australian network of environmental defender's offices

Australian Network of Environmental Defender's Offices Inc

Submission to Productivity Commission Issues Paper and Inquiry on *Mineral and Energy Resource Exploration*

19 March 2013

The Australian Network of Environmental Defender's Offices (**ANEDO**) consists of nine independently constituted and managed community environmental law centres located in each State and Territory of Australia.

Each EDO is dedicated to protecting the environment in the public interest. EDOs provide legal representation and advice, take an active role in environmental law reform and policy formulation, and offer a significant education program designed to facilitate public participation in environmental decision making.

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Introduction

The Australian Network of Environmental Defenders Offices (**ANEDO**) welcomes the opportunity to assist the Productivity Commission to evaluate Australia's mineral and resource exploration laws. Our lawyers have extensive experience working with and analysing mining laws – providing legal advice and representation, policy and law reform and community outreach across all Australian states and territories. Much of our offices' mining law work has arisen from increased public concern about the impacts of mining on environmental, social and other economic values.

The regulation of mining exploration is important because it is the beginning of the mining development process. Although many exploration projects do not progress to full-scale production (due in most cases to the unavailability or uncommerciality of the mineral resource), exploration projects which do discover a commercially viable resource generally become mines. It is therefore important that the regulatory controls imposed on exploration activities are adequate.[1]

Are mining and development industries 'over-regulated'?

As a preliminary comment, ANEDO is concerned that several recent inquiry referrals to the Productivity Commission seem geared towards 'streamlining' rather than leading practice environmental regulation. In this inquiry, the Commission has been asked to examine the non-financial barriers or burdens in relation to mineral and resource exploration in Australia.[2] ANEDO is also making a separate submission to the Commission's inquiry into major project development assessment and approval.[3] The terms of reference received for these inquiries appear to be based on certain assumptions: first, that the development and resources industries are over-regulated, and second, that the solution to regulatory problems is to 'streamline' (reduce) environmental regulation. While we support the need to improve regulatory clarity and effectiveness, ANEDO's experience with mining and environmental law contradicts both of the above assumptions.

Is mining and development regulation 'too lax'?

ANEDO's concerns about the current environmental 'streamlining' agenda are reinforced by recent public attitude research from the NSW Office of Environment and Heritage:[4]

- *almost half the community believes we do not place enough emphasis on the protection of natural habitats in competition with other land use needs*
- *almost half believe environmental regulation of two sectors, mining and property development/construction, is too lax, despite an increasingly positive view of environmental regulation of other sectors over successive surveys.*

By far the most common response regarding 'mining' and 'property development/ construction' was that regulation is 'too lax' (49% and 46% of respondents, respectively). Only 10% of respondents thought mining regulation was 'too strict'.[5] For almost all other sectors mentioned, the most prevalent response was that regulatory strictness is 'about right' (fishing, farming, individuals, tourism, retail and forestry). It is striking that the two sectors that the community perceives as being under-regulated (at least in NSW) are the same sectors that COAG's Business Advisory forum is seeking to 'streamline'.[6]

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[1] See EDO Vic, *Reforming mining law in Victoria* (April 2012), at www.edovic.org.au.
[2] See http://www.pc.gov.au/projects/inquiry/resource-exploration. This submission considers the Productivity Commission's *Mineral and Energy Resource Exploration Issues Paper* (Dec. 2012) (**Issues Paper**).
[3] See http://www.pc.gov.au/projects/study/major-projects. ANEDO submissions available at www.edo.org.au.
[4] NSW Office of Environment & Heritage, *Who Cares about the Environment in 2012?* (2013), 'At a glance'.
[5] 24% said mining regulation strictness was 'about right'; 17% were 'not sure' (OEH 2013, full report, 41-42).
[6] See BAF communique 12/4/2012: http://www.finance.gov.au/deregulation/communique-12--april-12.html.

Some specific community concerns about mining regulation

ANEDO offices frequently conduct legal education workshops at the request of local communities across Australia. These workshops aim to help people understand the law and their rights, and to facilitate public participation in environmental decision making. In recent years, calls for information on mining laws have increasingly dominated these requests.[7] Key concerns that community members have raised at our workshops include:

- Lack of **notification or consultation** about exploration licences (particularly coal/CSG);
- Difficulty **obtaining information** about exploration licences;
- Concerns about **environmental, social and economic impacts** associated with exploration and production, especially on water, health and property values;
- Confusion and concern about **environmental assessment and development approval** processes, and landholders' (often limited) ability to influence them;
- Concern about negotiating **'access arrangements'**, and the ability to **protect properties from damage** caused by mining activities.

