and data collection methods suit community preferences.

4.4 Strategic assessment

The strategic assessment component is to understand how an onshore gas industry might affect people and their surroundings, including their lifestyles, cultural and spiritual practices, livelihoods, perceptions, expectations and values. The strategic assessment is also to collectively identify features that may be sensitive to development and consider the cumulative effect of multiple activities.

Information about proposed onshore gas industry development and other proposed projects, including renewable energy, mining, horticulture and tourism projects will be gained in a cross-industry workshop in the early stages of the SCE study. This workshop will be revisited after data has been collected to discuss how proposed projects might affect the characteristics and values identified in the Beetaloo communities.

After reporting on the completed regional and community profiles, discussions and activities will be conducted to identify those social, cultural and economic parameters and qualities that are thought to be of high value and importance and potentially subject to cumulative impact from future industry development.

4.5 Outputs

Preliminary baseline findings will be compiled into regional and community profiles that show data for each indicator by theme (and insights on trends and interrelationships where possible) along with stories that illustrate the indicator meaning and measures. These will be reported back to participants through feedback workshop in the major centres, and through focus group discussions held in regional communities. There will also be a final report that will document and evaluate the processes of engagement, the data collection, the strategic assessment and propose an ongoing social, cultural and economic monitoring program.

Another key expected output from the SCE studies is a locally agreed set of social, economic and cultural indicators that can be used in a participatory ongoing monitoring framework.

5.0 Project plan and timeframe

The project plan consists of six stages or steps to be conducted between January and October 2022. The main activities are workshops and focus groups with most of the data collection field work to be undertaken in the dry season between April and August 2022.

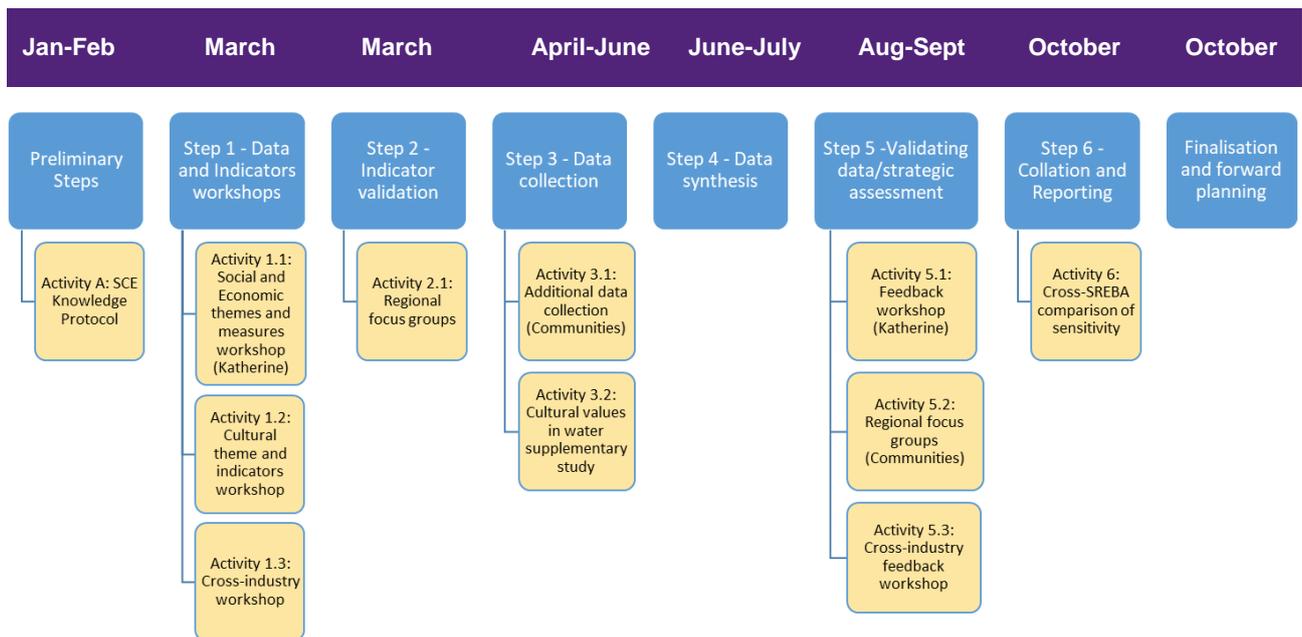


Figure 4 Study timeline

5.1 Project requirements

5.1.1 Resources

The researchers conducting this work will have appropriate skills in social sciences, stakeholder engagement and participatory processes and high levels of cultural awareness.

