

## Scientific Inquiry into Hydraulic Fracturing in the Northern Territory

### Beetaloo sub-basin Social Impact Assessment Summary Report

17 January 2018



When you  
think with a  
global mind  
problems  
get smaller

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# **Scientific Inquiry into Hydraulic Fracturing in the Northern Territory**

Prepared for  
Scientific Inquiry into Hydraulic Fracturing in the Northern Territory

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# 1. Background

The Terms of Reference of the Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Gas Reservoirs and Associated Activities in the Northern Territory (the Inquiry) require the independent scientific panel (the Panel) to determine the nature and extent of the risks of hydraulic fracturing of onshore unconventional shale reservoirs and its associated activities on water, land and air conditions in the Northern Territory, as well as on the social, economic and cultural conditions in the Northern Territory.

The Inquiry engaged Coffey and its partners the University of Queensland Centre for Social Responsibility in Mining (CSRSM) and CSIRO to address three elements relating to the social and economic conditions.

First, the development of a leading practice framework (SIA Framework) for the identification, assessment and management of the potential social impacts associated with the development of onshore unconventional gas in the Northern Territory, and a description of how this framework could operate in conjunction with Northern Territory and Commonwealth environmental assessment frameworks.

Secondly, as described in the Inquiry Background and Issues Paper (available at <https://frackinginquiry.nt.gov.au/background-and-issues-paper>) the Panel will *'use the example of a possible unconventional shale gas project in the Beetaloo Sub-basin, which is where exploration is most advanced, as a case study to demonstrate how the framework could operate, including how risks are to be identified, assessed, and managed'*. As exploration for onshore unconventional gas is at an early stage in the Northern Territory, scenarios for any future development in relation to location, scale and timing are uncertain, which conditioned this assessment to be high-level and indicative of potential impacts of onshore unconventional gas development.

Thirdly, to *'describe, with reference to the literature and examples from other jurisdictions, the concept of a "social licence to operate" as it applies to the onshore unconventional gas industry in the Northern Territory'* and to investigate *'measures that onshore unconventional gas industry and government can take to enable industry to earn and maintain a social licence to operate in the Northern Territory'*. Broadly speaking, a 'social licence to operate' is a measure of the acceptance of an industry within society.

The scope of work was undertaken through a combination of research, analysis of public submissions to the Inquiry, and engagement with key stakeholders through a program of targeted consultation with communities in and around the Beetaloo sub-basin, as well as consultation with government agencies and relevant organisations in relation to their views on the elements of an appropriate SIA Framework, an industry 'social licence to operate', and the potential for social impacts and opportunities for benefits associated with a conceptual development scenario in the Beetaloo sub-basin.

## 2. Context

Following an extensive community engagement program, the Northern Territory Government released its Economic Development Framework<sup>1</sup> (the Framework) on 20 June 2017. The Framework indicated that in the short to medium-term *‘industry sectors expected to experience strong demand growth included energy and minerals, tourism, agribusiness, and international education and training’*. With respect to energy and minerals, the Framework stated that *‘To ensure Territorians benefit from our resource wealth we need to ensure there is community support for industry activities and that investors have confidence and certainty when they make investment decisions. In the near-term, government and industry need to work together to ensure key concerns held by the community are addressed and there is a clear, agreed and endorsed pathway to facilitate industry development’* (emphasis added). High-level actions to advance implementation of the Framework included the development of a *‘communication strategy to inform the community of benefits from energy and minerals industry activity, including business and job opportunities, and to clarify the impact on the environment’* and a commitment to *‘review energy and mineral legislation to improve consistency in applying legislation’*.

The Inquiry has acknowledged the importance of addressing the potential for social impact, and to develop and maintain, in collaboration with industry proponents, a ‘social license to operate’ associated with the development of a new component of the oil and gas industry (onshore unconventional shale gas) in the Northern Territory. Key to obtaining a ‘social licence to operate’ is information about how the communities’ concerns could be addressed.

