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Overview

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| Key points |
| * Mineral and energy resource exploration in Australia is a small part of the economy, equivalent to 0.5 per cent of GDP in 2011‑12. The sector’s significance is in discovering commercially valuable resources that sustain the operations of mineral and energy extraction industries — which represented 9 per cent of GDP in 2011‑12. * The number, size and quality of resource discoveries in Australia is declining, and the exploration sector is experiencing rising costs and lower productivity. * Government regulates resource exploration for three broad reasons: * the mineral and energy resources are owned by the Crown * exploration may impact on existing and future land uses such as agriculture, or damage sites of environmental and heritage significance * exploration may have effects beyond the area being explored, such as on the regional environment and community. * Many stakeholders are dissatisfied with the current regulatory arrangements: * some explorers claim that governments are discouraging exploration by increasing compliance costs, extending approval times and increasing regulatory uncertainty * some community groups claim that regulations are insufficient to protect environmental, heritage and community values and agricultural uses of the land, and that regulators are not being sufficiently diligent in protecting those values and land uses. * Regulatory processes that impose *unnecessary* burdens on resource explorers or inhibit exploration can be reformed by: * adopting tenement allocation and renewal procedures that ensure efficiently sized tenements * ensuring stronger and simpler coordination, transparency and accountability of exploration licence approval processes * making land access decisions that take into account the benefits to the wider community from exploration, and are appropriate to the level of risk posed by exploration as informed by sound evidence * addressing state and territory and Commonwealth environmental approvals processes that are duplicative and are not commensurate with the risk and significance of the environmental impacts of exploration * improving access to the existing knowledge of Indigenous heritage and accrediting state and territory government processes which meet Australian Government standards of Indigenous heritage protection. * Explorers highly regard the accessibility and provision of pre-competitive data by Australia’s geological survey organisations |
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# Overview

## About the inquiry

The Productivity Commission has been asked to examine the non-financial barriers to mineral and energy resource exploration in Australia. The inquiry is to examine the exploration approval systems and processes within and across jurisdictions, their effectiveness and efficiency, and the costs associated with the regulation of exploration activities. The inquiry is to consider options to improve the regulatory environment for exploration activities and assess the impact of all non-financial barriers on the international competitiveness and economic performance of the sector. The terms of reference exclude consideration of financial barriers to exploration and certain matters relating to environmental and native title legislation. The full terms of reference are set out on pages V-VII.

In assessing the non-financial barriers to mineral and energy exploration, the Commission has adopted a communitywide framework, as required by the *Productivity Commission Act 1998*. That is, the Commission will be assessing the effectiveness and efficiency of government interventions and the net benefits of these policies, programs and regulations to the wider community.

Exploration, for the purposes of this inquiry, is defined as those activities that relate to the gathering of knowledge on the location, quantity and quality of mineral and energy resources. A distinction has been drawn between mineral and energy resource exploration and the downstream activities of developing mines and drilling production wells (that is, mineral and energy resource extraction). However, all of these activities are interdependent (figure 1) and the distinction between them can be blurred.

Figure 1 **Key stages in mineral and energy resource exploration, and mining production/processing**

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| Figure 1 Key stages in mineral and energy resource exploration, and mining production/processing. This figure shows a flow chart of the key stages in resource exploration. It begins with the natural resource endowments, economic conditions and policy settings of Australia. It then moves to public geological surveys. The process then moves to the generative stage where areas are selected by private explorers for more detailed exploration. Then the primary exploration stage is undertaken, were exploration occurs and discoveries may be made. If a discovery is made, it is then evaluated to acertain if its is economically viable to extract the deposit. Assuiming that it is, the process moves through the development stage, the production stage and then the site rehabilitation stage, however, this stages are not considered to be part of the exploraiton process. |

## Background

Mineral and energy resource exploration represents a small share of the economy but successful exploration is an essential prerequisite for mineral and energy resource extraction. Exploration expenditure was just over $7 billion in 2011‑12, equivalent to about half of one per cent of GDP, whereas resource extraction accounts for 9.0 per cent of GDP. Employment in resource exploration accounts for 0.2 per cent of national employment.

Mineral and energy exploration is conducted by businesses which range from ‘senior explorers’ with established resource extraction operations, and billions of dollars in assets and multinational operations, to ‘junior explorers’ with millions of dollars of capitalisation. The largest share of expenditure is targeted at petroleum exploration, and it has been the main driver of the substantial increase in exploration expenditure since 2006 (figure 2).

