



**Submission by Lighter Footprints to
The Senate Environment and Communications Legislation
Committee
regarding its inquiry into the
Galilee Basin (Coal Prohibition) Bill 2018**

Thank you to the Senate Environment and Communications Legislation Committee for the opportunity to contribute to your examination of the proposed bill by Senator Larissa Waters which is intended to prohibit constitutional corporations within the meaning of section 51 (xx) of the Constitution from mining for thermal coal within the Galilee Basin in Queensland.

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Who is Lighter Footprints?

This submission is by Lighter Footprints, a group of concerned residents (now around 2000) from Boroondara and Whitehorse municipalities in Melbourne who came together in 2006 to see what we could do about the serious challenge of climate change. Our community recognises that climate change has been scientifically demonstrated for some years, and the extent of the challenges leads us to be impatient for effective action.

Our position

We support the provisions of the Galilee Basin (Coal Prohibition) Bill 2018. We are of the view that any project to establish and operate a coal mine in this region is totally unacceptable in light of the climate emergency the world is now facing and should not proceed. In the absence of any other legislation that can adequately assess the devastating environmental effects of such activities on climate, we would support it being enacted.

We consider however that this is a very limited attempt to solve a much larger problem and would recommend that the Committee turn its attention to bringing about a comprehensive overhaul of Federal environmental legislation that is legally durable, reflects the urgency with

which we must act in response to the growing climate emergency and responds to the widespread support within the Australian community for action that treats this threat with the gravity it deserves.

Our opposition to coal mining in the Galilee basin and elsewhere

We oppose coal mining in the Galilee Basin (including but not confined to any proposed activity by Adani) and elsewhere. We believe that we are now confronting an emergency as the impacts of climate change become more apparent and extreme every day.

Unless we take immediate, decisive and far-reaching action to limit global warming below 1.5°C, our world will become unrecognisable and incapable of supporting life as it currently exists. Such action includes disallowing any new mining projects and reducing exports of coal. If we do not act now, the world that we hand on to future generations will be very different and significantly more hostile to all forms of life than the one that we have experienced in the past.

Specific factors that drive our concern include the following:

- the recently released IPCC (Intergovernmental Panel on Climate Change) that warns that we have only until around 2030 for carbon emissions to peak and begin to decline in order to keep global warming below 1.5°C.

We note that this analysis by the IPCC is challenged by other scientists. We support the assessment that 2030 is too late to allow emissions to peak in order to stay below 1.5° and that we must start the decline in emissions now.

- the stark contradiction that exists between Australia's ratification of the Paris Agreement which aims 'to strengthen the global response to the threat of climate change (Art. 2(1))' and actions that include the approval of new coal mining operations and continued coal exports;¹
- the failure by Adani or any other potential operator to establish a business case for such activities and the likelihood that any proposed mine and rail line will become 'stranded assets' due to increasing global constraint on the use of coal;²
- the damage such projects will have on the ecology of this region including its water resources and its indigenous heritage;
- the damage likely to be caused to the Great Barrier Reef by the transport of coal;
- the health impacts on workers and the community caused by the handling and transport of coal and the coal dust generated;

¹ <http://www.canberratimes.com.au/comment/this-is-not-rhetoric-approving-the-adani-coal-mine-will-kill-people-20170518-gw7nv9.html>

² <http://ieefa.org/ieefa-update-increasingly-cursed-australian-coal-project/>

- the falsehoods promulgated by Adani about its contribution to the local economy especially the number of jobs that will be created; and the precarious financial position of the company in India;³
- the misrepresentation of the level of international demand for coal ⁴;

Our perception that we are confronting an emergency is reinforced by IPCC report released in October 2018 which gives a very clear warning that we are rapidly running out of time and capacity to address the impact of climate change on our world. As the report points out,

*Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.*⁵

The report warns that in order to limit global warming to less than 1.5°C, we have less than 15 years to achieve net zero emissions.

Under emissions in line with current pledges under the Paris Agreement (known as Nationally Determined Contributions, or NDCs), global warming is expected to surpass 1.5°C above pre-industrial levels, even if these pledges are supplemented with very challenging increases in the scale and ambition of mitigation after 2030 (high confidence). This increased action would need to achieve net zero CO₂ emissions in less than 15 years. Even if this is achieved, temperatures would only be expected to remain below the 1.5°C threshold if the actual geophysical response ends up being towards the low end of the currently estimated uncertainty range. Transition challenges as well as identified trade-offs can be reduced if global emissions peak before 2030 and marked emissions reductions compared to today are already achieved by 2030⁶.