CSR<sup>2</sup> has proposed a SIA Framework for addressing community concerns about how the social impacts will be identified, understood and managed. Drawing upon the lessons of gas industry development on a regional scale in new domains, in Australia (e.g., Surat Basin) and internationally (shale gas development in the United States and South Africa), CSR’s recommendations emphasise the importance of adopting a strategic industry approach for baseline characterisation. This should be complemented with comprehensive education and awareness programs for the potentially affected communities so that informed consideration may be given to the potential for impacts that may be experienced, as well as opportunities that may be available for capture. A key feature of the SIA Framework is the requirement for ongoing participatory monitoring and government-community-proponent collaboration in the development and implementation of strategies to mitigate impacts and capture socio-economic development opportunities.

The Beetaloo sub-basin SIA case study<sup>3</sup> adopted relevant aspects of the SIA Framework to identify and assess the potential social and economic impacts of a conceptual development. The conceptual development was based on the Shale WIND scenario developed by ACIL Allen and presented in their report<sup>4</sup>.

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<sup>1</sup> See <https://edf.nt.gov.au/home>

<sup>2</sup> Witt, K., Vivoda, V., Everingham, J., Bainton, N. (2017). A framework for social impact assessment of shale gas development in the Northern Territory, Centre for Social Responsibility in Mining, Sustainable Minerals Institute, The University of Queensland.

<sup>3</sup> Coffey Services Australia Pty Ltd, Beetaloo sub-basin Social Impact Assessment Case study, Report to the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory, December 2017

<sup>4</sup> ACIL Allen Consulting, The Economic Impacts of a Potential Shale Gas Development in the Northern Territory, Final Report to the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory, October 2017

The Beetaloo sub-basin is an area of the Northern Territory where exploration for shale gas is most advanced, and includes towns and communities typical of urban and remote areas of the Northern Territory. The socioeconomic context for undertaking the SIA case study of the conceptual development in the Beetaloo sub-basin is characterised as follows:

- The Beetaloo sub-basin has seen almost no industrial development. Some affected communities have experience with development. For example, experience with mining development south of Ngukurr (iron ore) and at McArthur River (large-scale underground and open pit mining of lead and zinc). The installation of gas transmission and lateral pipelines through the sub-basin (Amadeus Basin to Darwin Pipeline in 1986; the Elliott Spur Pipeline in 1989, and the McArthur River Pipeline in 1995) that occurred 20 to 30 years ago is not readily recalled by community members. The current installation of the Northern Gas Pipeline from just north of Tennant Creek to Mount Isa is in an early stage of development, and a significant distance south of the Beetaloo sub-basin communities.
- Economic activity is centred on agriculture development (pastoral operations throughout the sub-basin, horticulture south of Katherine and along the Roper Highway) together with Defense activity at RAAF Base Tindal, and tourism activity mainly servicing self-drive visitors. Regional service townships (Katherine and Tennant Creek) are located outside the sub-basin.
- Obvious significant disparities in social status and living conditions between remote Aboriginal communities and regional service townships, as a result of their remoteness affecting access to services, their poor state of housing, limited access to a functioning labour market, and differences in health and education status. This has a significant influence on the potential for community members to capture potential benefits from industry development should it occur.
- Community members have a reasonably high level of awareness (due to the activities of groups opposed to industry development) of historical issues surrounding the development of unconventional gas resources in other jurisdictions but not of the potential unconventional gas industry in the Northern Territory. The Inquiry's Interim Report (Inquiry, 2017b) acknowledged that levels of knowledge in Aboriginal communities about future development is inadequate.

In the absence of any firm proposals and limited information on how a shale gas field would be developed, the case study assumed that initial development would occur to the west of Larrimah and to the east of Daly Waters, in the areas that have shown favourable exploration results. It is assumed the projects would be offset by three years and produce gas for 25 years. Assumptions were made regarding the scale of the development and its key components, project stages and duration; construction and operation workforce numbers, employment policies (i.e., FIFO and DIDO), logistics and maintenance bases etc. The conceptual development was sufficiently defined to support the high-level assessment of social impacts of onshore unconventional gas development and identification of opportunities for benefits.

