

Adani: Environmental Justice Risks in 2022



April 12, 2022, Adani's Carmichael Coal Mine.

Summary

In 2022, a client requested that Responsible Alpha develop 12 case studies and the underlying business, economic, and investment analysis used by 123 environmental, indigenous rights, and racial justice organizations in their letter to the Honorable Gary Gensler, Chair, U.S. Securities and Exchange Commission on the proposed rule "The Enhancement and Standardization of Climate-Related Disclosures for Investors."

Responsible Alpha's analysis suggests investors need companies to disclose their climate-related financial risks and strategies for managing them, their greenhouse gas (GHG) emissions, their plans to remain viable or thrive in a low-carbon future economy, and their financial resilience across these dimensions, as it relates to and is in support of the communities where these

companies exist, and their impacts are often felt and underreported. To further buttress and support this analysis, Responsible Alpha wrote 12 business cases of which the case below on Adani is one.

The global ultimate owner of the Adani Group is Gautam Adani and his family, who are worth \$124 billion.

The Adani Group is a diversified organization in India with market capitalization of \$183 billion, comprising seven publicly traded companies and numerous privately held wholly owned companies.

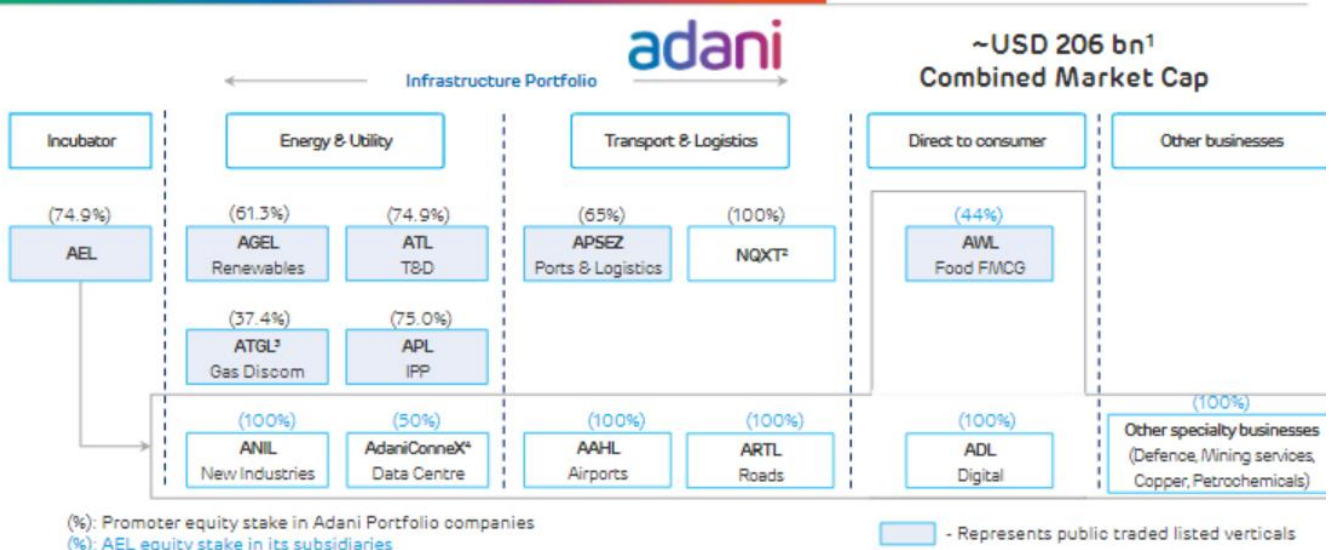
Note: As there is no company called **Adani Group** within the Government of India's business search database, the **Adani Group** appears to be the "doing business as" name for the diversified holdings of the Gautam Adani family.

The Adani Group has described along with ownership in their Adani Enterprises latest financial filings (see Figure 1 and Figure 2). Adani Enterprises Ltd is a \$30 billion market capitalization, \$4.5 billion in fixed income, 24 bonds and 12 loans, and 800 employee Indian company.

In Adani Group's diagrams (Adani Enterprise), they own:

- 100.0 percent of North Queensland Export Terminal (NQXT), which is the formally the now rebranded Abbot Point coal port in Queensland, Australia.
- 65.0 percent of Adani Port and Special Economic Zone (APSEZ), \$19 billion market capitalization, \$7.6 billion in fixed income, 1,200 employees, 21 bonds and 13 loans. APSEZ services the NQXT coal port in Queensland, Australia.
- 74.9 percent of Adani Transmission Limited (ATL), \$31 billion market capitalization, \$4.8 billion in fixed income, 5,300 employees, eight bonds, and 22 loans.
- 56.25 percent of Adani Electricity Mumbai Ltd. (AEML) (75.0 percent ATL multiplied by 75.0 percent AEML).