As a 2012 report from EDO Vic explains:

> *The communities we work with feel disenfranchised by the mining law regime. People who are affected by exploration and mining are often not informed about proposals that may affect them, and are routinely denied a real say in whether and how exploration or mining projects go ahead.*[8]

A 'triple bottom line' perspective on regulatory costs and effectiveness

ANEDO submits that governments' views of productivity improvements and environmental regulation should be redirected towards a 'triple bottom line' consideration of effectiveness. Such a view would consider the long-term economic, social and environmental costs and benefits of regulating mineral exploration and extraction, rather than focusing largely on the economic costs and burdens. A more balanced perspective aligns with the Productivity Commission's legislative mandate to consider the need 'to ensure that industry develops in a way that is ecologically sustainable'.[9] It also reflects the Australian Treasury Secretary's recent conception of 'sustainable wellbeing' as a benchmark for guiding Australia's economic future. To maintain sustainable wellbeing, Dr Parkinson has emphasised the need to balance environmental and social capital, in addition to traditional notions of physical, financial and human capital.[10]

Agreement on the need for regulatory reform

ANEDO agrees that Australia's regulatory systems for mining and planning are in need of reform. However, we diverge from some other stakeholders on the causes of and solutions to this problem. Current regulatory approaches to mining exploration and production are a complex, evolving network of intersecting laws and policies. They lack clear oversight or direction to achieve ecologically sustainable outcomes, and adequate tools to fully assess impacts from a triple bottom line perspective.

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[7] For example, in 2011 and 2012, public legal enquiries to EDO NSW about mining issues approximately quadrupled from previous years. In 2011 and 2012, EDO NSW conducted 24 community legal education workshops and seminars on mining and CSG law at the request of rural and regional communities. EDO NSW has also released a comprehensive booklet, *Mining Law in NSW: A guide for the community* (December 2012), available at: http://www.edo.org.au/edonsw/site/publications.php#mining.

[8] EDO Vic, *Reforming mining law in Victoria* (April 2012), p 4, available at www.edovic.org.au.

[9] *Productivity Commission Act 1998* (Cth), subsection 10(1)(i).

[10] Dr Martin Parkinson, '*Sustainable Wellbeing- An Economic Future for Australia'*, Address for the Shann Memorial Lecture Series (August 2011), available at www.treasury.gov.au.

ANEDO submits that Australia should aim for regulatory systems that:

- place ecologically sustainable development (**ESD**) at the apex of objects, planning and decision making;
- are comprehensive, but not unnecessarily complicated or inconsistent;
- fully account for all economic, social and environmental impacts of mining activities (positive and negative) at the site, region, state/territory/national level;
- require science-based and evidence-driven decisions;
- respect and engage communities in land use and project decision-making; and
- integrate with natural resource management (**NRM**) laws, principles and targets (such as threatened species, native vegetation, pollution and heritage protection).

Importantly, any reforms to reduce 'barriers' to mineral and resource exploration must not be at the expense of robust environmental assessment, public participation, transparent and objective decision making, or judicial and other independent oversight. These regulatory safeguards (including third party appeal rights, however rarely exercised[11]) are essential to improving decision making; achieving the goal of ESD; and securing Australia's other long-term social, environmental and economic objectives. This view reflects the Productivity Commission's legislative and policy guidelines,[12] Australia's international commitments,[13] and agreement to implement ESD principles domestically.[14]

Five broad themes to improve the effectiveness of mining regulation

To address our concerns about inadequate CSG and mining regulation, ANEDO has recently made a submission to COAG/SCER with recommendations in five broad areas:

1. ***Mechanisms to ensure development is ecologically sustainable, and subject to objective decision-making criteria***
2. ***Thorough and independent assessment of all environmental impacts***
3. ***Better community engagement in land-use decision making***
4. ***Long-term strategic planning that achieves triple bottom line outcomes***
5. ***Increased monitoring and enforcement, and regular reporting and review.***

The executive summary of that recent submission, on a *Draft National Harmonised Regulatory Framework for Coal Seam Gas*, is at **Attachment A**. The Commission is also welcome to refer to the full submission on our website.[15]

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[11] For example, 'Expanding the scope of third party merit appeals' is one of six key recommendations in ICAC's report, *Anti-corruption safeguards in the NSW planning system* (2012), at www.icac.nsw.gov.au. See also N. Hammond-Deakin and E. Johnson, 'Merits appeal rights in NSW: Improving environmental outcomes' (2012) 92 *IMPACT!* Journal 6, available at www.edonsw.org.au.

[12] The Operating Principles and Policy Guidelines of the Productivity Commission include to 'ensure that Australian industry develops in ecologically sustainable ways': http://www.pc.gov.au/about-us/principles. The Issues Paper also notes the Commission is to consider the net benefits to the wider community (p 3).

[13] In 1992, Australia endorsed the *Rio Declaration on Environment and Development*, a worldwide commitment on 27 principles to guide future ecologically sustainable development. Australia also has substantive commitments under instruments such as the Convention on Biological Diversity, World Heritage Convention, the Framework Convention on Climate Change, the Ramsar Convention on International Wetlands, and the Declaration on the Rights of Indigenous Peoples.