We consider the approach encapsulated in the proposed bill is an attempt to overcome the inadequacies in existing environmental legislation. The Environment Protection and Biodiversity Conservation Act 1999 in particular fails to address activities which are so obviously against the interests of future generations of Australians. It also fails to provides any capacity to facilitate a meaningful and proportional response by Australia to the global impact of climate change.

³ <http://economictimes.indiatimes.com/industry/energy/power/gujarat-writes-to-centre-over-electricity-crisis/articleshow/58602110.cms>

⁴ <http://www.livemint.com/Industry/vwT7Kru9jsF0dUEDtLKOrL/Govt-plans-to-cut-coal-imports-for-power-PSUs-to-zero-in-FY1.html>

⁵ www.ipcc.ch/site/assets/uploads/sites/2/2018/07/sr15_headline_statements.pdf

⁶ www.ipcc.ch/site/assets/uploads/sites/2/2018/11/SR15_Chapter2_Low_Res.pdf

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

We believe there are major gaps in the EPBC Act that prevent best practice environmental impact assessments and approval decisions especially for projects such as those proposed for the Galilee Basin. These include:

- the lack of recognition of the Paris Convention in the EPBC Act for identifying proposals of National Environmental Significance;
- the reliance of the Commonwealth on assessments done for State Governments by ‘third parties’ and the lack of capacity or authority at the Commonwealth level to independently assess these inputs. The criteria for such assessments are often lacking in rigour and not onerous;⁷
- the capacity of the Federal Environment Minister to impose environmental conditions on a proposal without ensuring that these conditions are adequately monitored. This aspect is particularly relevant with respect to Adani’s access to water resources;
- the failure of the EPBC Act to include atmospheric emissions whether generated in Australia beyond the immediate location or internationally and caused by the subsequent use of the material produced by the assessable activity; and
- restriction on the consideration of damage to local impacts; the failure to take into account damage done to water resources more generally and in combination with other activities, and to items of National Significance outside the immediate area such as the Great Barrier Reef.

The low number of proposals being refused especially in the resources area suggests that development considerations are given priority over the environment in many cases. A Guardian analysis in 2015 of approvals found that:

[Since the inception of the EPBC Act in 2000] ... 96.2% of projects – which include mining, ports and other infrastructure – have been given the green light, with conditions.

A further 1.6% of projects have been approved without conditions, and just 2.2% have been rejected, either at the approval stage or before. This means that only 18 developments have been vetoed, compared with 806 that have been approved.

The figures are made more stark when it comes to decisions involving the resources industry, with just three projects out of 276 having been turned down.⁸

⁷ <http://theconversation.com/why-arent-australias-environment-laws-preventing-widespread-land-clearing-92924>

⁸ www.theguardian.com/environment/2015/aug/12/australia-has-denied-environmental-approval-to-just-11-projects-since-2000

A factor in this is likely to be the wide degree of discretion of the Federal Minister in approving projects.

These weaknesses are demonstrated in the official Environmental Impact Assessment and other assessments already undertaken of the Adani proposal⁹. Specific examples include the assessment of the impact on water resources, the definition of the project study area for the EIS and the limited concept of allowable/disallowable activities that the Minister can identify as part of the approval.

Water Resources

As part of the requirement to assess the impact of a proposal on water resources, the Environmental Impact Assessment for the Adani proposal states:

All run of mine (ROM) coal will be transported by truck and/or overland conveyor to a centralised coal handling facility, where any high-ash (greater than 25 per cent ash) portion will be washed for blending with the bypass coal (un-washed coal). Coal will be stockpiled prior to loading to trains for transportation by rail¹⁰.

The water facility in this case appears to be for washing poor quality coal of high ash content. The proportion of poor quality coal to be washed and blended isn't specified or related to a water balance. Adani appears to rely on a GHD report on water resource as peer reviewed by URS in 2013. At five years old, the report would not include consideration to factors that have become prominent in recent times such as extreme weather events, evidence of spillage and contamination and cross utilization factors such as farming, CSG extraction.