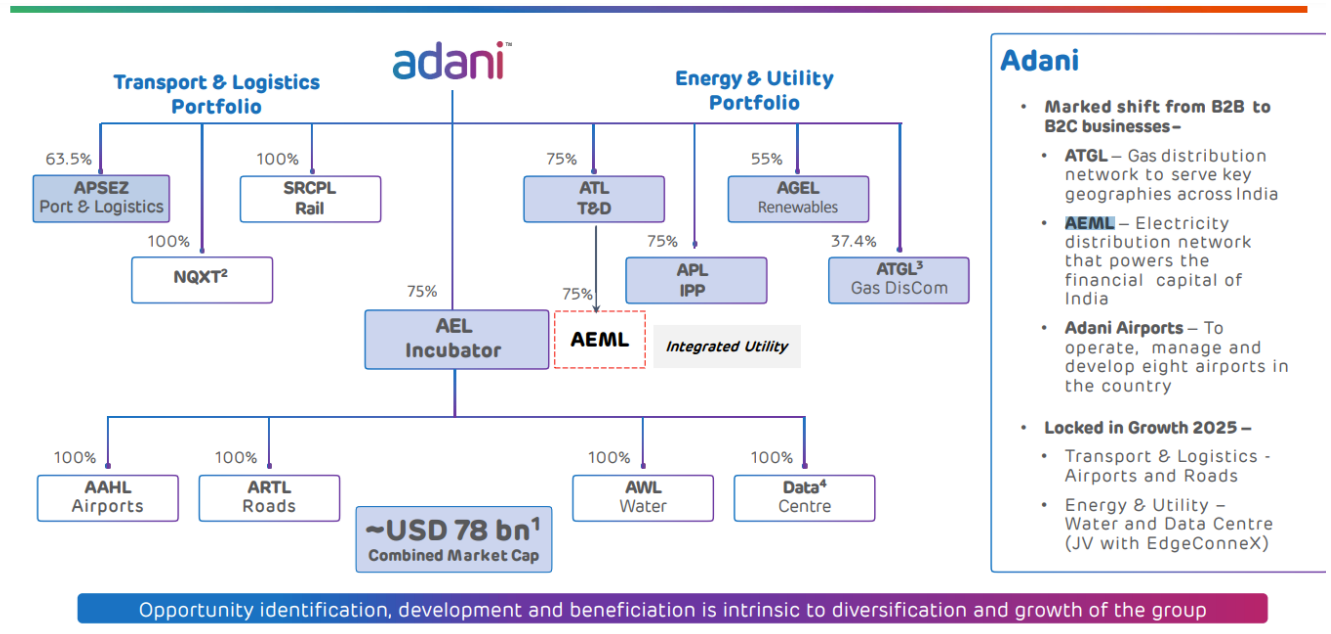
Adani Group : A world class infrastructure & utility portfolio



A multi-decade story of high growth and de-risked cash flow generation

1. As on Apr 29, 2022, USD/INR – 76.5 | Note - Light blue color represent public traded listed verticals 2. NQXT: North Queensland Export Terminal | 3. ATGL: Adani Total Gas Ltd, JV with Total Energies | 4. Data center, JV with EdgeConnex, | APSEZ: Adani Ports and Special Economic Zone Limited; ATL: Adani Transmission Limited; T&D: Transmission & Distribution; APL: Adani Power Limited; AGEL: Adani Green Energy Limited; AAHL: Adani Airport Holdings Limited; ARTL: Adani Roads Transport Limited; ANIL: Adani New Industries Limited; AWL: Adani Wilmar Limited; ADL: Adani Digital Limited

Figure 1: Adani Enterprises Corporate Presentation May 4, 2022. Publicly traded companies are shaded grey. The Adani Group



1. As on Feb 26, 2021, USD/INR – 72.6 | Note - Percentages denote promoter holding, 2. NQXT – North Queensland Export Terminal | Light blue color represent public traded listed verticals, 3. ATGL – Adani Total Gas Ltd, 4. AEL has announced JV with EdgeConnex, one of the largest datacenter operators in the world;

Figure 2: Adani Group and Its Ownership Structure.

Adani's Carmichael Mine was the first mine in a massive development scheme of nine or more "megamines" in the Galilee Basin, Queensland, Australia. Galilee Basin coal is a premium-quality low-sulfur and low-ash thermal coal. Adani has been trying to build out the Carmichael mine since 2010, originally planned to produce 60 million tons of coal annually for a total 2.3 billion tons over its 60-year lifetime.