Collaboration with key gatekeeper organisations, such as the Northern Land Council and trained to assist in data collection.

Where appropriate, information and advice will be used to inform other SREBA studies.

5.1.2 Access permissions

Researchers are required to coordinate with the SREBA Engagement Manager to ensure stakeholders and landowners are notified and contacted in accordance with the SREBA Communication and Engagement plans and to avoid duplication of effort. Permission must be obtained from the relevant landowners before entering properties. This includes pastoral properties and Aboriginal managed/owned lands.

For Aboriginal lands, a permit to undertake field work must be sought through the relevant Land Council, and permission to access specific areas should be secured from appropriate traditional owners and community councils. The engagement of local community members as Aboriginal researchers for field work/data collection would assist in building relationships with community members.

5.2 Project risks

Table 4 presents the potential risks to the project. The project is assessed at a relatively low risk as the research has been the result of community and representative organisation requests.

Table 4 Potential project risks

Potential Risks	Mitigation Measures
Travel and access restrictions related to Covid-19 (i.e. inability to conduct face-to-face engagement)	<p>If the study areas are deemed to be in lockdown, delays cannot be mitigated.</p> <p>Ensure researchers are fully vaccinated.</p> <p>Establish early relationships with local community members/residents.</p> <p>If the researchers are unable to travel, they will work with communities, advisors and representative organisations to adapt the project methodology.</p> <p>Where possible, engage online and utilise online platforms.</p>
Contracting Covid-19 or other infections before or during fieldwork	<p>Test temperature before going to the field and daily while in the field. Undertake (optional) Covid-19 and/or influenza test 3 days before the trip. If a positive result, feeling unwell and/or have flu-like symptoms, cancel trip or substitute personnel.</p> <p>While travelling in the aircraft, ensure that mask is worn, ensure hygiene standards are adhered to throughout the trip.</p> <p>Where possible, maintain a 1.5 m separation.</p> <p>Take gloves, masks, hand sanitisers, spray disinfectants and disposable wipes to clean all high contact surfaces in the car before trips and between driver changes.</p> <p>Stop work, self-isolate and seek medical aid immediately if feeling unwell with flu-like symptoms.</p>
Resources are inadequate to undertake all the work to the extent required	<p>Department of Chief Minister and Cabinet has experience designing this kind of work and has undertaken careful assessment and prioritisation of scope components.</p>
Availability of appropriate expertise	<p>Relevant expertise is available in the NT and Australia more broadly.</p> <p>Institutions possess expertise in social research, social science, cultural knowledge and anthropology.</p>
Limited engagement	<p>Translate materials where appropriate and use interpreters when required to encourage participation.</p> <p>Advance notice of engagement to ensure maximum participation.</p>

Appendix A Community and stakeholder engagement plan

A-1 Key stakeholders

Key stakeholders include:

- Land Councils (e.g. Northern Land Council and Central Land Council) and the Aboriginal Areas protection Authority
- pastoralists and agricultural industry peak bodies
- government, government agencies and statutory authorities (i.e. local, state and federal)
- Native Title and Aboriginal organisations
- industry peak bodies (i.e. including oil and gas companies and other industry stakeholders).
- service and infrastructure providers
- business and trade organisations
- non-government organisations and environmental organisations (NGOs)
- recreational and community associations and programs
- business owners/operators
- research institutions
- residents.

A-2 Engagement approach

Table 5 describes the key focus of community and stakeholder engagement for the project.