The nature and elucidation of the concept of the 'social license to operate' or 'how community acceptance of the industry could be assessed' was undertaken by the CSIRO<sup>5</sup>. CSIRO detailed the key drivers of trust and acceptance for the extractive industries in the Northern Territory, and in other jurisdictions and commodities. The drivers include feeling heard, respected and involved in decision making processes (procedural fairness), feeling that the benefits (and impacts) of extraction are shared fairly (distributional fairness), that government has the capacity and will to ensure public

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<sup>5</sup> Moffat, K., Lacey, J., McCrea, R., & Poruschi, L. (2017). Social licence to operate in the Beetaloo Basin and Northern Territory. CSIRO, EP177961.

interests are protected and industry held to account (governance capacity), that physical and social impacts are managed effectively and appropriately, and that interactions between company personnel and community members is a positive experience (contact quality). CSIRO proposed a measurement and modelling framework for 'social licence to operate', focusing on the following principles for its development:

- The engagement of a trusted third party – engendering trust and confidence in the process.
- Protection of community rights and safety.
- Longitudinal design – placing the experiences of community at the centre of the process, and to identify issues before they become conflicts.
- Accessibility of data – transparency of process and data provision back to community and other stakeholders is central to building trust that this is a vehicle for community voice.
- Inclusiveness of process – so that vulnerable, marginalised and special status groups are included in 'social licence to operate' research using appropriate methods.

### 3. Key findings

The following sections summarise the key findings of the three social elements of onshore unconventional gas development.

#### 3.1. The approach to assessing potential social impacts of industry development

Key characteristics of a leading practice SIA Framework for shale gas in the NT must include:

1. **Strategic assessment** is needed for a program of development. The strategic assessment would clearly identify the objectives of the program and define the scale (and staging) of development in terms of balancing economic, social and environmental impacts at local, Territory and national scales.
2. A **strategic regional approach** is needed that aligns individual projects and their outcomes with the objectives of the NT Economic Development Framework, regional planning objectives and community values and aspirations.
3. **Coordination and collaboration between multiple projects** is needed in order to minimise negative cumulative impacts, minimise the 'footprint' of the industry in the placing of associated infrastructure (including workers 'accommodation) and maximise long term social and economic benefits to local and regional communities.
4. Particular attention to **human rights issues**, and the rights and vulnerabilities of all Aboriginal peoples, (not only those recognised as Traditional Owners).



5. Particular attention to **psycho-social impacts**, in recognition of the interconnectedness of personal, cultural and environmental integrity for Aboriginal peoples. Also, in recognition of the potentially stressful nature of land access agreements for pastoralists.
6. An **independently led social baseline assessment**, using 'agreed indicators' to measure impacts, ongoing social performance of the industry and sustainability outcomes (the indicators should be selected in consultation with local people and stakeholders).
7. An **independently led community engagement** program with affected stakeholder groups to discern the significance of impacts and to co-develop acceptable and appropriate mitigation and enhancement strategies.
8. The SIA framework should contribute to an **open data policy** with **regular reporting** on the social, economic and environmental performance of the shale gas industry.
9. Each additional project should provide an adaptive SIA risk assessment that specifically addresses **cumulative impacts** and its contribution to the development program's objectives.

Gaps in the current Northern Territory regulatory environment for SIA are considered to include:

1. There are currently no mechanisms for strategic assessment (including strategic SIA) under NT regulations, although implementing strategic assessment has been accepted as a recommendation in a review of environmental assessment policy (the 2015 Hawke Report).<sup>6</sup>
2. There is scope for a strategic assessment under the *Environmental Protection and Biodiversity Conservation Act (EPBC Act) 1999 (CW)*, where matters of national environmental significance (MNES) may be affected. A map of protected matters<sup>7</sup> shows there are few matters that would trigger the EPBC Act in the NT. However, if the current 'water trigger' for coal seam gas and large coal projects was to be amended to include shale gas development (as water from underground aquifers is intended to be used) by the Commonwealth Government, all NT projects would be required to gain *EPBC Act* approval.
3. SIA is required only as a subset of an environmental impact assessment, and as such, has the potential to be undervalued in the approvals process.
4. While generic guidelines exist, there are no industry specific guidelines for conducting an SIA in the NT where there is a uniquely high proportion of Aboriginal people and interests.
5. There are currently no requirements or guidelines for cumulative impacts assessment.