[14] To implement commitments in the Rio Declaration, and the accompanying 'Agenda 21', Australian governments negotiated the *National Strategy on Ecologically Sustainable Development* (1992) (see www.environment.gov.au/about/esd/index.html). As ANEDO's submission on national harmonisation of CSG regulation notes (see below and **Attachment A**), many environmental, planning and environmental laws in Australia refer to ESD principles, but the practical implications of this are often very limited.

[15] See ANEDO website at http://edo.org.au/policy/130228%20CSG%20draft%20national%20framework%20-%20ANEDO%20submission.docx.

Specific matters raised in the Commission's Issues Paper

The Productivity Commission's Issues Paper has identified a range of potential concerns over the impact of current regulatory arrangements on mining exploration and Australia's competitive advantage. We make brief comments on a number of these issues below.

'Compliance costs' (from environmental assessment and approvals)

The Issues Paper states that unnecessary costs may be significant where applications are required 'for assessment and approval for a range of land access, environmental and heritage requirements'.[16] We submit that the inquiry, as well as government and industry, must acknowledge the need for assessment and approval as a necessity of doing business safely and responsibly. It should also be acknowledged that exploration is generally subject to less intensive assessment and approval processes than production, although this too needs careful evaluation (see below). While we agree that assessment and approval processes should be proportionate and not unnecessarily burdensome, there is a clear need to ensure these processes are based on sound evidence; and objective, transparent decision-making processes that promote community confidence.

In ANEDO's experience, existing assessment and approval of mining projects do not fulfil these needs. As our recent CSG framework submission explains,[17] current problems include:

i) Lack of independent assessment approaches, or comprehensive baseline data;
ii) Poor cumulative impact assessment;
iii) No formal linkage to state-wide/catchment NRM targets, limits and requirements;
iv) Inadequate consideration of greenhouse gas and climate change impacts;
v) Limited government oversight and quality assurance of EIA, and the potential for conflicts of duties.[18]

'Overlap and duplication'

While some stakeholders have raised perceptions of regulatory overlap and duplication, ANEDO believes the case for shared responsibility and oversight between Commonwealth and State governments is strong. As the first headline of the *State of the Environment Report 2011* (Cth) notes, 'Our environment is a national issue requiring leadership and action at all levels.' ANEDO has elsewhere outlined a range of reasons why federal project approval powers should not be delegated to state authorities.[19] At the same time, there is room to improve federal-state coordination, environmental protection and regulatory effectiveness via the recommendations of the 2009 *Independent Review of the EPBC Act*,[20] provided they are implemented as a package. It should also be noted that the EPBC Act limits federal involvement to activities with a 'significant impact' on listed 'matters of national environmental significance'. Referral and federal assessment of mining exploration would therefore be less frequent than for production activities.

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[16] Productivity Commission, Issues Paper (2012), 18.
[17] ANEDO Submission on a *Draft National Harmonised Regulatory Framework for Coal Seam Gas* (2013), Part 2, available at www.edo.org.au.
[18] Conflicts of duties refers to instances where one agency 'promotes' the mining and resource industry, as well as licensing, regulating and enforcing breaches by the industry. See NSW Ombudsman, Submission to NSW Legislative Council Inquiry into CSG (2011); and *Report of the NSW Legislative Council Inquiry into CSG* (May 2012) recommendations 31-35.
[19] See ANEDO, *COAG Environmental Reform Agenda – ANEDO Response: In defence of Environmental Laws* (May 2012), available at: www.edovic.org.au.
[20] Hawke et al, *Report of the Independent Review of the Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (October 2009), available at www.environment.gov.au.

‘Access to land’

The Issues Paper identifies land access as a key issue in current regulatory approaches to mineral and energy exploration. The Commission asks ‘Has there been an adequate examination of the costs and benefits of excluding exploration activities from particular land?’[21] The Issues Paper also asks about the clarity of land use decision-making processes. These decisions would ideally occur at the strategic planning stage. Such processes vary across Australia, but are generally poor at integrating objective criteria, cumulative impacts of multiple projects, and NRM targets.[22] As EDO Vic notes:

> *The conflict between mining and other land uses (like agriculture or conservation) is not managed in a strategic way. The planning system does very little to protect competing land uses from mining, and is inherently restricted by its reactive and piecemeal nature.*[23]

Recent experience also suggests that, as exploration and extraction of resources such as coal and CSG expand, governments have been reluctant to respond to community and local government calls to identify and fully protect areas and land uses that are incompatible with, or significantly affected by mining. This includes in the NSW Strategic Land Use Policy, Queensland’s Strategic Cropping Land Policy, and the lesser-known draft ‘Multiple Land Use Framework’ (which underpinned the SCER’s recent draft CSG framework).[24] In ANEDO’s view, environmental benefits and ecological services are overlooked or undervalued in such policies and processes.[25] This includes private conservation lands (such as Bimblebox Nature Reserve, QLD), biodiversity offset lands intended to be protected ‘in perpetuity’ (Bulga, NSW[26]) and state forests (Pilliga, NSW).[27]