Carmichael Mine is the only project that got off the ground. All the others were abandoned, shelved, or still under study. The unwillingness to invest, along with the behavior of Adani and the reluctance of the coal industry to invest suggest that risks to investors may be higher than previously revealed. 30 investors backed out of initially scheduled A\$16.5 billion investment over long-term strategic risks, legal, regulatory and reputational risk concerns. Adani is now self-funding a smaller mine at A\$2 billion.

The Carmichael mine is now operational producing 10 million tons of coal annually.

Adani Enterprises (dba "Adani Group")

The flagship company of Indian conglomerate Adani Group, Adani Enterprises Limited (AEL) is active in coal trading and mining, oil and gas exploration, ports, multi-modal logistics, power generation and transmission, gas distribution and edible oils, and agro commodities. It is India's largest coal trader and largest coal importer from Indonesia, South Africa, and the US, trading a total of more than 100 million tons; it also operates five coal mines. Beyond coal, AEL claims India's top edible oil brand (Fortune), operates one of the country's largest solar power plants and produces solar cells, and is a leader in the supply of natural gas to residential, commercial, and industrial customers. Primarily through partnerships and joint ventures, the company is involved in manufacturing aerospace & defense equipment. It generates more than 55% of sales in India.

Adani Ports and Special Economic Zone

Adani Ports and Special Economic Zone Limited operates a shipping port on the west coast of India. The Company provides cargo handling, transportation, storage, logistics, and evacuation services to energy, railway, thermal power generation and transmission, agricultural, and logistics industries.

Adani Transmission Limited

Adani Transmission Limited provides utility services. The Company offers electricity generation, transmission, and distribution services, as well as provides operation and maintenance support. Adani Transmission serves customers worldwide.

Adani Electricity Mumbai Limited

Adani Electricity Mumbai Limited provides energy solutions. The Company generates, transmits, and distributes electric energy. Adani Electricity Mumbai serves customers in India.

NQXT

Formerly known as Adani Abbot Point Terminal, North Queensland Export Terminal (NQXT) is Australia's northernmost coal port, located in the Great Barrier Reef World Heritage Area.

Climate Risks

The Carmichael mine will add (up to) 4.6 billion tons of CO₂e to the atmosphere. Coal expansion will drive further warming of the oceans, which increases the risk of extreme bleaching to Australia's multi-billion-dollar tourism asset, the Great Barrier Reef. It will cause an increase in shipping of coal carriers through the very sensitive Great Barrier Reef, with direct impacts on a resource of global significance.

Coal produced from Carmichael Mine is estimated to produce average annual emissions of 79 million tons of CO₂e are comparable to annual emissions from many countries, including Sri Lanka (57 MT CO₂-e); Malaysia (75 MT CO₂-e); Austria (76 MT CO₂-e); and Vietnam (104 MT CO₂-e).

Transition risks include the plummeting costs of renewable energy and the reduced coal demand from China combined with India's aggressive move towards energy self-sufficiency. These factors place new coal mines, and associated rail/port infrastructure investments, on shaky ground, increasing the risk of stranded assets. 17 major banks worldwide have stated they will not fund the Carmichael mine based on both its lack of economic viability and environmental impact.

Adani Group has a reputation for illegal dealings and corruption, according to Environmental Justice Australia.

Community Risks

No independent health impact assessments were carried out on the mine, despite recommendations by Doctors for the Environment Australia during the planning process. Air pollution will be a significant risk associated with coal transport at the Australian port terminal and along the rail corridor. Black Lung disease (coal workers pneumoconiosis) is an occupational hazard compounded by the lack of appropriate health protection of miners.

At more than five times the size of Sydney Harbor, as originally proposed, Carmichael would be the biggest coal mine in Australia and one of the biggest in the world. Covering 28,000 hectares of land on Wangan and Jagalingou indigenous groups, the mine would produce up to 60 million tons of coal every year and have an expected lifespan of up to 60 years. It is currently producing 10 million tons annually.

There are fewer than 12 people per square kilometer in the Galilee Basin. Clermont's population is 2177 persons. The indigenous heritage of the Galilee Basin is complex, with at least 12 Indigenous tribal or language groups in four separate language regions—Eyre, Gulf, Northeast and Riverine. There are native title claims covering large portions of the basin and several Indigenous Land Use Agreements in place. The project impinges on land claimed by seven aboriginal groups, the Wangan, Jagalingou, Jannga, Barna Kabalbara, Yetimaila, and Barada Barma. The project has advanced through the approval processes without their consent. The Commonwealth Native Title Act 1993 (NT Act) notifications process

triggered the 'Right to Negotiate' (RTN) process, a procedure between the proponent and native title claimants to negotiate over proposed future acts and management of land and waters.