Recommendations to adopt a leading practice SIA Framework include:

1. Initiate mechanisms for strategic environmental assessment of a specific program of shale gas development (e.g. Beetaloo sub-Basin) in either NT regulations (as recommended in the 2015 Hawke Report), or in partnership with the Commonwealth government in a Strategic Assessment Agreement under the *EPBC Act 1999*.

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<sup>6</sup> Hawke, A. (2015). [Review of the Northern Territory Environmental Assessment and Approval Processes](#). May 2015.

<sup>7</sup> Australian Government, Department of the Environment and Energy, (2017) Protected Matters Search Tool <http://www.environment.gov.au/webgis-framework/apps/pmst/pmst.jsf>

2. The Terms of Reference for strategic environmental assessment should include various specialist assessments, including cultural impact assessment. Due to the interconnectedness of Aboriginal peoples and their culture with environmental condition, predicting the significance of social (cultural) impacts (particularly for Aboriginal people, but also pastoral leaseholders) requires the integration of social, environmental, economic and cultural assessments.
3. Consult with the Commonwealth Department of the Environment and Energy in relation to possible amendments to the 'water trigger' under the *EPBC Act* to apply to shale gas projects, as it does for all coal seam gas and large coal projects. If the 'water trigger' were also to apply to shale gas projects, then Territory assessment processes must align with Commonwealth assessment requirements to avoid duplication.
4. Establish or enhance an independent authority (separated from government decision making) for the oversight of the strategic assessment, baseline studies and ongoing monitoring and reporting, as well as for social and environmental compliance auditing. This could be the existing NT Environmental Protection Agency to avoid structural complexity and the fragmentation of decision making that has confounded the effective regulation of the industry in other jurisdictions.
5. Collaboration and coordination between projects, and between gas companies, government and community organisations is necessary for effective identification, assessment and responses to cumulative impacts. A platform for such collaboration (such as a multi-stakeholder working group) would ideally be linked with the ongoing monitoring platform and come under the jurisdiction of the same independent Authority.
6. Third parties should be able to report grievances, or perceived breaches of conditions to the independent Authority where grievances relate to cumulative impacts and issues beyond the scale of project-level grievance mechanisms.
7. The costs of undertaking independent baseline studies (usually conducted by project proponents) should be recovered to an extent from project proponents (who would no longer have to do them individually, but who would use the available data in their risk assessments) by increasing the cost of the petroleum production license (PPL) for operators and/or by charging an annual levee or fee for use of the baseline data and ongoing monitoring and reporting platform.
8. Produce clear guidelines and simple fact sheets for negotiating Land Access Agreements in different tenure types that outline the rights of both the landholder and the project proponent. Considerable stress and negative impact has been associated with misunderstood land rights and perceived disrespect for attachments to, and interests in land.
9. Identify strategies to build local institutional and business capacity early. To best capture the potential economic benefits of shale gas development, adequate lead-time and institutional, business and individual capacity is required.
10. Negotiations with Aboriginal Traditional Owners (TOs) should be inclusive and transparent (on agreement). General informed consent is insufficient. Details of activities should be negotiated in recognition of rights to self-determination and to ensure these groups fully understand the terms of the project and the impacts, benefits and management strategies. The placement of each well and associated infrastructure should be negotiated on a case-by-case basis with local TOs to avoid any culturally sensitive places, and 'sacred sites' as identified by the Aboriginal Areas Protection Authority (AAPA). The process for such negotiations should be fully documented.

11. Royalty payments should not be exclusive to TOs, but a community benefits trust, or other fund designed to distribute economic benefits to regions should be established. (e.g. 'Royalties for Regions' schemes such as in Queensland and Western Australia).
12. Perceptions or evidence of negative impacts on the spiritual wellbeing and social cohesion in Aboriginal communities should be given high priority in risk assessment, as personal safety could be at risk.