ANEDO’s national CSG framework submission examines land access in detail (Part 3, ‘Better community engagement in land use decision-making’). We note the central importance of public participation, including for a ‘social licence to operate’; and the need to fully consider competing and complementary land uses, including ecological services and benefits, in line with the carrying capacity of the regional landscape.[28]

While current land use planning is a long way from a landscape-centred approach, there has been recent federal recognition of the need to increase protection of water resources from large coal mines and CSG. Following a series of private members’ bills, in March 2013 the federal Government introduced a bill to add a ‘water trigger’ to the EPBC Act which would allow federal assessment and approval of certain mining projects that will have (or are likely to have) a significant impact on water resources.[29]

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[21] Productivity Commission, Issues Paper (2012), 20.
[22] See ANEDO submission to SCER on the Draft CSG Framework (Feb. 2013), Part 4; and forthcoming submission to Productivity Commission on major project assessment and approval processes (March 2013).
[23] EDO Vic, *Reforming mining law in Victoria* (April 2012), p 4, available at www.edovic.org.au.
[24] See for example Goldberg Blaise, *Analysis of Feedback: Draft Strategic Regional Land Use Plans* (June 2012), report for NSW Planning, p 12: ‘There is a strong view from community, agricultural and environment groups that the SRLUPs should clearly identify “no go” zones in which mining and coal seam gas development is not allowed.’ For analysis of the ‘SCLP’, see www.edo.org.au/edoqld. On the draft ‘MLUF’ see COAG Standing Council on Energy & Resources, www.scer.gov.au/workstreams/land-access/mluf/.
[25] By contrast, see the ‘stepwise approach’ to valuing environmental benefits under UNEP’s *The Economics of Ecosystems and Biodiversity* program, at http://www.teebweb.org/publications/teeb-study-reports/local-and-regional/.
[26] See EDO NSW, *Bulga Milbrodale Progress Association Inc v Minister for Planning & Ors* case, http://www.edo.org.au/edonsw/site/casework_key.php#bulga.
[27] See Pilliga case study at **Attachment B**.
[28] See also John Williams Scientific Services Pty Ltd, *An analysis of coal seam gas production and natural resource management in Australia - Issues and ways forward* (October 2012), pp 102-103, rec’s 1-2.
[29] Environment Protection and Biodiversity Conservation Amendment Bill 2013; see also previous Environment Protection and Biodiversity Conservation Amendment (Mining, Petroleum and Water Resources) Bill 2011; Environment Protection and Biodiversity Conservation Amendment (Protecting Australia’s Water Resources) Bill 2011; Environment Protection and Biodiversity Conservation Amendment (Moratorium on Aquifer Drilling Connected with Coal Seam Gas Extraction) Bill 2013; at www.aph.gov.au.

The mining industry has expressed concerns about additional regulatory measures recently announced at both the federal level and in NSW.[30] However, ANEDO strongly supports explicit federal oversight to protect water resources from mining impacts; and additional measures to protect areas and land uses where mining is clearly incompatible. While the processes leading up to these policy developments may not have been optimal, this can be seen as a symptom of previous reluctance to fully engage with community, legal and scientific concerns about lagging and inadequate regulation.

'Environmental issues'

The Issues Paper cites a 2006 industry study which suggests that minerals and energy explorers may be required to undertake premature, duplicative, unwarranted or excessive analysis of exploration activities, resulting in delays and additional costs. The 2006 study also suggests there is an 'inadequate use of performance based standards and risk based regulation to meet environmental requirements'.[31] The study puts forward a case for less 'prescriptive' and more 'flexible' mining regulation.[32]

ANEDO does not agree that these arguments and limited examples propose the best direction for reform.[33] The dangers in increasing flexibility of assessment and approval requirements are that decisions become more discretionary; procedures are more confusing and outcomes less certain; corruption risks are created;[34] and public understanding and trust in the system is reduced.

To avoid these risks, ANEDO submits that mining and planning laws must include both substantive environmental outcome standards and minimum 'system' safeguards. The latter include clear assessment and approval processes set down in legislation, objective decision making criteria, and review and oversight of decisions.[35]

Australian planning systems already classify development into different tracks based on the size, nature and risk profile of the development. While this is appropriate, interpretation of what a 'risk based approach' means can be problematic for CSG regulation for example, because the exploration stage uses similar techniques to production, albeit on a smaller scale. As the case studies at **Attachment B** illustrate, some CSG wells drilled or proposed in very sensitive areas have not been classified as development that would automatically require a full environmental impact statement. This has drawn a strong reaction from local communities, and from the NSW Parliament.

ANEDO offices have previously expressed concern at the limited nature, oversight and transparency of environmental impact assessment and approval of exploration activities. In NSW, this was particularly problematic when CSG exploration did not require a detailed environmental assessment or development consent. Prior to amendments that

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[30] See NSW Premier media release, 'Tough new rules for coal seam gas activity', 19/2/2013; see also Australian Environment Minister media release, 12/3/2013, 'Greater protection for water resources', at http://www.environment.gov.au/minister/burke/2013/mr20130312.html.