Exploration can be broadly classified as greenfield or brownfield. Greenfield exploration is the exploration of unexplored or incompletely explored areas and is directed at discovering new resources. This exploration is a high‑risk, high‑reward venture with potentially large returns to those successfully discovering commercially viable resources. Brownfield exploration occurs in areas near established resources and is mainly focused on proving up areas for extending mining and energy drilling operations.

The level of greenfield exploration expenditure has remained relatively stable in real terms over recent years, but its share of total exploration has fallen over the last decade from 40 to 30 per cent. The growth of brownfield exploration has been driven in part by favourable commodity prices, which have provided an incentive for miners to expand existing mines.

The shift to brownfield exploration has raised concerns about the sustainability of Australian resource extraction in the medium term. While existing reserves may last many years, they may be of lower grade, in more remote locations, deeper in the ground, mixed with greater impurities and require more difficult and costly exploration and extraction techniques. As more ‘effort’ is needed to produce each unit of output, downward pressure will be placed on productivity, thereby reducing the international competitiveness of Australian resource exploration and extraction.

Figure 2 **Exploration expenditures have increased substantially**a

Quarterly real expenditures — 2011‑12 prices

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a Coal includes coal seam gas

### The performance of the industry

The performance of resource exploration in Australia has been deteriorating according to several measures:

* the average cost per metre drilled has doubled in real terms since the late 1990s (figure 3). Cost rises are attributed to the need to drill to greater depths and comply with an increased regulatory burden
* the rate of discovery of significant new resources has declined despite increased exploration expenditure (figure 4)
* Australia has the second highest share of global exploration expenditure, behind Canada, but this has declined from just under 20 per cent in the early 1990s to 9 per cent in 2011 (figure 5).

Figure 3 Cost-effectiveness of drilling expenditures

$ per metre drilled (2012 prices)

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Figure 4 The number of giant and major discoveries is falling as exploration expenditure has risena

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a Mineral discoveries and exploration expenditures (excluding iron ore, coal and petroleum).

Figure 5 Australia’s share of global non bulk mineral exploration

Excludes iron ore and uranium

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### Rationale for government intervention

There are three key reasons why mineral and energy resource exploration in Australia is regulated:

* the mineral and energy resources are owned by the Crown
* exploration could directly impact on existing and future agricultural and other economic land uses, or damage sites of environmental and heritage significance
* exploration may have effects beyond the tenement, for example, on the surrounding region’s environment and community.

#### Resources are owned by the Crown

Governments need to know the mineral and energy resource base in their jurisdictions in order to manage it in the community’s interest. Accordingly, governments have established legal frameworks which outline how competing exploration proposals are assessed (for example, tendered programs of works, and cash bidding), when and where exploration can occur, and on what basis (for example, reporting obligations).

#### Impacts on existing and future land uses

Much of the area covered by, or potentially available for, exploration licences has alternative economic uses. While some exploration activities are minimally invasive (most notably satellite or aerial analysis), more intensive exploration activities can impinge on the activities of other land holders. For example, drilling activities and associated machinery access routes can directly disturb and impair farming activities.

While all jurisdictions have procedures in place for resolving competing land use requirements, the frequency and intensity of conflicts has recently increased. This has predominantly arisen because of the impact of exploration on prime agricultural areas. Exploration in other areas, such as on low intensity grazing land, is considerably less contentious — and some landholders view it as a source of additional income. Exploration activities can similarly impact on items or areas of heritage significance (most notably Indigenous heritage) or have environmental impacts by disturbing or destroying flora or fauna of significance.

#### Effects beyond the exploration site

The effects of exploration activities have the potential to extend across areas that are beyond the specific exploration site (such as through noise, air and surface water contamination), and impact on the levels and quality of regional fresh water aquifers.

### Scope of government intervention

State and territory governments own all mineral and energy resources onshore and offshore within the first three nautical miles of the territorial sea. Beyond three nautical miles, the resources are owned by the Australian Government. The scope of intervention by governments in resource exploration extends to:

* the availability of, and access to, land
* exploration licence allocation and approvals processes
* environmental management
* heritage protection
* pre-competitive geoscientific information
* the availability of skilled labour and worker safety
* the taxation treatment of exploration activities
* subsidies/support for exploration activity.