## 3.2. The Beetaloo sub-basin SIA case study

The Beetaloo sub-basin SIA case study identified the threats to community social values. The threats assessed as likely or almost certain to arise in urban communities are:

- Increased risk of road accidents from construction and operations traffic, particularly heavy vehicles during the construction phase.
- Increased levels of anxiety for sub-basin residents over potential risks to groundwater resources.
- A perception that industry development approval is against majority community wishes, contributing to a weakening in trust in government.
- The potential for higher wages to affect local businesses on-going conflict between supporters and opponents of unconventional gas development.

The threats assessed as likely or almost certain to arise in rural communities are:

- Increased risk of road accidents from construction and operations traffic, particularly heavy vehicles during the construction phase.
- Heightened divisions in Aboriginal communities driven by perceived inequity in the receipt of royalties.
- Increased levels of anxiety for sub-basin residents over potential risks to groundwater resources.
- A perception that industry development approval is against majority community wishes, contributing to a weakening in trust in government.
- Heightened perceptions of cultural loss due to perceived impacts to water resources, and uncertainty about the ultimate scale of industry development and landscape alteration.
- The potential for reduced investment in pastoral and horticultural operations due to uncertainty over the long-term sustainability of groundwater resources

The identified threats (and impacts) identified in the high-level assessment can be mitigated and managed, as they are being managed in other onshore gas development areas. Effective management will require close collaboration between various industry groups and project proponents, government and the community to ensure that responsibility for management and reporting of sub-basin level impacts is clear, and that mechanisms for community feedback and response are widely-known and effective.

Ongoing effective community and stakeholder engagement is fundamental to the effective management of impacts and the maintenance of a 'social licence to operate'. Community and stakeholder engagement must commence in the strategic assessment phase at least two to three years prior to the project's environmental and planning approvals phase commencing. Key factors to consider in the development of a community engagement strategy include:

- The need for community industry awareness campaigns, particularly for Aboriginal communities. This needs to be an ongoing process, as the development and deployment of improved technology is proceeding at a rapid rate.
- The requirement for implementation of robust land access protocols.
- The need to provide regular environmental monitoring results to communities in a transparent manner that builds community confidence and trust in the monitoring process.
- Participation in regular community forums with government and other industry participants to discuss industry issues. Responsibility for the design and leadership of these forums may rest with government and peak bodies, however to be successful they will require the participation of industry at a senior level.
- The implementation of a Grievance Management Program, including community access to an independent advocate if necessary.
- The need for monitoring of community and visitor sentiment on a structured basis to ensure that the views of all sectors are heard and considered.
- The development and implementation of a workforce cultural awareness program and a workforce code of conduct to contribute to ongoing positive and supportive community relations.
- The development and implementation, in consultation with government, of local content policies and programs to maximise opportunity for Northern Territory business input and development.

### **3.3. A Social Licence to Operate**

A 'social licence to operate' is a term widely used in the community, though with no common conceptual understanding or agreed method for assessing its status amongst a community or group of stakeholders. With the widespread level of distrust experienced during SIA community consultation and Inquiry hearings, it is imperative that there be a means of independently assessing the status of community acceptance of industry development and operations. CSIRO research indicates that:

- The key drivers of trust and acceptance for the extractive industries in the Northern Territory include:
  - feeling heard, respected and involved in decision making processes (procedural fairness);
  - feeling that the benefits (and impacts) of extraction are shared fairly (distributional fairness);
  - that government has the capacity and will to ensure public interests are protected and industry held to account (governance capacity);
  - that physical and social impacts are managed effectively and appropriately; and