[31] Quote from Productivity Commission Issues Paper (2012), p 22.

[32] URS/MCA, *National Audit of Regulation Influencing Mining Exploration and Project Approval Processes* (2006), pp 60-64.

[33] Although we agree on the general point that performance standards could be greatly improved – such as by additional ,'triple bottom line' monitoring and reporting against environmental outcomes and NRM targets.

[34] See Independent Commission Against Corruption (NSW), *Anti-corruption safeguards in the NSW planning system* (Feb. 2012), 'Providing certainty', p 5. Available at www.icac.nsw.gov.au.

[35] In June 2012, ANEDO set out 10 best practice elements for planning and environmental laws (in response to COAG's April 2012 reform proposals): clear objects that prioritise ESD; objective environmental outcomes tests; independent and comprehensive assessment; impact minimisation; robust strategic environmental assessment; oversight and review; public participation; compliance and enforcement; monitoring and review.

commenced in October 2011, most CSG exploration in NSW was only subject to a preliminary 'review of environmental factors' (**REF**), instead of a more comprehensive and transparent 'environmental impact statement' (**EIS**). Concerns have been raised about accuracy, departmental oversight, and the fact that REFs are not publicly released until *after* the Department awards the exploration licence, which reduces public scrutiny and confidence in the process.[36] As examined in the Fullerton Cove case study below, REFs are still used for small-scale CSG exploration, and all other activities that do not require formal development consent (including coal exploration).[37]

Assessment, compliance and enforcement case studies

Attachment B to this submission includes three relevant case studies on assessment, compliance and enforcement issues, taken from ANEDO's submission on a *Draft National Harmonised CSG Framework* (2013). The case studies highlight the need for a combination of factors for effective assessment compliance and regulation of CSG and other mining activities. This includes:

- comprehensive environmental impact assessment;
- robust licensing and development consent conditions;
- mandatory baseline data, ongoing monitoring and oversight of mining activities;
- independent regulators with the powers, skills and resources to act on breaches; and
- open and accessible court processes for communities to take enforcement action themselves where necessary.

[36] See *Report of the Legislative Council Inquiry into CSG* (May 2012), recommendation 12. See also EDO NSW, *Ticking the Box – Flaws in the Environmental Assessment of Coal Seam Gas Exploration Activities* (Nov. 2011), at www.edo.org.au/edonsw/site/pdf/pubs/ticking_the_box.pdf . This report contains a number of case studies highlighting inadequacies in the NSW 'Review of Environmental Factors' process.

[37] See Part 5, *Environmental Planning and Assessment Act 1979* (NSW); and the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*.

ATTACHMENT A – Executive Summary of ANEDO's Submission to COAG SCER on a Draft National Harmonised Regulatory Framework for Coal Seam Gas 2012 *(February 2013)*[38]

ANEDO's experience with communities affected by coal seam gas suggests the current laws and policies that regulate CSG exploration and production are in need of reform. Our current regulatory approaches are a complex, evolving network of intersecting laws and policies, without clear oversight or direction. A national harmonised framework for CSG regulation should promote systems that:

- are comprehensive, but not unnecessarily complicated or inconsistent;
- fully account for all economic, social and environmental impacts of CSG on the site, region and State (both positive and negative);
- are science-based and evidence-driven;
- respect and engage communities in land use and project decision-making; and
- integrate with natural resource management (**NRM**) laws, principles and targets.

ANEDO welcomes the identification of 18 'leading practices' across the four main areas covered in the Draft Framework – well integrity, water management and monitoring, hydraulic fracturing and chemical use.

However, unfortunately both the Draft CSG Framework and the Draft Multiple Land Use Framework adopt an underlying presumption that CSG can occur in any landscape, provided impacts are properly 'managed'. This ignores a fundamental need for evidence-based land use planning and NRM objectives. Leading practice would be to identify environmental baselines and limits to the environment's carrying capacity (a catchment approach), and ensure that mining and any other development will not occur if it would compromise these limits and capacity.

In addition, there are several other important areas which the Draft Framework does not address in sufficient detail. This submission notes a number of areas that are central to the integrity and sustainability of CSG regulation. Many of these align with the 'significant considerations' identified by the SCER.[39] Importantly, any national CSG framework must also outline specifics on:

- how jurisdictions will implement and comply with the 'leading practices'; and
- how COAG or the SCER will ensure that progress to implement the Framework will be independently measured, monitored and reported on.

To address these concerns, ANEDO makes a number of recommendations to **better regulate CSG across five broad areas**. We submit that any national harmonised regulatory framework must require the following:

1. **Mechanisms to ensure development is ecologically sustainable, and subject to objective decision-making criteria;**
2. **Thorough and independent assessment of all environmental impacts;**
3. **Better community engagement in land-use decision making;**
4. **Long-term strategic planning that achieves triple bottom line outcomes;**
5. **Increased monitoring and enforcement, and regular reporting and review.**

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[38] See: http://www.edo.org.au/edonsw/site/pdf/subs/130228CSG_draft_national_framework_ANEDO.pdf.