Table 5 Community and stakeholder engagement focus

Milestone	Community and Stakeholder Engagement Focus
Early engagement	Scope of works - preliminary stakeholder engagement, data mapping, media monitoring, ethics application, SoW materials including presentations, an information sheet and community bulletin.
2022 project activities	SCE Knowledge protocol, Indicator selection and validation, themes and measures workshops, regional focus groups, interviews and surveys for data collection, data validation and feedback, strategic assessment.

A-3 Stakeholder engagement tools

A-3-1 Engagement tools, materials and methods (may need to be amended due to COVID-19 considerations)

Several of the following engagement tools were successful in early engagement (2021) and are recommended in 2022:

- gain an understanding of scheduled events and meetings within existing networks (e.g. natural resource management groups, regional industry and business groups, sports and recreation event, Isolated

Children Parents Association). Where possible, engagement should align with or leverage scheduled events so as not to place additional burden on participants.

- face-to-face and online meetings. While online engagement does not replace face-to-face interaction, most stakeholders engaged in the early engagement process had the capability and were willing to engage online if needed. For some, online engagement was preferred as it reduces travel time and costs. If COVID-19 associated risks or disruptions are deemed too great (in consultation with Land Councils, pastoralists, Northern Territory Government, etc.), the studies will pivot to an online format.
- participatory workshops – representatives from stakeholder groups and organisations will be invited to contribute their subject matter knowledge around each of the SCE themes at a series of (around 40 people) workshops to be held in Katherine and/or Darwin.
- smaller focus group discussions in regional centres to validate the discussions and outcomes from the workshops.
- face-to-face structured interviews in groups (or privately if preferred) will be the main engagement method for data collection. Social media and public advertising will be used to recruit participants as well as through existing networks and appropriate pathways for Aboriginal engagement. The data collection questions will be formatted and presented in a way that can be easily converted to an online format.
- presentations to and consultation with the Beetaloo Regional Reference Group.
- project Information Sheets for wider distribution.
- community Bulletin notice.
- Bushtel has online information for most of the communities in the Beetaloo region. This information includes upcoming events and as far as possible, information about whether or not the community is in mourning.
- project email.
- social media – dedicated project pages will be set up on social media platforms such as Facebook and Instagram. This will provide information about upcoming engagement opportunities and provide a forum for stakeholders to contact the research team and comment on the project.
- Aboriginal language interpreters will be used where requested or where appropriate. In addition, the recruitment of local Aboriginal researchers could consider local language skills.
- audio-visual material – a short explanatory video about the SCE SREBA studies may be an effective way to engage a wide audience and increase participation in the studies.

A-4 Evaluation

The success of communication and engagement activities will be evaluated through a range of mechanisms which may include:

- analysis of stakeholder feedback and communication – anecdotal comments and feedback during engagement
- media coverage analysis (including social media)
- project email enquiries
- collection of comments and feedback in engagement activities.

Appendix B Data mapping activity

B-1 Existing data

Table 6 presents the existing available data for the Beetaloo Basin.

Table 6 Data availability – alignment of community capitals with SREBA themes

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
People and communities	Human and social capital	Population, health and wellbeing, crime and safety, skills and education, cohesion and connectedness, standard of living, community development, participation, fears and aspirations, discrimination and inclusiveness	Estimated Resident Population (Indigenous and non-Indigenous)	Australian Bureau of Statistics (ABS) Census	Five years. Data sourced for 2006, 2011 and 2016.	Local Government Area (LGA), Statistical Area 2 (SA2), State Suburb (SSC)	2
			Population	ABS Census	Annual (2001-2020)	SA2	1
				National Aboriginal and Torres Strait Islander Social Survey (NATSISS)	Six years 2014-15.	State	
			Age and gender	ABS Census	Five years. Data sourced for 2016.	LGA, SA2, SSC	2
				NATSISS	Six years. 2014-2015.	State	
			Enrolment numbers, school attendance rates	Department of Education - Australian Curriculum, Assessment and Reporting Authority (ACARA)	Annual	By School, No. of enrolments, Index of Community Socio-Educational Advantage, Total staff	1
Educational Attainment – highest year of school completed	ABS Census	Five years. Data sourced for 2016.	LGA, SA2	2			

¹⁹ Data Type 1 – data is collected, relevant and available either through publicly available sources or identified collaborators. Data Type 2 – data is collected and available but needs to be adapted or updated. Data Type 3 – data is not collected and requires field work to collect the data.