- that interactions between company personnel and community members is a positive experience (contact quality).
- Data from a CSIRO national survey of citizen attitudes toward the extractive industries revealed that for residents of the Northern Territory, good governance was significantly more important for social acceptance of the extractives than for residents in the rest of Australia.
- The most important predictor of social acceptance was perceived balance of benefits over impacts of mining, or its value proposition for the Territory and its people. Like the rest of Australia, perceived employment from extractives and financial community benefits was the highest predictor of 'balance of benefits over impacts' variable.
- The balance of benefits over impacts with respect to extractives was viewed quite positively in the Northern Territory, in line with the national average.
- Engagement with industry, community and government stakeholders revealed that uncertainty about how the industry would look and fracking as a technology was a locus of attention for all of these stakeholders. Reducing this uncertainty in a framework supported by government appears to be of real interest to most of those spoken with. And extending this, that government plays a more active and creative role in the discussion and engagement of these issues and the development of the industry itself.
- A measurement and modelling framework for 'social licence to operate' should be developed based on the following principles:
  - *The engagement of a trusted third party* – ensuring independence from vested interests.
  - *Protection of community rights and safety* – ethical and privacy standards are applied under the National Statement on Ethical Conduct in Human Research (2015), placing the safety of participants first.
  - *Longitudinal design* – placing the experiences of community at the centre of the process, and to identify issues before they become conflicts.
  - *Accessibility of data* – transparency of process and data provision back to community and other stakeholders in central to building trust that this is a vehicle for community voice.
  - *Inclusiveness of process* – it is important that vulnerable, marginalised and special status groups are included in 'social licence to operate' research using appropriate methods.

## 4. Conclusion and recommendations

CSRSM has proposed a leading practice SIA Framework that adopts the well-established and understood phases of social impact assessment. CSRSM's key recommendation is that future project-level SIA be conducted within the framework of a strategic SIA informed by sub-basin wide baseline studies. CSRSM recommends monitoring during the construction and operation phases of shale gas developments to enable the effectiveness of strategies and management measures developed to address the socioeconomic impacts to be measured and adapted to changing circumstances.

Independently-led community and stakeholder engagement is recommended, which is supported by CSIRO in its advice on what constitutes a 'social licence to operate'. Independently acquired or verified information that is transparently reported is seen by CSRM and CSIRO as crucial to building confidence in the affected communities and more broadly in the Northern Territory community.

The SIA case study identified the socioeconomic impacts of a conceptual development in the Beetaloo sub-basin. Importantly, it concluded that the impacts are manageable with appropriate strategies and programs. This conclusion was based on experience of unconventional gas development in other jurisdictions where social impacts have been, and are being, successfully managed. Understandably, the scale and pace of development has, in some instances, resulted in suboptimal outcomes. The lessons learned in other jurisdictions provide valuable insight to the practices and processes that can be improved.

The key findings of these investigations are:

- Strategic assessment is required to enable a comprehensive sub-basin wide baseline from which project-level and cumulative impacts can be identified, assessed and managed.
- The comprehensive baseline must be informed by independently-led project-independent studies that are participatory.
- Mitigation strategies and management measures must be developed through collaboration between territory and local government, industry and communities.

The highest risk issues identified in the investigations relate to Aboriginal communities and their unique circumstances. Aboriginal communities are beset by complex issues that are products of history, their current circumstances, and evolving policy.

The remoteness of the Beetaloo sub-basin and gas fields will naturally mitigate some impacts experienced in more densely populated areas where regional centres and towns provide opportunities for colocation of facilities. For example, it is expected that accommodation facilities will be located at the gas fields and remote from Aboriginal communities, thereby avoiding the effects of rapid population increase and competition for housing in vulnerable communities. In these circumstances, the key issue will be how to create opportunities for the people on whose country the gas fields will be developed.

Aboriginal communities are disadvantaged by their lack of experience of unconventional gas development, knowledge of its techniques and impacts, and how they are managed, and most importantly, how these relate to their country and circumstances. Awareness, education and participation in the planning and development process will be crucial to their engagement and ability to put forward ideas and suggestions for involvement in the industry and opportunities to benefit from the industry.

While independently-led baseline studies and independently-led community and stakeholder engagement may build community confidence in the planning and development process, it is crucial that proponents own the relationship with communities. Proponents need to develop working relationships with communities that are built on trust, respect and cooperation. CSRM and CSIRO's recommendations must have regard to the important role proponents play in community and stakeholder engagement and in supporting the strategies for managing the socioeconomic impacts of unconventional gas development.

