



Australian Government
Department of the Environment and Energy
Bureau of Meteorology
Geoscience Australia



Geological and Bioregional Assessment Program Overview

Background

As part of the \$86.6 million “Towards a New Energy Future” package, the Australian Government has committed \$30.4 million to undertake the Geological and Bioregional Assessment Program. The Program will comprise a series of independent regulatory and community aligned scientific studies conducted by CSIRO and Geoscience Australia (GA), supported by the Bureau of Meteorology (BoM) and managed by the Department of the Environment and Energy (DoEE).

The objectives of the Program are to:

1. increase the understanding of the potential impacts on water and the environment posed by shale and tight gas development;
2. increase the efficiency of assessment and ongoing regulation of the industry through:
 - a. development of robust assessment material to meet the needs of the Commonwealth EPBC Act and State approval processes;
 - b. identification of effective monitoring and management practices to support regulation and management of the industry; and
 - c. improved reporting and data provision/management approaches.
3. improve community understanding of the industry;
4. encourage exploration to bring new shale and tight gas resources to the East Coast Gas Market, while ensuring the highest possible environmental standards, within the next five to ten years.

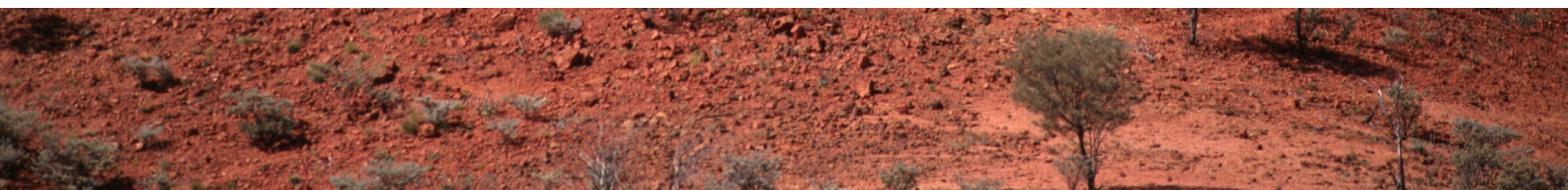
Scope of works

While the broad scope of works will be similar for each region, actual works undertaken will be shaped by user needs and regional geological and environmental characteristics. The program commenced in 2017 and will be completed in three stages, concluding in mid-2021, as follows:

Stage 1: The Rapid Regional Basin Prioritisation, delivered by Geoscience Australia, assisted in selection of regions to undertake assessments. Three regions have been chosen for detailed study in consultation with state governments and industry: the Cooper Basin (Queensland and South Australia); the Isa Superbasin (Queensland and Northern Territory); and the Beetaloo Sub-basin (Northern Territory).

Stage 2: Geological and Environmental Baseline Assessments will comprise a regional synthesis of available data, and identification of key matters and information gaps which require further analysis (Stage 3 works) in the three selected regions. The synthesis will include:

1. a geological basin assessment to define stratigraphic and structural characteristics that could influence prospectivity, gas extraction and potential environmental risks



2. environmental data synthesis encompassing: water quantity and quality; environmental assets directly related to regulatory and stakeholder concerns (MNES/MES); cultural assets; and socio-economic assets, such as high value agricultural land, groundwater wells and infrastructure requirements for the shale/tight gas industry.

These baseline assessments will include gap analysis to guide further data acquisition such as baseline water monitoring, or geological data acquisitions, if required.

Stage 3: Impact/ Information Gap/ Management Measures Analysis will consist of fit-for-purpose analysis of potential impacts to basin geology, water resources and other Commonwealth and State matters of environmental significance. This will enable effective management measures to be developed and implemented in future Commonwealth and state assessments, and ongoing compliance activities.

Governance

The proposed governance structure for the program is shown in Figure 1.

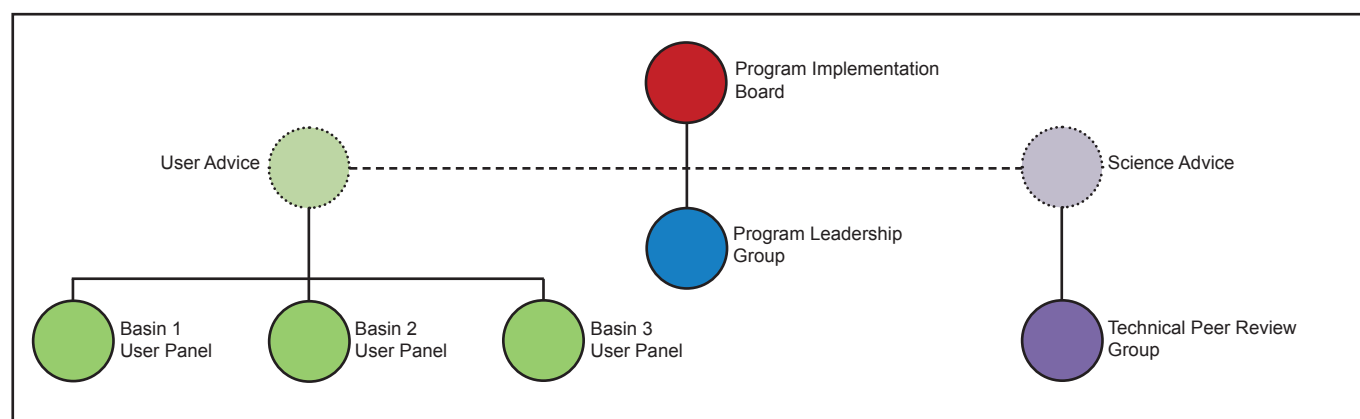


Figure 1 Governance structure for the Geological and Bioregional Assessments

A key innovation of the new program is the inclusion of User Advice Panels for each of the basins (regions) selected. These panels will be used to ensure that the program maintains an alignment with user needs. The panels include:

- Commonwealth Regulators
- State Regulators
- Industry representatives
- Traditional Custodians
- Other interested parties e.g. farmers, NRM groups, NGOs, water user groups etc.

Consultation and program design

Initial consultation commenced with key stakeholders in the Commonwealth and states, to coincide with the prioritisation process (see Stage 1: Rapid Regional Prioritisation). The design process for stages 2 and 3 will be shaped by user needs, as well as learnings from the previous Bioregional Assessment Program. Initial lessons learned suggest including: a greater focus on the risk-based approach and user needs upfront; less complex models developed to address specific concerns; greater focus on monitoring/management approaches; reports and tools tailored for each region and aligned with regulatory assessments requirements.

Ongoing consultation will be undertaken as part of the user panel process, combined with additional bilateral consultation with government officials, industry and key community groups, as required.