One of the consequences of this broad scope of policy and regulatory interventions is a complex framework of legislation — generally separated into onshore and offshore legislation, and mineral and petroleum resource legislation. Most jurisdictions, therefore, have at least four key Acts and associated regulations. Further complexity arises from the interface between the Commonwealth and the states and territories and the differential treatment of specific mineral resources, such as uranium and coal, and more recently, the treatment of coal seam gas (CSG).

However, it is uncertain whether consolidation or harmonisation of state and territory resource legislation would be more efficient than the current arrangements. Most resource explorers are not exposed to the full force of this legislative complexity as they do not operate across multiple jurisdictions or explore for a combination of mineral and energy resources.

The design of regulation, the governance of regulatory agencies and non-regulatory policies all play important roles in shaping the structure of incentives faced by explorers. The Fraser Institute, a Canadian research group, surveys companies to measure the attractiveness of different jurisdictions for exploration. The Institute’s survey results suggest that the regulatory regimes of Australian jurisdictions that govern exploration activity are contributing to the decline in their international competitiveness as destinations for exploration.

### Concerns with the regulatory framework

Common concerns raised in this inquiry, across all regulatory domains, have been the lack of transparent and consultative processes undertaken when adding or changing regulation, the poor communication of some regulators and the scant use of evidence based decision making and proportionate risk management.

There can be strong opposition to mineral and energy resource exploration from some in the community, particularly those who are directly impacted and for whom the potential costs are concentrated. But policy processes have sometimes failed to assess the more widely dispersed benefits for the broader community. Mitigation of the concerns of the immediate community appears to be driving some of the recent legislative responses.

There will invariably be some parties who are disaffected by land use decisions. This places added emphasis on the need to ensure transparent and consultative regulatory frameworks. In the Commission’s view, those frameworks, and any changes to them, should be based on extensive community consultation informed by the best available environmental, social and economic understanding of the local and communitywide risks of impacts, and benefits, from specific exploration activities*.*

### Exploration licencing

Licensing and approval processes for resource exploration are primarily the responsibility of state and territory governments. The Australian Government has a role in relation to access to Commonwealth land, most offshore approvals and when the *Environment Protection and Biodiversity Conversation Act 1999* (EPBC Act) is triggered.

How governments allocate exploration licences and their strategies for land release play an important role in shaping exploration incentives.

#### The allocation of exploration licences

There are three main ways of allocating exploration licences in Australia — first-come first-served, work bidding and cash bidding.

Most exploration licence allocations are on a first-come first-served basis if there is likely to be only one party interested in exploring a tenement. Where multiple parties may be interested, governments often request bids of work programs — basing the allocation decision on the nature and extent of each explorer’s planned program of exploration. Under both of these arrangements, the rights are allocated free (apart from administration fees).

Work bidding can distort decisions on the nature and timing of exploration activities. Explorers will tend to adopt techniques, plan drilling activity or assign exploration expenditures to those activities that match the criteria used by governments to allocate a tenement, even though these choices may not be the most cost effective for the explorer. Where work bidding leads to exploration activity that is not cost effective, this creates an opportunity cost as at least some of the funds could have been used for other purposes.

The third approach, cash bidding has been used in the past for offshore energy exploration licences — with the Commonwealth and some states recently re‑introducing cash bidding, predominantly for the allocation of selected oil, coal and CSG exploration licences. Cash bidding enables governments to receive an upfront payment — effectively a share of any rents that may be created by the exploration activities.

Exploration firms are generally opposed to cash bidding, arguing that any funds expended on cash bidding are funds that cannot be used for exploration, thus lowering the chance of discovery and the generation of public information. Explorers further argue that despite the introduction of cash bidding arrangements, some governments still require the licence application to outline a work program.

The Commission considers that no single method of allocating exploration permits is likely to suit all situations in Australia. Cash bidding has greatest merit for highly prospective exploration tenements. These will usually be in areas where pre‑competitive geoscience and other evidence indicates that an exploration tenement will almost certainly contain sizable mineral or energy resources and there is likely to be greater interest from multiple bidders.