Effective communication methods that build trust should incorporate:

- Raising awareness of the unconventional gas industry, the contemporary technology employed and environmental performance achieved (complex technology needs to be explained effectively to non-technical lay persons).
- Industry site inspections for community leaders and members to observe industry exploration and production activity, including the deployment of environment management measures in practice.
- Making available technical leaders to engage in dialogue around issues with community members and leaders.
- The allowance of adequate time to establish an authentic dialogue with Aboriginal communities.
- Environmental monitoring, management and reporting measures that include on-going community participation in planning and implementation.

Equity is a key issue in the distribution of benefits from resource projects. CSIRO noted that where this occurred, a 'social licence to operate' was more forthcoming. A key concern raised in the SIA case study and community consultation was the risk of dividing Aboriginal communities between the 'haves' and 'have nots' through royalty distribution.

Consideration must be given to the establishment of a transparent royalty distribution mechanism so that regional areas that host gas development may benefit commensurate with the impacts to which they are subject. This will involve novel approaches to the distribution of benefits under statutory agreements, for example Indigenous Land Use Agreements, where benefits are currently paid to the Traditional Owners registered as Native Title claimants.

## 4.1. Recommendations

A 'social licence to operate' for an unconventional gas industry, as explained by CSIRO (2017) is possible with implementation of the SIA Framework proposed by CSRM (2017). The Beetaloo sub-basin SIA case study and associated consultation has confirmed that inclusive, well-informed engagement with affected communities is critical to achieving a 'social licence to operate'. The following recommendations will facilitate the quality and effectiveness of the engagement, leading to an environment in which informed decisions can be made about the social, economic and cultural impacts of an unconventional gas development. The recommendations require a collaborative approach – which experience has shown – produces the best outcomes.

### Recommendation 1

The SIA Framework proposed by CSRM (2017) is implemented with appropriate lead time allowed for compiling a comprehensive social baseline. The framework to be implemented is to have regard to the following recommendations.

### Recommendation 2

Shale gas development proponents and the Northern Territory Government enter into a memorandum of agreement to share socioeconomic data to enable compilation of a comprehensive sub-basin social baseline that is periodically updated.

### **Recommendation 3**

Shale gas development proponents enter into a memorandum of agreement for cost recovery of expenditure on baseline study, whereby late entrants who benefit from the comprehensive social baseline proportionally fund the work of the first movers.

### **Recommendation 4**

A representative consultative committee comprising the Northern Territory Government, shale gas development proponents and community representative bodies is convened to deal with sub-basin wide issues and to integrate government and industry initiatives with community aspirations where appropriate.

### **Recommendation 5**

Shale gas development proponents implement awareness and education programs for affected communities that provide basic information on unconventional gas development, its impacts and their management ahead of discussion about impacts associated with a particular project. The programs involve suitably qualified technical experts to answer community questions and involve visits to operating unconventional gas fields to assist community representatives understand the activities and nature of impacts.

### **Recommendation 6**

The Northern Territory Government implements an awareness and education program on unconventional gas industry regulation that informs affected communities about the approval process and their rights under the applicable statutory processes including access to land.

### **Recommendation 7**

Shale gas development proponents build, own and maintain relationships with communities and are involved in consultation and the compilation of social baselines supported by independent consultants and technical experts.

### **Recommendation 8**

Aboriginal community engagement adopts a structured approach that incorporates preparatory meetings, dialogue on social values, industry awareness and education meetings, project-specific meetings covering proposed development and implementation issues. The meetings are timed and structured to accommodate the needs of each community noting the different issues confronting communities including the potential need for interpreters.

### **Recommendation 9**

Independent monitoring and evaluation is implemented and designed to differentiate industry-related impacts from other impacts and identify the extent to which industry-related impacts exacerbate or ameliorate other impacts. The CSIRO's principles for a 'social license to operate' measurement and modelling framework are incorporated in the design of the monitoring and evaluation program.

### **Recommendation 10**

Social programs and mitigation strategies are to be adaptive and able to be refined to accommodate the findings of monitoring and evaluation of programs and initiatives.

### **Recommendation 11**

Novel approaches, including those proposed by CSR (2017), to the distribution of benefits (relative to impacts) are investigated to ensure equity within and between communities.