Coalmine Expansion: Overview

Introduction

Australia's coal industry faces an uncertain future. Two decades of increasing economic returns entrenched coal as one of the most important export industries in Australia, resulting in a boom in both the workforce and infrastructure and strong federal-level government support. Providing coal for Indian and Chinese power plants and steel mills has afforded mainstream Australians an unprecedented level of wealth and luxury.

As nations such as India and China complete their development processes, however, international demand for coal has begun to dwindle, leading to broad staff cuts and delays to major proposals. Global concerns about climate change and biodiversity loss, coupled with freshwater pollution...
issues, have put additional strains on the industry. The Australian government has committed itself to assist in major reductions to global carbon dioxide (CO₂) emissions, which stands at odds with expanding the coal-export industry.

Nevertheless, several large proposals were approved in late 2015, including Adani's Carmichael Mine in Central Queensland and Rio Tinto's Warkworth Mine at Hunter Valley, New South Wales (NSW). Economists, politicians and other experts remain divided as to whether the projected benefits from continued coal dependence will outweigh its mounting environmental, economic and social risks.

Understanding the Discussion
Biodiversity: The variety of living organisms in an area, expressed through number of species, their relative value, and the value of the area as a whole based upon their combined interactions.

Economic boom: A rapid period of economic expansion involving increasing commodity values, production and employment.

Infrastructure: The physical structures and organisations needed to undertake an activity.

National development: The process by which a country improves the social welfare of its population, through infrastructure, education and other organisational means.

Social impacts: Effects upon the community, including health and environmental factors.

History
According to the Australian Bureau of Statistics (ABS), coal was first discovered in Australia in NSW by shipwreck survivors, in August 1797. Explorer George Bass confirmed the discovery, noticing coal embedded in inaccessible cliff faces south of Point Solander. Subsequently, Lieutenant John Shortland found deposits at the Hunter River mouth that could be reached more easily. Soon afterwards, coal deposits were uncovered to the west and south of the colony, and were mined for heating, cooking, and, eventually, steam power for trains. Coal was discovered in Victoria in 1825, at Cape Patterson; in Queensland soon after, beside Bremer Creek and Brisbane River; in Western Australia in 1846, on the Murray River; and in Tasmania between the Don and Mersey Rivers in 1850.

By 1889, Australia's growing coal mining industry had produced 25,000 tons. The government registered Coal Creek as the first official company, while further deposits were uncovered in South Australia at Kuntha Hill. The Jumbunna Company was registered in 1890, followed by the Outtrim, Howitt and British Consolidated companies in 1894. In 1903, a workers strike in Victoria upset the regional industry.

ABS data show the South Coast district produced 1.93 million tons in 1908, while the northern district produced 6.5 million tons, as the NSW industry rapidly expanded. Australia exported 2,500 tons in 1908, mostly from NSW. In July 1909, Victoria's legislative assembly passed the Coal Mines Regulation Bill, allowing the government to establish state-owned coal mines.

In the 1950s, Australia began exporting coal to Asia, mostly to Japan, South Korea, Taiwan and India, according to technology expert Adam Lucas. Regional coal industry regulation was introduced in Queensland through the State Development and Public Works Organisation Act of 1971 and in NSW through the Environmental Planning and Assessment Act in 1979. During this time, China entered a phase of rapid development, becoming a major coal importer.

In 1989, the Queensland government passed the Mineral Resources Act, further regulating the industry. In 1991, the Central Queensland Mining Rehabilitation Group formed; the group is a public
and industry forum where people can exchange information, concerns and experiences about mining projects nearby. In 1994, Queensland’s parliament introduced its Environmental Protection Act.

Economists Adrian Hart and Ronal Kumar explain that the 1990s marked an important time for the Australian coal industry, because China and India were developing too quickly to support their growth through domestically produced resources. Australian Bureau of Agricultural and Resource Economics (ABARE) figures from 1997 show that 135 million tons were produced in Queensland and 134 million in NSW. In 1999, Australia established federal-level coal industry regulation, in the form of the Environment Protection and Biodiversity Conservation Act, which could be enacted whenever a mining proposal presented nationally significant environmental risks.

ABS lists fifteen thousand Australian coal industry employees working in 2001, mining 345 million tons, from which 273 million tons of saleable coal were produced, according to ABARE. The price of coal boomed in 2002, Hart and Kumar explain, followed by an accompanying boom in mining investment in 2004. With Australia’s coal exports escalating, Lucas points out, the CO₂ emissions from the exports began to eclipse the country’s total domestic CO₂ output.