Regardless of the allocation mechanism employed, exploration licences are rights to the potential discovery of valuable resources. Administrative decisions on the allocation of those licences are therefore at risk from undue influence from vested interests. The use of transparent processes when allocating exploration licences is good regulatory practice and reduces the risk of corruption in the allocation of exploration licences.

#### Land release strategies

A challenge faced by governments is to develop an optimal tenement release strategy that maximises the benefits to the community while providing tenement options that are of interest to explorers. The small sizes and odd shapes of some tenements have become suboptimal — with any consequent resource discovery unlikely to be of a scale that supports efficient extraction. A contributing factor has been the requirement for parts of exploration tenements to be relinquished, especially where there have been repeated rounds of exploration.

The Commission considers that, where possible and appropriate, tenements should be of sufficient size to allow an efficient mine or production wells to be operated. This can be achieved by adopting a more strategic approach to the release of tenements by deferral until blocks can be combined into optimally sized and shaped tenements.

### Approval processes

Once land is made available for exploration and licences have been allocated, there is a lengthy process for explorers to acquire the necessary approvals to begin exploration. There is a great deal of variation between jurisdictions in the paths that need to be taken from applying for a licence to actually exploring. A high degree of variation also exists within jurisdictions, depending on the location of the exploration and the mineral or energy resources being sought.

This complexity makes it difficult to compare or even broadly describe exploration approval processes. Whereas figure 6 shows in a stylised way the key elements of the exploration licence approval process, the sheer number of paths through the systems means that definitive statements about seemingly obvious aspects, such as whether consultation is required, are not possible.

Figure 6 General process for exploration approvals in Australian jurisdictions

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| Figure 6 Exploration licensing and approvals. This figure shows the general process of applying for a licence to explore. |

a A work program must be submitted with the application, but may not be part of the decision-making process.

#### Main types of licences

There are three main licence types: exploration; retention; and production.

Exploration licences are time-limited (for example, generally five years for mineral resource exploration). After that time the licence will expire unless a renewal is granted. Grounds for renewal include a justifiable reason for lack of exploration activity, such as poor weather preventing access to land. In most cases a substantial proportion of the licence area must be ‘relinquished’ as part of the licence renewal. This enables explorers to focus on the most prospective areas and frees up the remaining areas for other companies to apply for exploration licences.

Explorers can apply for a retention licence to enable them to maintain an interest in land that is not yet commercially viable for resource extraction.

Production licences are, by convention, granted to holders of exploration or retention licences when commercially viable resources have been discovered — however, they are subject to more stringent conditions that reflect the greater impact of resource extraction. These issues are covered in the Commission’s concurrent benchmarking study of Australia’s major project development assessment processes.

#### Post-licence approval requirements

Following the granting of an exploration licence, explorers may be required to gain a number of regulatory approvals on a range of issues as set out in figure 6. The manner in which approval applications are assessed, and the way in which any conditions are administered, can affect the time which elapses between the issuing of the licence and the commencement of exploration. In this respect, regulatory delays (even of a few months) can mean that explorers may lose an entire exploration season, or lose the availability of costly equipment (such as drilling rigs or sonar equipped vessels). In many instances, the first year of a licence period can be exhausted by the need to gain the necessary regulatory approvals. This truncates the time left for actual exploration activity.

All jurisdictions have a ‘lead agency’ model for coordinating approvals for resource exploration. The various agencies have markedly different roles, ranging from a central point for the lodgement of required material, to proactively guiding the approvals through the entire process, or to having authority to assess and approve proposals on behalf of other agencies.

The Commission’s view is that, at a minimum, a lead agency should coordinate exploration proposals across the agencies responsible for regulatory assessments and approvals (such as environment and heritage agencies). It should provide guidance on the rationale for the approvals process and how to navigate that process, track the status of applications and monitor and publish reports on how timely the regulatory agencies are in discharging their responsibilities.

If the time taken for holders of exploration licences to gain approval to commence exploration cannot be reduced, various solutions have been proposed. These include: extending the licence period by one year; extending the licence by a period of time that reflects the average increase in the time taken for regulatory compliance; or starting the licence period after all approvals have been granted and exploration can commence.

Each of these options raise implementation issues. A one year increase is unlikely to be appropriate for all exploration types and all jurisdictions; calculating the average delay is fraught with methodological issues; and fixing the licence duration from the time approvals and agreements are in place could allow proponents to delay their responses to approving authorities, thus facilitating ‘land banking’ and deferral of community benefit from the discovery of potential resources.