Water licences are a State issue. We consider, however, that the licence granted to Adani has a number of unsatisfactory aspects including:

- the granting of an unlimited 60-year water licence;
- the failure to consider the impact this will have on other users and on the subsequent quality of the water;
- the effect on water pressure in the Great Artesian Basin; and
- the exemption of water license application from public scrutiny.¹¹

The water trigger (Section 131 AB of the EPBC Act) stipulates ongoing rigour including a water management plan. Under this provision, the Commonwealth has the authority to assess large coal mines and coal seam gas developments so that water resources are treated as a matter of

⁹ <https://theconversation.com/latest-twist-in-the-adani-saga-reveals-shortcomings-in-environmental-approvals-91821>

¹⁰ <https://www.statedevelopment.qld.gov.au/assessments-and-approvals/carmichael-coal-environmental-impact-statement.html>

¹¹ <http://theconversation.com/why-does-the-carmichael-coal-mine-need-to-use-so-much-water-75923>

national environmental significance, in relation to such developments. Such a plan should cover water mass balance, sensitivity analysis, and periodic risk reviews as well as unfolding factors such as demands and experiences with water in this drought prone area.

The water trigger means projects are assessed by an independent expert scientific committee (IESC). The IESC assessed the Adani project and reported in 2015. The Adani project was approved by Greg Hunt in 2015 with conditions on a range of things including the IESC recommendations on water being taken in to account.

As part of the Minister's approval, Adani was required to develop a Groundwater Management and Monitoring Plan (GDMP). They also had to do a number of things such as reinject water in to aquifers when certain levels are reached. This Management and Monitoring Plan is to be approved by the Minister when submitted by Adani and the government will be obligated to monitor and report on approved measures to ensure that conditions are being met.

We note that an independent scientific report commissioned by the Department of Environment from CSIRO has raised serious concerns over Adani's GDMP. The CSIRO report suggests Adani has used unverified data and that the plan in its current state is insufficient to protect a nearby site of natural significance (Doongmabulla Spring).¹²

The CSIRO has told the federal environment department that Adani needs to do more work on its GDMP and to verify its data. On the basis of this report, we believe the Queensland Department of Environment and Science has written to Adani saying it will not look at the company's GDMP again until the concerns raised by the CSIRO are resolved.

The Project Study Area for the Adani EIS

The EIS prepared by GDH for the Queensland Government defines the project study area in very specific terms as follows:

The Project comprises of two major components:

□ *The Project (Mine): a greenfield coal mine over EPC1690 and the eastern portion of EPC1080, which includes both open cut and underground mining, on mine infrastructure and associated coal processing facilities (the Mine) and the Mine (offsite) infrastructure including:*

- A workers accommodation village and associated facilities (including: industrial area and rail siding)*
- A permanent airport site*
- Water supply infrastructure*

□ *The Project (Rail): greenfield rail lines connecting the Mine to the existing Goonyella and Newlands rail systems; including:*

- Rail (west): a 120 km dual gauge portion from the Mine site running west to east to a junction with proposed lines running south-east to the Goonyella rail system and north-east to the Newlands rail system*

¹² <https://www.abc.net.au/news/2018-12-17/adani-water-management-plan-criticised-by-csiro/10625228>

- Rail (east): a 69 km narrow gauge portion connecting to the Goonyella rail system south of Moranbah to provide for export of coal via the Port of Hay Point (Dudgeon Point expansion)

The consequence of this definition is that the potential for damage to significant places such as the Great Barrier Reef are downplayed because of their distance from the project and outside the area of immediate consideration. Damage caused by activities other than the immediate construction and operation of project components are consequently ignored as shown from the following extract from the EIS.

World Heritage Properties, National Heritage Places and the Great Barrier Reef Marine Park

The DSEWPaC Projected Matters Search Tool did not identify any world heritage properties or National Heritage Places of relevance to the Project. The Wet Tropics World Heritage Area is located over 300 km north of the Study Area with no direct terrestrial, aquatic or biodiversity links to the Study Area. No influences from the Project are predicted to occur on the Wet Tropics World Heritage Area and this area has not been considered further within this assessment. The Tree of Knowledge and curtilage at Barcaldine is the closest National Heritage Place to the Study Area. It is located approximately 200 km south-west of the western extent of the Study Area. No direct or indirect influences on this Place will occur as a consequence of the Project and this Place has, therefore, not been considered further.