In 2005, in NSW, the State Environmental Policy (Major Projects) was established, as part of a series of legislative changes that designated the Department of Planning as the official body for developing new mine proposals. Hart and Kumar pinpoint 2007 as the year when the industry’s production boom began. In 2007, the Australian Coal Association (ACA) listed sixty active mines in NSW alone. The same year, the Intergovernmental Panel on Climate Change reported that Australia needed to reduce CO₂ emissions by up to 40 per cent below 1990 levels by 2020, and that China and India would also need to make major cutbacks to avert catastrophic global climate change.

In September 2008, the Queensland government introduced the Sustainable Resource Communities Policy to improve the assessment and management of the industry’s social impacts. Queensland was the biggest coal producer in Australia, with fifty-four active ACA listed mines. In December 2009, the Australian Government signed the Copenhagen Accord, committing to the prevention of a global temperature increase exceeding 2 degrees Celsius, but also understanding that this would not be possible while continuing to expand the coal industry.

In 2010, Adani Australia proposed the Carmichael Mine, one of the largest proposed coal mines in the world, which climatologist Chris Taylor stated would produce 4.7 billion tons of CO₂. Australia, then the world’s largest black coal exporter, and fourth-largest producer, generated $54.6 billion in coal exports in 2010, according to ABARE, and employed twenty-eight thousand workers.

In 2011, Australia exported 300 million tons of coal, according to the Bureau of Resources and Energy Economics (BREE), valued by the World Bank at $196 per ton. According to Hart and Kumar, this marked the pinnacle of the Australian coal industry. They explain Australia’s coal mining jobs continued booming until mid-2012, reaching a peak of sixty thousand workers, before entering a sharp decline, accompanied by a rapid decline in investments into the industry from its 2012 peak of $11.8 billion. Despite this, at the end of the year, the industry announced plans to triple or even quadruple black coal production from 2010 levels by 2030, according to Lucas.

Coalmine Expansion Today
In 2013, Australia’s Climate Commission published a report, The Critical Decade, stating that Australia was already experiencing adverse effects from climate change. The Australian government committed to an 18 per cent emissions reduction below 1990 levels by 2020 during the Kyoto Protocol’s second phase. Greenpeace Australia identified ninety-one new coal mine projects in the proposal stage, fifty-four for entirely new mines, with many intended to commence before 2020. Also in 2013, the Supreme Court blocked the proposed expansion of Rio Tinto’s Warwick Well Mine in Hunter Valley NSW, based on anticipated adverse social impacts.
The Australian Broadcasting Corporation reported Australian coal exports of $40 billion in 2014, mostly to China. By November, the price of coal had slumped to $92 per ton, according to the World Bank, because of the slowing of the Chinese economy. Hart and Kumar assert that the coal industry remained in a production boom phase, despite investments into Australian coal sinking 22 per cent since 2012. They noted that the industry has suffered because of increased operating costs, leading to several mines closing and major projects being delayed.

In January 2015, the BBC reported widespread staff cuts across the Australian coal industry, asserting the mining boom was over. BREE reported a $16 billion drop in Australian resource export earnings over the previous six months, which it attributed to lost royalty income and company tax. In March 2015, National Resource director Peter Colley stated that the coal mining workforce, comprising fifty thousand workers, had dropped by up to 25 per cent since 2012. He asserted that coal production was permanently declining in North America and Europe, mostly because of government legislation addressing climate change, the ending of government coal company subsidies, and the increasing affordability of renewable energy. He added that 80 per cent of Australian coal was exported.

The United Nations Environment Programme reported a global rise of 17 per cent in renewable energy investment in 2014, to US$270 billion. China and India made increasing commitments to renewable energy, with China’s investments increasing by 39 per cent. In October 2015, Adam Lucas stated that major multinational coal mining companies, including Rio Tinto, had suffered severe declines in share prices, which he attributed to growing awareness amongst economists about the problems the industry faced in Australia. The Australian government remained committed to the industry, in October 2015 approving Adani’s Carmichael Mine and Centennial Coal’s $265 million extension to Mandalong Mine in NSW, and in November, approving Rio Tinto’s Warkworth Mine.