#### Regulatory processes

The regulatory framework aims to balance the competing demands of exploring for resources, using the land for other purposes such as agriculture, and the preservation of heritage and environmental values. This can create a wide and diverse stakeholder interest in the exploration approvals process. A transparent regulatory system is needed to demonstrate to all stakeholders that their interests are being considered in a fair and objective manner. The following three processes raise issues of concern.

##### Ministerial discretion

State and territory mineral and energy resource legislation provides ministers with significant discretion over decisions that restrict, facilitate or transfer ownership of exploration activities. For example, coal is not treated differently from other mineral or energy resources in New South Wales legislation but, by using legislative powers, the Minister declared a ‘mineral allocation area’ for coal over the whole of the state. This had the effect of triggering a tender process for all coal exploration applications.

Some ministerial decision making powers require reasons to be given. Transparency could be improved if this requirement was applied more broadly. Legislation should also specify what reasons are to be relied on in the event of an appeal, if the minister failed to make a decision (such as the reasons set out by the recommending authority in their ministerial brief).

##### Consultation

Various stakeholders, as noted above, are affected by decisions to allow or prevent exploration. Some jurisdictions allow stakeholders an opportunity to respond to proposals, but even among these jurisdictions, consultation takes different forms. For example, there are differences in who can comment and how those comments are taken into account. The Commission notes that both proponents and opponents of exploration in New South Wales have called attention to a lack of transparency with assessment processes and decisions taken regarding mineral allocation areas. This suggests that consultation practices, at least in some jurisdictions, require improvements.

##### Appeals

Some states have specific appeal processes relating to exploration that are established in legislation, while others rely on generic tribunals or courts. There are also different levels of review available, from a review of the merits of a decision to the restriction of judicial appeal to questions of law or procedural fairness. Appeal processes ensure that redress is available if regulatory powers are not exercised in accordance with the law; thus they promote confidence and transparency in the regulatory system.

Appeal processes can be, on occasion, ‘gamed’ to delay exploration projects and, thereby, cause explorers to give up, down-scale or lose investor support. Courts have various powers to deal with this, such as dismissing vexatious litigation or awarding costs against unsuccessful litigants. Formal review can be slow and costly for all parties, therefore the use of mediation and other alternative dispute resolution mechanisms is encouraged to promote access to justice and prevent projects being unnecessarily blocked.

#### Regulators

A leading practice adopted by some jurisdictions is to set administrative targets for their agencies and publish their performance against those targets. An example is the Western Australian Department of Mines and Petroleum, which publishes performance reports that include the number of applications processed and the percentage that meet target timeframes.

Another practice that promotes regulatory transparency and administrative efficiency is the use of online lodgement and tracking of applications. This facilitates the monitoring and reporting of the average time taken for approvals and can assist regulatory agencies to identify any areas of administrative weakness. Currently only Western Australia and Queensland have implemented such systems for the approval of applications. The Commission recommends the adoption of these leading practices by other jurisdictions.

### Land access

The underlying objective of governments when regulating land access is to balance the property rights of both the land owners and explorers and to address externalities, including any communitywide costs and benefits, arising from exploration activities. The regulatory instruments used include placing land off‑limits to exploration or putting conditions on land access. In the main, state and territory governments are responsible for regulating most onshore and coastal land access, while the Commonwealth regulates access to Commonwealth owned land and to offshore areas.

#### Crown land

A rising proportion of Crown land has been declared as reserves and parks. Some jurisdictions proclaim parks without first assessing the value of the underlying resources. Knowledge of the potential value of mineral and energy resources under reserves and parks can inform the community of one of the opportunity costs of decisions to establish them.

While exploration activities can produce environmental damage, or damage to areas of heritage significance, the extent of damage will vary greatly depending on the nature of exploration activity and the fragility of the areas being explored. In certain instances, it may be necessary to prohibit invasive exploration to protect the environmental and heritage values of an area. In other circumstances, many exploration activities, particularly in the early stages when they may only involve aerial mapping or soil sampling, are able to be carried out with little or no disturbance to the land.

In the Commission’s view, government decisions to declare a new national park or conservation area should draw on the guiding principles of the Multiple Land Use Framework endorsed by the Standing Council on Energy and Resources, including to analyse the costs and benefits of other forms of land uses.