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
			Post-school qualifications	ABS Census	Five years. Data sourced for 2016.	LGA, SA2	2
			Socio-economic indicators for areas (SEIFA)/ Index of relative social disadvantage	ABS Census Public Health Information Development Unit (PHIDU)	Five years. Data sourced for 2016.	LGA, SA2, SSC	2
			Hospital admissions by LGA, death by cause i.e. respiratory by LGA, Chronic disease estimate	PHIDU	2014-2018 Infrequent.	LGA, State	2
			Life expectancy	ABS Census	Five years. Data sourced for 2016.	State	3
			Hospital admissions by select health indicators e.g. diabetes, respiratory system disease, asthma	PHIDU	2018.	LGA, State	2
			Number of deaths by select health indicators e.g. deaths from respiratory system disease, suicide and self-inflicted injuries	PHIDU	2014-2018 Update when data available.	SA2, LGA, State	2
			Crime against people, crime against property	NT police, fire and emergency services	Annual	Northern and southern command statistics Incarceration data available by state	2

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
			Aboriginal Torres Strait Islander (ATSI) people who experienced physical violence in the last 12 months	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2/3
			Tourism – NT visitor statistics (Number of visitors and expenditure)	Tourism NT Tourism Research Australia	2019 Annual – 2020 data not yet available.	Region (e.g. Katherine-Daly, Barkly), State	2
			Crash Data – Fatality and serious injury by total and LGA	Towards Zero – Road Safety NT	Annual	State – urban and rural	2
			Standard of living/Cost of living	N/A	N/A	N/A	3
			Diversity and vulnerability inc. people born overseas, language spoken at home other than English, disability (need for assistance)	ABS Census	Five years. Data sourced for 2016.	SA2, LGA, State	2
			Indicators of income support inc. disability support pensioners, number of persons receiving unemployment benefit	PHIDU	Data sourced for 2020. Uncertain if data is available annually.	Town, SA2, State	1
			Mobility – lived at same address 1 year ago, lived at same address 5 years ago	ABS Census	Five years. Data sourced for 2016.	SA2, State	2

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
			Community strength (e.g. % of volunteers)	ABS Census	Five years. Data sourced for 2016.	SA2, State	2
			Fears and aspirations	Available media articles, media posts etc.	Available when posted.	State, community. Requires consultation to inform.	3
			Community development	N/A	N/A	N/A	3
			ATSI people who are daily smokers	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2
			ATSI people engaging in risky single occasion drinking	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2
			ATSI people reported having a long-term health condition	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2
			ATSI people had provided unpaid care for a person with disability	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2
			ATSI people who were living in an overcrowded dwelling	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
Living environment	Natural/Built capital	Amenity, noise, dust, pollution, liveability and leisure, technology availability	Technology availability – households with access to the internet	NT Primary Health Network (PHN)	2020. Unsure of frequency of update.	Katherine region, Barkly region	2/3
			Housing availability and affordability	Realestate.com SQM Research	Monthly	Postcode, SSC, SA2	2
				ABS Census	Quarterly, annually. Five years. Data sourced from 2016.		
			Recreation	Sports clubs & associations, youth groups etc.	N/A	N/A	3 Consultation required to inform.
			Transport services	Bushtel	Annually.	Community	1
Location desirability	N/A	N/A	N/A	3 Consultation required to inform.			
Strong voice	Political capital	Inclusiveness, governance, decision making	Governance and decision making – Local government, local authorities, elder governance, native title governance	Local government plans	Local authority meetings held monthly.	N/A	3 Consultation required to inform.

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
			Self determination	N/A	N/A	N/A	3 Consultation required to inform.
			Level of influence	N/A	N/A	N/A	3 Consultation required to inform.
Cultural identity	Cultural capital	Connections to kin and country including traditional knowledge, land management, cultural groups and languages, cultural practices and observations	Native Title information Indigenous Land Use Agreements (ILUAs)	Ranger groups Native Title claims/determinations Bushtel Northern Land Council	As occurs	Native Title boundaries. ILUA boundaries.	1
			Languages in the region/language speaking	Bushtel	Annually	Communities	2
			Ceremony attendance	N/A	N/A	N/A	3 Requires consultation. Data has the potential to be sensitive and may not be able to be collected.