[39] The SCER's *Coal Seam Gas Policy Statement* (9 December 2011), under 'Drafting of a harmonised framework', gives a useful outline of 'significant considerations' – including 'environment, land access, occupational head and safety, reporting requirements, cumulative impacts, performance benchmarking; audit, compliance and accountability; transparency; and data sharing…'. However, the Draft Framework focuses on four core technical areas only. Available at http://www.scer.gov.au/workstreams/land-access/coal-seam-gas/.

First, the laws that regulate CSG and other mining[40] should aim to achieve **ecologically sustainable development (ESD)**; and decision makers must exercise their functions and powers consistently with ESD principles.[41] 'ESD' integrates environmental, social and economic factors into decision-making.

To do this effectively, legislation must require ESD principles to be applied in decision-making frameworks; and ensure that our mining, planning and NRM laws adopt consistent policy aims and objective environmental targets. By contrast, this submission shows how – at present – inconsistent and competing policy objectives, coupled with discretionary decision-making criteria, form a barrier to balanced decision making.

The overarching aim of mining (including CSG) and planning laws should be to achieve ESD, with objective decision-making criteria, assessment tools and performance measures to support this aim. In particular, ANEDO recommends that objective targets and limits should be identified and adhered to across various environmental indicators, as part of strategic planning and project assessment. CSG and other activities should only be approved if their impacts are within the identified and acceptable environmental limits of the catchment or region.[42] This approach is consistent with achieving ESD.

Second, our laws should **improve environmental impact assessment (EIA)** to meet world's leading practice. This should include:

- improving the **independence and rigour** of project assessment and approval;
- adopting a **catchment-wide approach to assess cumulative impacts and safe environmental limits**[43] – in relation to water, biodiversity, native vegetation, soil and air quality (including public health considerations), and greenhouse gas emissions;
- mandatory assessment of the **climate change impacts** of proposed projects (from mitigation and adaptation perspectives), with specific conditions to address these;
- funding independent scientific assessment of CSG's lifecycle **greenhouse gas emissions** (including fugitive emissions) and its potential to contribute to or mitigate climate change;
- **effective oversight and quality assurance of EIA** – including better offences and penalties for inaccurate or incomplete information; audits and enforcement; and clear regulatory responsibilities;

[40] For example, the *Petroleum and Gas (Production and Safety) Act 2004* (QLD); the *Petroleum Onshore Act 1992* (NSW); the *Mining Act 1992* (NSW); the *Environmental Planning and Assessment Act 1979* (NSW).

[41] ESD principles include:

- The *precautionary principle* (if there is a threat of serious or irreversible harm, lack of full scientific certainty should not be a reason to postpone measures to prevent environmental degradation);
- *Conservation of biodiversity and ecological integrity* as a fundamental consideration in decision-making;
- *Intergenerational equity* (maintaining and protecting the health, diversity and productivity of the environment and natural resources for future generations);
- *Improved valuation, pricing and incentive mechanisms* – so that the valuation of goods and services includes environmental factors (assets, services, and costs); and
- The *polluter pays* principle (related to the principle above – that those who generate pollution or waste should bear the cost of containing, avoiding and abating it).

[42] See further John Williams Scientific Services (2012), chapter 7, recommendations 1 and 2. Note, for example, ESD principles such as intergenerational equity, and including biodiversity conservation and ecological integrity as fundamental considerations in decision-making.

[43] Noting that cumulative impacts extend beyond CSG to other mining, agriculture and other impacts.

- adopting sophisticated, 'triple bottom line' **costs benefit analysis, not economic impact analysis** – so that the adverse environmental, economic and social impacts of CSG projects and development are considered as well as economic activity and benefits;[44]

Third, we seek laws that are fairer to local communities, by **improved notification, education, public participation, appeal and compensation rights.** This should include:

- ensuring that both mining and planning laws include comprehensive and mandatory rights to **public access to information, notification and consultation** at all stages (licensing, environmental assessment, approval and post-approval), including for major projects;
- improving trust and accountability through community rights for **merit appeals, judicial review, and 'open standing'** for enforcement proceedings, including for major projects;
- consultation with **Indigenous communities** to identify and implement leading practices for tailored engagement strategies and cultural heritage protection;
- establishing a robust, equitable and transparent **compensation regime** for mine-affected stakeholders, in addition to comprehensive environmental management;
- Improving the clarity and consistency of **terminology** used across mining laws.

Fourth, our mining and planning laws should ensure effective **strategic planning**. Leading practices for strategic planning should:

- **engage and listen to communities**, and present a range of options and consequences for communities to deliberate on;
- **properly value environmental assets**, and the ecological services and social benefits they provide – as an integral part of 'triple bottom line' outcomes;
- **protect areas of high conservation value and key agricultural lands** from mining activities, as part of a balanced to resolving land use disputes and achieving ESD;
- **integrate decisions** on mining with regional, state/territory and federal NRM targets.
- **protect communities from** by providing minimum restricted areas around communities where coal seam gas extraction or related infrastructure may not occur.