#### Private freehold land

There can be a need to resolve competing land use requirements when the holder of the mineral and energy resource property rights impacts on the property rights of a land owner (the holder of the surface rights) or land lessee (the user of the land). Such conflicts are more likely to arise in high value agricultural areas, but can occur in or around urban or other high intensity land use areas.

In general, across jurisdictions, negotiations are conducted between the parties on the conditions of access and the compensation payable to the land owner and/or lessee. The requirement to provide compensation for any damage or loss of earnings gives the explorer a financial incentive to minimise the impact of their activities.

Although this is a business-to-business transaction, most rural land owners can be at some disadvantage due to their limited experience in undertaking such negotiations compared to the explorers, who may have negotiated hundreds of such agreements. There is both an asymmetry of information regarding the potential impact of the exploration activity, and an imbalance of power, as in most cases, rural land owners are required to allow explorers to access their land.

Some state and territory legislation explicitly provides for the legal costs incurred by land owners in negotiating an agreement to be compensable and paid by the explorer. In other jurisdictions, such costs are not explicitly ‘ruled out’. All jurisdictions should ensure that land owners are explicitly aware that such support is available and is compensable by explorers.

The regulatory frameworks governing CSG exploration in particular have been changing quickly. These changes stem from the pressures generated from the rapid expansion of the industry, uncertainty as to the impacts of CSG activities and concerns and opposition from some landholders and others in the community. Faced with these pressures, governments have searched for appropriate regulatory responses.

Further changes, to improve the regulation of CSG, should be based on the best available evidence of the impacts and be appropriate to the level of risk. Regulation of CSG exploration activities should be directed towards maximising the economic, social and environmental benefit of the use of the land for the whole community.

Changes to regulations, however, are not the only way that management of land access issues can be improved. While explorers have an incentive to build good relations with land owners and the wider community, the practices of some resource explorers (and some subcontract drilling operators and others) have tainted the reputation of the industry. Many explorers are now working to restore and build community support by exceeding the minimum legislative requirements and by engaging and supporting local communities. This is often referred to as earning a ‘social licence’ to explore.

### Heritage protection

All state and territory governments and the Australian Government have legislation to protect, preserve or mitigate damage to heritage sites. While all forms of heritage — historical, natural and Indigenous — can be impacted by exploration activities, policy challenges are most pronounced in relation to Indigenous heritage.

#### Indigenous heritage

All states and territories protect Indigenous heritage sites and objects which meet specified standards of ‘significance’. However, there is substantial variation in what those standards are, and accordingly in what heritage is protected, how it is protected and who decides whether an activity can go ahead when harm to an Indigenous heritage site cannot be avoided if an exploration activity were to be approved.

##### The relative merits of duty of care, permit systems and cultural heritage agreements

There are various actions an explorer must take to manage a heritage site, depending on the nature of the activity and the legislation of the jurisdiction. Some jurisdictions provide exemptions for activities that are considered to have a low impact. In most instances, Indigenous heritage is managed during exploration through duty of care processes, permit systems and agreements embodying cultural management plans.

Several leading practices in managing the potential heritage impacts arising from exploration can be identified from these varying approaches. The heritage management approach (choice of duty of care, permit systems or agreements) is most cost-effective when it is appropriate to the activity’s level of risk and the likely heritage significance of a site. Where there is a low likelihood of heritage significance and the exploration activity is low risk, a streamlined process and ‘duty of care’ will prevent unnecessary regulatory burden for explorers. Conversely,in areas where Indigenous heritage is highly significant, expediency in heritage approvals is not the primary aim. Rather, the objective is to appropriately balance the protection of Indigenous heritage with the benefits of exploration activity.

Heritage management agreements place the onus on resource explorers and traditional owners, rather than a government agency, to decide how to best protect heritage from being damaged or destroyed. Management agreements have the potential to produce better outcomes for heritage protection than permit systems in those cases where heritage values are significant. However, in most jurisdictions, explorers can apply for a permit or certificate (from a minister or other body) to proceed with exploration even when it is likely to harm Indigenous heritage. Decisions to permit exploration should be based on consultation with all parties that have a relevant interest and expertise, and a weighing up of the relative costs and benefits.