A social impact assessment (SIA) was conducted by Adani in relation to the two major components of the project—the mine and rail component. It expressed difficulty predicting impacts with certainty over an extended period and has committed to an adaptive approach by which social impact mitigation and management strategies will be reviewed, monitored, and updated. The SIA was limited to the locations at which the construction, operation, and decommissioning of the project may have a social and cultural influence. Consultations with landholders identified concerns of reduced amenity from increased noise and dust, alterations to overland flow paths with the potential for increased ponding and flooding, restrictions of stock movements and increased labor requirements to manage cattle operations, impacts on drinking water supplies and groundwater, and increased fire risk along the rail corridor.

Environmental Risks

Carmichael Mine will drain 270 billion liters of groundwater in an arid region. It puts the aquifers of the Great Artesian Basin at risk of damage from pollution. Coal expansion will drive further warming of the oceans, which increases the risk of extreme bleaching to Australia's multi-billion-dollar tourism asset, the Great Barrier Reef. It will cause an increase in shipping of coal carriers through the very sensitive Great Barrier Reef, with direct impacts on a resource of global significance.

Risks Facing Adani Group

- The total capital investment planned by Adani for Carmichael Mine was A\$26.5 billion. After failing to secure finance they announced (Annex 1) that they would fund a scaled down A\$2 billion version using Adani's own resources. This would yield $\frac{1}{6}$ of the 60 million tons originally envisioned.
- The government of Queensland has agreed to subsidize the mine through a A\$5 million cap on royalties for 5 years (A\$ 271 million). The terms of the deal are secret, including the interest rate.
- Taking into account the full costs of the coal including the costs of GhG emissions that will impact Queensland, the direct environmental impacts to water and indigenous lands, and the risk of stranded assets, there is significant skepticism that this is a wise use of public resources, despite the lack of transparency in the full costs.

Risks Facing Investors and Lenders

- In March 2020, Fitch downgraded the Adani owned NQXT Abbot Point coal port 300 kilometers from the Carmichael mine port's investment grade debt to speculative debt, from BBB- to BB+, because the mine was unable to refinance \$410 million in short-term debt maturing September 2021. Instead, the Abbot point coal port refinanced itself via A\$270 million from a separate Adani entity, and then renamed itself North Queensland Export Terminal (NQXT). The NQXT is 100 percent owned by Adani itself. S&P then confirmed the North Queensland Export Terminal rating as speculative at BB- (negative outlook) because it may have "... to turn to its ultimate parent to provide shareholder loans and A\$100m in equity funding".

- Norwegian fund manager Storebrand excluded Adani Group, including Adani Enterprises, Adani Power, Adani Transmission, and Adani Ports & SEZ (APSEZ).
- 2021: A compliant to the U.S. Securities and Exchange Commission stated that bookrunners for Adani's Electricity, who has an ownership interest in the Carmichael mine, failed to disclose Carmichael mine and climate risks in their \$300 million euro-dollar sustainability-linked bond (SLB) issuance.

The \$300 million semi-annual 3.867 percent ten-year euro-dollar bond maturing July 22, 2031 has a step-up margin of 15 basis points if Adani Electricity's energy mix does not achieve 60 percent renewable power procurement by June 30, 2027 and the bond does not achieve an emissions intensity for its EBITDA of 60% by June 30, 2029. The bond is rated by Moody's Baa3 and by Fitch BBB-.

"If the new Carmichael coal mine build goes operational with ADANEM as a direct procurer of the mine's coal or indirect transmitter of electricity from other Group members being significant procurers, the coupon of the bond increases by 400 basis points."

The SLB was marketed with the second opinion by Vigeo Eiris that stated that Adani Electricity was not involved in controversial coal mining activities.

On July 21, 2021, Moody's owned Vigeo Eiris changed their statement after the bond was priced. Vigeo recorded that Adani Electricity was involved in two controversial activities: coal and fossil fuels. This was six days after the bond had priced and investors had already committed capital. Even after this Vigeo still did not disclose Adani Electricity's partial ownership and exposure to imported coal from Adani's Carmichael mine. Moody's Vigeo called the oversight an administrative error.

The SLB lead manager and structuring agent was MUFGE, with other managers including Axis Bank, Barclays, Citigroup, DBS Bank, Deutsche Bank, Emirates NBD, J.P.Morgan, Mizuho, and Standard Chartered.

The bond had significant demand and was oversubscribed securing \$2.7 billion in orders from 190 institutional investors.