Bibliography
Websites and Digital Files


About the Author
Graham Jury attained a bachelor of science degree in biological sciences from the University of Canterbury in 2007, a bachelor of arts degree with first-class honours in mass communication in 2008 and a postgraduate diploma in environmental sciences in 2010. He has worked for Greenpeace New Zealand and interned with Wellington’s Zealandia Sanctuary. In 2009 -- 10, he was spokesperson for the Save Happy Valley Coalition, a high-profile advocacy movement opposing the expansion of New Zealand coal mines into areas of high biodiversity on the South Island West Coast. He is a freelance writer based in Melbourne.

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Carmichael coal mine should not proceed

Regardless of whether the government ends up funding the rail link for the Carmichael Basin coal mine and the relative merits of doing so, it seems intent on proceeding with this project while steadfastly ignoring the science that says leave the coal in the ground and the economics that say it is not viable.

The quality of the coal is very poor, the location is expensive to transport from and better mines than this one are struggling to remain economically viable, it offends the indigenous peoples of the area and its product destroys the Great Barrier Reef.

Nationals leader Barnaby Joyce is interesting to observe as he is so entrenched in his position of support that he can hear no merit in any counter-argument at all - not a sound basis for government decision making. The only reason this mine would ever be opened is the LNP pro-business without limit attitude, a concept that is well past its use-by date.

Doing harm in government is surely something that individuals can be held accountable for and the Opposition is right to raise these points and resist further damage to the atmosphere.

The majority of the population is not supportive of this mine as the world moves progressively away from this dirty, outmoded fuel. It should not proceed.

Robert Brown

Camberwell, Vic
Environmental and economic madness.

I trust the wise heads in our government, which ostensibly supports the free market, will oppose the $1 billion subsidy to miner Adani (The Age, 5/12). The money will go towards the cost of a $2.2 billion railway line to serve the forthcoming Carmichael coal mine. A Coalition government, true to its lights, must not support a project whose economics are too weak to obtain the funds needed from the commercial banking sector and which will destroy swathes of our most productive farmland. If the government’s aim is to use subsidies to create jobs, then supporting Adani will be a waste of money. There are not many jobs in modern, highly automated mining.

Colin Simmons, Woodend

$1 billion giveaway, while welfare is slashed

Josh Frydenberg, the proposal to tip $1 billion of taxpayers’ money into Adani’s pocket is outrageous. Can you not see how this looks at a time when the government is crying poor and cutting welfare payments to the bone, to say nothing of the ridiculous backpackers tax fiasco? If you want to ignore the role of carbon dioxide in climate change, there are many stressed coal mines from which Adani can access coal without digging a giant hole in the Galilee. To say nothing of the certainty of collateral damage to the Great Barrier Reef caused by the export shipping. If the Queensland government insists on building a rail line, that is primarily a state matter using state revenue. The way is still open for the federal government to intervene. Adani is an offshore conglomerate and can pull the pin and walk away at any time, leaving its trail of destruction for Australia to try to remedy. I hope that the science combined with common sense prevails over ignorant, uncaring greed.

Henry Askin, Hawthorn

Why has Turnbull backflipped on Adani?

The Adani story is a scandal for the government. This mine will allow for the export of 330 million tonnes of thermal coal every for 60 years. During the federal election campaign in June,
Malcolm Turnbull said: "There is no public funds in Adani." Now his government says it may assist it with a grant of $1 billion. Clearly the government is drawing a distinction between a grant and a long-term, low-interest loan. This is the sort of weasel language that makes citizens regard politicians with disgust. A backflip by another name.

David Rose, Hamilton, NSW

A real risk that we won't get our money back

So the government is determined to go ahead with the Carmichael coal mine to the extent that it will help finance its railway by offering a $1 billion loan at a concessional rate because the banks will not. Apart from the potential environmental disaster involved and the real risk of Australians not getting their money back, I expect they will see the same benefit rolling in as we have from the gas export bonanza. That is, no tax and higher energy costs for our businesses and households.

Kyle Matheson, Mont Albert

Fight climate change, don't contribute to it

Malcolm Turnbull, I thought there was a budget emergency. Why are you prepared to grant a $1 billion loan to an Indian billionaire to help fund a project that will kill off the Great Barrier Reef and further contribute to climate change? If Adani group chairman Gautam Adani wants this mine so much, he should pay for it out of his own funds. The Australian government should do all it can to stop him, and fight against climate change rather than contribute to it.

Christine Morris, Hoppers Crossing