##### Cost and delay in preparing cultural heritage surveys and the development of heritage registers

The cost and time involved in undertaking cultural heritage surveys are frequently raised by explorers. Some potential sources of delay and unnecessary burden include overlap between Commonwealth and state and territory Indigenous heritage legislation and a lack of binding approval times.

Many participants consider that the requirement to undertake heritage surveys in some jurisdictions has created an industry for archaeologists, anthropologists and lawyers. A related concern is that inconsistent and inadequate listing of heritage sites can lead to the re-examination of the same site by successive explorers. Generally, information from previous surveys cannot be accessed because of Indigenous privacy concerns and copyright restrictions on the survey report. Improved access to existing information would reduce the time taken for heritage decisions and avoid the unnecessary cost of re-surveying of the same site.

The Commission supports the development and updating of Indigenous heritage registers to enable resource explorers to gain access to information about the location and nature of Indigenous heritage sites. A requirement that resource explorers or other parties lodge all heritage surveys with the relevant heritage authority should be adopted in all jurisdictions. A risk management approach should be adopted to ensure that sensitive information, collected as part of the survey, is protected.

#### ‘Unnecessary’ overlap in Commonwealth and state/territory heritage legislation

Overlap between the Commonwealth *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (ATSIHP Act) and state and territory Indigenous heritage legislation may result in duplication of processes and delays for explorers. The ATSIHP Act allows the responsible Commonwealth Minister to make a declaration to preserve or protect an area from injury or desecration if the Minister is satisfied that ‘the area is a significant Aboriginal area’ and there is a ‘serious and immediate threat’. The Act allows for intervention if state and territory laws do not provide effective protection.

The ATSIHP Act was introduced as a temporary measure to encourage the states to protect sacred sites as part of a plan to introduce national land rights legislation. When the plan failed, the Act was made permanent, largely in its original form. It was not repealed or amended following the recognition of native title in Australian law.

There are several concerns, including that the ATSIHP Act:

* is considered ineffective and costly to administer
* is seen by some as being redundant, on the basis that all jurisdictions now have legislation protecting Indigenous heritage. Others, however, question whether some state legislation effectively protects Indigenous heritage
* could result in ‘jurisdiction shopping’, causing delays and duplication for explorers.

The Commission proposes that, until concerns with state and territory legislation have been fully addressed, the ATSIHP Act should be retained and amended to allow states and territories to be accredited if Commonwealth standards are met. Once all jurisdictional regimes are operating satisfactorily, the ATSIHP Act should be repealed. State and territory legislation would then be the sole source of regulation of heritage mattersin their respective jurisdictions.

### Environmental management

The environmental impacts of exploration range from those that are minor and temporary to those that are potentially large and longer-term. The policy challenge for governments is to achieve an appropriate balance between the benefits afforded by mineral and energy resource exploration and the potential for any associated environmental costs.

State and territory governments are the main authorities responsible for environmental management. The Australian Government has authority over exploration in Commonwealth waters and defined matters of national environmental significance. Some key themes have been identified that unnecessarily delay approvals processes or increase compliance costs, over and above those which are necessary to meet the underlying environmental objectives.

#### Streamlining state/territory and Commonwealth regulatory arrangements

Considerable duplication exists within and between the Commonwealth and state and territory governments’ environmental regulatory frameworks.

Within the Commonwealth regulatory framework, the main duplication occurs in the regulation of offshore environmental matters between the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) and the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC). The Commission is proposing that the Australian Government should accredit NOPSEMA to undertake environmental assessments and approvals under the EPBC Act for petroleum activities in Commonwealth waters. NOPSEMA currently undertakes assessments and approvals of environment plans associated with all petroleum activities in Commonwealth waters. Accordingly, it has the capacity and expertise to undertake such assessments and approvals under the EPBC Act.

The EPBC Act allows for agreements between the Australian and state and territory governments that would reduce the duplication of Commonwealth and state and territory environmental regulatory processes. In 2012, COAG agreed to expedite the accreditation of state and territory environmental approval processes for matters of national environmental significance under the Act. Progress towards achieving this reform has halted. The reform should be properly scoped to identify the necessary steps, reviewed by jurisdictions and a timetable for implementation set.

The regulatory powers exercised by state and territory governments in their territorial waters seaward from the low tide mark do not represent a streamlined approach to managing offshore petroleum exploration. State and territory governments should reconsider conferring their offshore petroleum exploration related regulatory powers to NOPSEMA.