Adani advertises its SLB as "... an SLB in line with COP26 goals"

Adani Electricity provides energy solutions and generates, transmits, and distributes electric energy. Adani Electricity Mumbai serves customers in India. Adani Electricity's The use of proceeds for the SLB were to increase Adani Electricity's purchase of renewable energy from 3% to 60% from 2019 to June 30, 2027. Failing this, the bond has a step-up on coupon rate of 15 basis points.

The key complaint to the U.S. Securities and Exchange Commission is that because Adani Electricity did not disclose its partial ownership in the Carmichael coal mine, many investors were opposed to investing in the mine did so unwittingly.

Furthermore, the key buyer of the coal generated by Adani from its Carmichael coal mine is for Adani owned coal-fired power plants.

- The Adani Group wants to rebrand as a leader in climate change and clean energy, yet is planning rapid expansion, funded by BlackRock, JP Morgan Chase, MUFG, and The State Bank of India. Many other financial institutions are declining to support the mine (see Table 1).
- Adani Group has a track record of legal entanglements, allegations of corruption, and claims of illegal exports, misleading financial statements, litigation surrounding environmental harm, and claims of failure to disclose. Five Adani Group companies in India, including Adani Enterprises Ltd, are under investigation by the Directorate of Revenue Intelligence (an Indian intelligence agency run within the Indian Ministry of Finance) for the use of ‘black money’ associated with inflating the quality, and hence the value of coal imported from Indonesia (the term ‘black money’ is associated with companies that manipulate expenses to gain tax advantages or launder money). Adani Group’s Australian corporate structure includes no less than 25 holding companies registered in Australia, some owned by Adani Enterprises, others owned by an Adani owned Cayman Islands entity, Atulya Resources Ltd.
- Adani is suing a prominent anti-mining activist alleging that his actions caused downscaling of the mine leading to increased capital costs per ton of coal produced and caused all Tier 1 contractors to abandon work on the mine, leading to contractor costs risking by 15 percent. Taken together with the fact that half of the top twenty banks financing coal declined to participate, this suggests that there is substantial risk in being associated with this development. Concerns have been expressed about water consumption and impact on water resources, reputational risks related to cultural heritage, the uncertain future of coal, the fact of GHG emissions, and the reluctance of businesses within the sector to engage suggest that there are substantial and probably undisclosed risks.
- 99 financial institutions publicly stated that they would not support the Carmichael mine (see Table 1).

Annex 1: Financial Institutions Declining to Support Adani’s Carmichael Mine

Table 1: 99 Financial Institutions Declining to Support Adani’s Carmichael Mine.

AJ Gallagher	Goldman Sachs	Generali	Lancashire Group	RSA Insurance Group
Commonwealth Bank of Australia	China Merchants Banks	China Construction Bank	Guardian Life Insurance	National Pension Service (Korea)
Allied World	Cincinnati Global	Liberty Mutual	MAPFRE	Santander
Helvetia Insurance Group	HDI Global (Talanx Group)	Hannover Re (including subsidiary Lloyd’s syndicate Argenta)	Industrial and Commercial Bank of China	SCOR (including The Channel Syndicate at Lloyd’s of London)
ANZ	CLSA	Hanwha Securities	Mirae Asset Daewoo	SEB
Apollo Underwriting	CNA Hardy	Citibank	Morgan Stanley	US Bancorp
Arch Capital Group	Commerzbank	AMAL Trustees	MS Amlin	SILC Group
Argo Limited	Allianz	Hiscox	Munich Re	Sirius Group
Ascot Group	Conduit Re	HSBC	NAB	Societe Generale
Aspen	Convex Insurance	Metrics	Samsung	Standard Chartered
Asta	Credit Agricole	BNP Paribas	Natixis	Suncorp
AXA	Credit Suisse	ING	JP Morgan Chase	Swiss Re
AXIS Capital	Dai Ichi Life	Investec	Newline Group	Tokio Marine

Bank of China	DBS	J. Safra Sarasin Bank	Nippon Life	Travelers
Bank of New York Mellon	Faraday (Lloyd's syndicate owned by Berkshire Hathaway)	Navigators Group (owned by The Hartford)	People's Insurance Company of China (PICC)	Sequoia Economic Infrastructure Income Fund
Barclays	ERS Insurance	KBC	Perpetual	Valex Capital
Beazley	Deutsche Bank	KIAMCO	PIMCO	Westpac
Industrial Bank of Korea	Korea Investment and Securities	Korea Development Bank	Korea Export Import Bank	Yuanta Securities Investment Trust
Brit	FIIG	QBE	Rabobank	Zurich
Canopus	FM Global	Fidelis	RBS	