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
			ATSI people who speak an Australian Indigenous language	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2
			ATSI people who identified with a clan, tribal or language group	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2
			ATSI people who were regularly involved in cultural events	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2
			ATSI people who felt they were able to get support in times of crisis from outside the household	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2
Healthy Country	Natural/Cultural capital	Sustainability, environmental management and connections, cultural fire management, cultural water practices	Existing environmental management and cultural heritage management plans	N/A	N/A	N/A	3 Requires further consultation.

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
			Number of on-country visits	N/A	N/A	N/A	3 Requires consultation. Data has the potential to be sensitive and may not be able to be collected
Local economies	Financial capital	Jobs and employment, participation, sources of income, industries, businesses, economic activity	Labour force status (part-time, full-time etc.)	ABS Census	Five years. 2006, 2011, 2016	LGA and SA2	2
			ATSI people employed	NATSISS	Six years. 2014-2015.	State Classified as remote/non-remote	2
			Unemployment rate	Small Area Labour Markets (SALM)	Annual.	SA2, State	1
			Employment by sector	ABS Census	Five years. 2006, 2011, 2016	LGA and SA2	2
			Income	ABS Census	2018	Median household income by LGA	2
			Median household income	ABS Census	Five years. Data sourced for 2016.	SA2, State	2
			Gross regional product (GRP)	Economy.id	Annual. 2020	LGA	1-2

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
			Net imports and exports	Economy.id	Annual. 2020	LGA	1-2
			Economic output by industry	Economy.id	Annual. 2020	LGA	1-2
			Value Added	Economy.id	Annual. 2020	LGA	1-2
			Number of Aboriginal Corporations	Office of the Registrar of Indigenous Corporations (ORIC)	Annual	Town	1
			Business Count	ABS	Annual	State	2
				NT Department of Industry, Tourism and Trade	Annual	State, Region	
			Skills information/ Industry information e.g. turnover	Industry Skills Advisory Council NT (ISAC NT)	N/A	Per industry/region	2-3 Data not publicly accessible.
			Skill shortage	Parliament of Australia – Book Chapter Department of Industry, Tourism and Trade	N/A	State	2-3
Infrastructure and services	Built capital	Housing and accommodation, schools, policing, power, water, health, transport services, communications, roads (accessibility and quality) and traffic	Services and Facilities	Town councils Bushtel Aboriginal corporations Power and water corporation	Updated when available.	Access information and community facilities	1-2

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
			Housing tenure, dwelling numbers, dwelling type	Realestate.com, SQM research, ABS Census	When updated on website. Annually. ABS five years.	LGA and SA2	2
			Housing stress (households where rent/mortgage payments are less than or greater than 30% of household income)	ABS Census	Five years. 2006, 2011, 2016	SA2, LGA, State	2
			Social Housing – state or territory housing	ABS Census	Five years. 2006, 2011, 2016	LGA	2
			Short-term accommodation	Google Bushtel	N/A	Community, NT	2
			Building approvals	ABS Census	Five years. Data sourced from 2016.	LGA, State	2
			Power and water availability	Power and water corporation	N/A	N/A	3 Consultation required.
			Health services available in each community/region, including services available e.g. dental, outpatient facilities etc.	Bushtel, google	N/A	Location of service	1-2

SREBA Theme	Matched Community Capital	SREBA Guidance Note Examples	Data Type	Source	Frequency of updates	Data Boundary	Data Type ¹⁹
			Regional development – resource, industry and infrastructure projects	Regional Development Australia NT	When updated on website.	Location of project within the State	1
			Traffic volumes, traffic counts	Department of Infrastructure Planning & Logistics (Transport & Traffic data)	Annual traffic report	Main roads. State.	2-3 Data available is difficult to comprehend.

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