Fifth, to improve compliance, regulatory systems need to ensure more widespread and effective **monitoring, enforcement and reporting**. This would include:

- practical steps to **measure, share and analyse environmental data** across jurisdictions;
- **accurate, transparent and publicly accessible** information, pre- and post-approval;

[44] See for example, Report by Economists at Large (2011) in relation to the proposed China First Coal mine in the Galilee Basin, which discusses the importance of costs benefit analysis: http://bimblebox.org/wp-content/uploads/2012/01/Economists-at-Large_Report-for-Bimblebox-Landholders.pdf. See further the 'stepwise approach' to valuing environmental benefits under UNEP's *The Economics of Ecosystems and Biodiversity* program, at http://www.teebweb.org/publications/teeb-study-reports/local-and-regional/.

- shared commitment from industry and governments to **fund improved monitoring and enforcement** – as a necessity of doing business safely and responsibly;
- frequent, **independent audits of compliance** with licensing and planning conditions;
- effective **site rehabilitation** conditions, and enduring responsibility for future impacts and rehabilitation goals;
- clear lines of **enforcement responsibility**, and **accountability for performance**;
- specific steps on how jurisdictions will **implement and comply** with any National Harmonised CSG Framework, and how performance will be independently **assessed, monitored and reported on** (for example by the COAG Reform Council).

This submission considers these five areas in further detail below. Overall, ANEDO's recommendations identify a range of 'leading practices' that should be incorporated in any national CSG framework. It is hoped that these five overarching aims, and the accompanying recommendations, will assist in better harmonising the regulation of coal seam gas across Australia.

ATTACHMENT B –Assessment, compliance and enforcement case studies[45]

Case study 1 – *Fullerton Cove Residents Action Group v Dart Energy & Ors* [2012] NSWLEC 207

The Fullerton Cove Residents Action Group (**FCRAG**) challenged a proposal for the drilling of CSG exploration wells by Dart Energy at Fullerton Cove, a small area 11km from Newcastle, bounded by a number of national parks and conservation areas, including an internationally-listed Ramsar wetland.

The Pilot Appraisal Exploration Program (**Pilot**) was for two vertical wells drilled into two separate coal seams, with four lateral wells, two in each coal seam. The Pilot included the pumping of water out from the coal seams (16,000 litres per day), allowing the gas to flow during a 12-month period. The purpose of the project was to test whether the gas was suitable for commercial production and sale. The drilling was to take place on a floodplain zone, in a high water table area, near the protected wetlands. The project was controversial because of its sensitive surroundings, and protests were held outside the site for nine days prior to the injunction.

The FCRAG challenged the Department's approval of the Pilot, under Part 5 of the NSW *[Environmental Planning & Assessment Act 1979]*, in the Land and Environment Court. The FCRAG argued that the Pilot required a full Environmental Impact Statement (**EIS**), including mandatory public consultation. The FCRAG also argued that the Pilot was not properly assessed under Part 5, particularly in relation to potential impacts on groundwater and threatened species.

In September 2012, the Court granted the first injunction against CSG drilling at Fullerton Cove. The Court's interlocutory orders restrained Dart Energy from conducting any drilling as part of the Pilot. The injunction remains in place while the main case, heard before Justice Pepper on 15-19 October 2012, is determined (judgment is reserved at the time of writing).

The Court held that an injunction was necessary because Dart Energy had declined to provide an undertaking that it would not proceed with drilling and production while the Court case was on foot. In granting the injunction, Justice Sheahan stated that 'if significant environmental harm is, in the end, caused beneath the surface, damages will not be an adequate remedy.'[46]

As the NSW Fullerton Cove case illustrates, some CSG wells in very sensitive areas will not be classified as development that automatically requires a full EIS. In response to concerns about preliminary REFs (including the finding that no REF for CSG exploration had ever triggered further assessment requirements), the NSW Inquiry into CSG recommended greater involvement of environmental agencies in these assessments. However, the NSW Government did not accept this recommendation.[47]

[45] Excerpted from ANEDO's *Submission on the Draft National Harmonised CSG Framework* (Feb. 2013), at: http://edo.org.au/policy/130228%20CSG%20draft%20national%20framework%20-%20ANEDO%20submission.docx.

[46] *Fullerton Cove Residents Action Group Incorporated v Dart Energy Ltd* [2012] NSWLEC 207 at [39].

[47] See NSW Legislative Council Inquiry Report into Coal Seam Gas (May 2012), recommendation 12: 'That the NSW Government require, in the preparation of a Review of Environmental Factors, referral to the Office of Environment and Heritage.' The NSW Government Response (Oct. 2012) rejected the recommendation, stating that the current 'advisory roles' for the OEH and the Environment Protection Authority (EPA) are sufficient.