#### Regulatory requirements that are not commensurate with the likely level of impact and are not performance based

Most environmental impact assessment processes comprise levels of assessment that are of increasing rigour according to the environmental significance of the proposed exploration activity. However, participants in this inquiry reported numerous instances where regulatory requirements are not commensurate with the likely environmental impacts. Such regulatory measures increase the compliance burden on explorers without improving environmental outcomes. Regulatory requirements should be commensurate with the risk and significance of the environmental impacts of the proposed exploration activity and, where possible, the requirements should be performance based outcome measures in order to efficiently manage these risks.

#### Use of the internet to improve transparency of requirements and access to publicly available information

An area of improved administrative efficiency in recent years has been the use of the internet to publicise regulatory requirements. As noted above, Western Australia’s Department of Mines and Petroleum has implemented an online Environmental Assessment Regulatory System that allows the lodgment, submission and tracking of applications on-line –– the system is accompanied by guidelines to assist applicants.

There is room for other jurisdictions to improve transparency and administrative efficiency, particularly regarding how regulatory requirements are interpreted and enforced by agencies. Such changes would enhance understanding of regulatory requirements and may improve the quality of applications. In turn, this could facilitate a more efficient and timely flow of applications through the assessment process.

Compliance costs for explorers can also be reduced and potentially duplicative environmental surveys avoided or mitigated by placing on the internet publicly available environmental plans and environmental impact statements.

#### Subjective decision making, especially when environmental impacts are uncertain

Where there is scientific uncertainty about the impacts of exploration, there tends to be greater risk of policy change being driven by subjective judgements. For example, environmental policies for CSG have been in a state of flux. In some cases, policy responses have been influenced by the uncertainty surrounding the possible environmental impacts of CSG exploration.

Scientific uncertainty should not lead to poor regulatory processes or decisions. A precautionary approach should be adopted where there is concern of substantial or permanent damage. A lack of certainty should not be used to justify a lack of action to mitigate or prevent such damage. Nor does scientific uncertainty reduce the need to identify the benefits and costs of exploration activities. Rather the presence of scientific uncertainty is one factor that should be considered when deciding whether resource exploration can be reasonably expected to increase the community’s wellbeing. Decision makers should weigh up the risks and impacts (both positive and negative) of an exploration proposal. This process can evolve and be revisited as scientific uncertainty is reduced.

## Non-regulatory issues

A number of non-regulatory issues that are within the Commission’s terms of reference impact on exploration. One of the more important is the provision of pre‑competitive geoscience information. Other issues which are considered in the body of the report, but not canvassed in the overview, include the supply of skilled labour, and workplace relations.

### Pre-competitive geoscience

Pre-competitive geoscience information includes data on the physical properties of the earth, obtained through survey techniques, mapping, data compilation and interpretation of geophysical data. The collection of pre-competitive geoscience information by Australia’s geological survey organisations enables explorers to better target potential mineral and energy resources.

The case for public funding of pre-competitive geoscience information is widely accepted on the grounds of its partial public good characteristics — that is, the use of the information does not reduce its availability to others (it is non-rivalrous). The information can also enhance the management of a public resource, that is, the Crown’s ownership of mineral and energy resources. Pre-competitive geoscience information, however, is excludable — meaning there is scope for governments to fund the collection of pre‑competitive data and then charge users for that information. Indeed, this is currently the practice in New South Wales. The outcomes of this cost recovery approach in New South Wales should be monitored by all governments and assessed for broader applicability.

Australia’s geological survey organisations and databases are highly regarded. The quality of, and accessibility to, pre-competitive data is a source of attractiveness for investment, both domestic and foreign, in exploration. However, the coverage and timeliness of the data could be improved through better disclosure of resource reserves by non-ASX companies. A working group within the Department of Resources, Energy and Tourism is currently examining this matter and considering options to improve disclosure and will deliver its report shortly after the release of this draft. The Commission proposes to finalise its view after the release of the working group’s report.

Funding for the range of activities undertaken by some of Australia’s geological survey organisations has historically been provided through short-term, fixed duration and outcome-specific program funding. This approach has a number of drawbacks compared to ongoing appropriation funding — lesser certainty and flexibility, and poorer longer-term planning capability. The Commission is giving consideration to whether it should recommend a more stable and certain funding base.