The Great Barrier Reef World Heritage Area and the Marine Park, are located over 300 km downstream of the Study Area and although connected aquatically via watercourses, substantial watercourse and overland barriers exist between the ocean and the Study Area, including the Burdekin River dam. Significant controls will be established to manage onsite and offsite water and sediment quality impacts. These measures will mitigate potential for offsite impacts to aquatic values that could affect the downstream reefal environment. The distance from the GBR and the extant barriers would impede site conditions from having an influence on the values for which the reef is protected. Accordingly no impacts to the ecological, cultural or social values which the Great Barrier Reef is recognised will occur as a result of the Project.

The Project will not impact upon any World Heritage Areas, National Heritage Places or the Great Barrier Reef Marine Park.¹³

Allowable activities

As part of the Minister's approval, there will be a number of both allowable and disallowable activities that can take place as part of the project. At present, the Act only concerns itself with activities immediately related to the mine and rail line construction and operation.

¹³ <https://www.statedevelopment.qld.gov.au/assessments-and-approvals/carmichael-coal-environmental-impact-statement.html>

Supporters of Adani's Carmichael coal mine claim it will improve air quality and lower greenhouse gases because it would supply India with "high quality" Australian coal. This however is in contradiction with other reports that identify the poor quality to be produced by these mines. These reports indicate that the Carmichael coal is only marginally better quality than that sourced in India. As it is likely to be used more widely than the limited supply of Indian coal, it would be increasing rather than reducing emissions and pollution.

Associate Professor Gavin Mudd, from RMIT University, has mapped the quality of coal deposits across Australia. He said:

*"If you look at the Galilee Basin coal, there's a reason why it hasn't been developed — it's poorer quality coal, compared to other places of Australia," Dr Mudd said. "It's certainly not as bad as brown coal from an energy point of view, but from an ash point of view it's almost 10 times more ash content."*¹⁴

His report shows the average energy content of coal at Adani's planned mine is about 18 per cent below benchmark Australian coal. Adani has conceded in court the ash content would be about 26 per cent, roughly double the Australian benchmark.

Recommendations

1. Galilee Basin Act

We support the enactment of the Galilee Basin (Coal Prohibition) Bill 2018 on the grounds that it provides some capability to prevent projects such as that by Adani from proceeding. We are concerned, however that this may not be the most robust or durable way to achieve this outcome.

2. Measures to remedy gaps in the existing EPBC Act

We consider that while the bill put forward by Senator Waters aims to rectify an important deficit in existing environmental legislation and in particular to create capacity to prevent the Adani proposal, it does not remedy the substantial gaps in the existing EPBC Act. We recommend that the Committee extend its reference to examine how these gaps can be remedied.

For example, the possible damage done to the Great Barrier by this project is of deep concern to Australians wherever they live in this country. At present, these fears are not taken into account in the EIS prepared for the Queensland Government.

In particular, we recommend that the following changes to the EPBC Act be investigated

- The inclusion of a national interest criteria that extends the concepts of environmental and social impact or damage beyond the area local to the proposed project to include that experienced by all Australians who value the environmental or heritage worth of that specific area.

¹⁴ <http://www.abc.net.au/news/2017-04-03/adani-plans-to-export-low-quality-coal-to-india-report-says/8409742>

- The restoration of authority to give the Commonwealth power to undertake its own independent EIS of projects that can be demonstrated to have an impact beyond state borders and with implications under the Paris Convention

3. Water trigger and water management plan

We recommend that the committee investigate ways to ensure that Adani complies fully and transparently with the conditions imposed on it as part of the granting of a 60-year unlimited water licence. This recommendation is crucial as evidence already exists that Adani is not complying with the safeguards established to monitor its water usage¹⁵.

Mechanisms to ensure compliance with these conditions should include

- Parliamentary processes to make sure adequate and appropriate monitoring and reporting mechanisms are in place should the project go ahead.
- Measures to ensure unfolding risks are covered off under best practice by risk reviews, adjustment to mitigation measures and in a worst case scenario by abandonment of the project

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Joy Mettam and Julian Atchison
Members, Lighter Footprints

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¹⁵ <https://theconversation.com/latest-twist-in-the-adani-saga-reveals-shortcomings-in-environmental-approvals-91821>