Case study 2 – *CSG in the NSW Pilliga region*

The Pilliga forest is Australia's largest inland forest. It is home to numerous threatened species. The layers of sandstone under the forest filter water into the Great Artesian Basin. Over 50 ponds were drilled in the forest by Eastern Star Gas.[48]

A May 2012 report by conservation groups highlighted a number of breaches of petroleum exploration licence conditions from unauthorised discharges of CSG water and treated water in and around the Bimblewindi Water treatment plant.[49] The conservation groups commissioned scientific testing that compared contaminated spill areas with uncontaminated areas and found trace elements up to 171 times naturally occurring levels for metals such as zinc, and others including lead, arsenic and chromium.[50]

Of particular frustration was that there had been eight audits into the CSG operation by the NSW Government but none had led to any action against the companies involved.[51] However as a result of these breaches Santos, on taking over the Pilliga CSG operation, halted operations in February 2012 and agreed to commit $20 million to rehabilitation of the area.[52]

A July 2012 visit by journalists found that many of the problems still remained, with native animals drinking polluted water from uncovered ponds and ponds on the verge of overflowing. Many wallabies, goannas, kangaroos and turtles have been found dead in or near the drilling ponds. Some of the ponds were lined with plastic and others were scraped together mounds of dirt.[53]

In its May 2012 report, the NSW [Legislative Council] CSG Inquiry concluded:

> *It is inexcusable that this pollution went undetected by NSW Government authorities, despite community complaints, until Santos admitted many months later that a breach had occurred. … This incident demonstrates the weakness in Government monitoring and enforcement activities…. Given this example… the Committee must be sceptical of the claim by the industry that all coal seam gas companies are meeting their licence conditions…*

[48] S. Coutts, "Pillaging the Pilliga", *The Global Mail*, 26 October 2012, available at http://www.theglobalmail.org/feature/pillaging-the-pilliga/447/.
[49] Northern Inland Council for the Environment & the Wilderness Society, "The Truth Spills out: A case study of Coal Seam Gas Exploration in the Pilliga", May 2012.
[50] Ibid, p 22.
[51] Ibid, p 13
[52] S. Coutts, "Pillaging the Pilliga", *The Global Mail*, 26 October 2012, available at http://www.theglobalmail.org/feature/pillaging-the-pilliga/447/.
[53] Ibid.

Case study 3 – *Queensland cases involving chemical concerns and breaches*

There are concerns about the chemicals used during the 'fraccing' process, and the lack of comprehensive analysis to date by the national chemical regulator, NICNAS. These concerns have not been helped by recent incidents in Queensland where projects involving gas drilling have caused damage to the environment. For example, various prosecutions are ongoing in Queensland after contamination to groundwater from the wells of the Kingaroy underground coal gasification project. While underground coal gasification involves a different process to CSG exploration, it still uses wells to extract the gas from the coal seam which involves risks to aquifers.

In March 2010, five days after commencing operations, there was a failure involving the fracturing of cement grout lining of the well wall. This led to the well becoming blocked and gas escaped into the surrounding geology along with the contaminants benzene and toluene.[54] Bore monitoring data revealed benzene in the lower aquifer known as the Kunioon coal seam, which stabilised at a level 15 times greater than the water trigger level permitted by the environmental authority.[55] There is no safe level of benzene in drinking water.[56] Surrounding landowners were advised not to use the water and Cougar Energy was required to provide replacement water supplies to them.[57] The project was shut down in July 2010.

In September 2012, the Queensland Ombudsman released a report on its investigations into the Kingaroy underground coal gasification project.[58] The report looked at the issues raised by the decision of the Environmental Authority that no Environmental Impact Statement (EIS) was required when there was the potential for impacts on water quality, hydrology and groundwater.[59]

The report expressed concern about the lack of continuous monitoring and review of the conditions of approval to ensure best practice was being followed.[60] Another concern was the fact that no one with groundwater expertise reviewed the conditions for the environmental authority.[61] The report recommended that all projects should collect baseline monitoring data with a minimum of 12 months data completed prior to production commencing.[62] The Ombudsman concluded that "in my view the nature of novel or emerging technologies, when associated with high or unknown risks of environmental harm, warrants a greater level of oversight and monitoring by the regulator."[63]

[54] *Cougar Energy Ltd v Debbkie Best, Chief Executive Under the Environmental Protection Act 1994* [2011] QPEC 150 at [10].
[55] Ibid, at [12].
[56] Ibid, at [27].
[57] *Cougar Energy Ltd v Debbkie Best, Chief Executive Under the Environmental Protection Act 1994* [2011] QPEC 150, at [30].
[58] Queensland Ombudsman, 'An investigation into the approval and oversight of the Kingaroy underground coal gasification project', September 2012, at http://www.parliament.qld.gov.au/documents/tableOffice/TabledPapers/2012/5412T1124.pdf.
[59] Ibid, p 8-11.
[60] Ibid, p 15.
[61] Ibid, p 21.
[62] Ibid, p 29-30.
[63] Ibid, p 43.