

**BEFORE THE EXPERT PANEL APPOINTED
UNDER THE FAST-TRACK APPROVAL ACT 2024**

IN THE MATTER OF

**An application for approval under the
Fast-track Approval Act 2024**

BETWEEN

TRANS TASMAN RESOURCES LTD

Applicant

AND

**ROYAL FOREST AND BIRD
PROTECTION SOCIETY OF NEW
ZEALAND INCORPORATED**

Invited Person

**BRIEF OF EVIDENCE OF GLENN ADRIAN BANKS
ON BEHALF OF THE ROYAL FOREST AND BIRD PROTECTION SOCIETY OF
NEW ZEALAND INCORPORATED
(Economics)**

Royal Forest and Bird Protection Society of New Zealand
Solicitor Acting: [REDACTED]

[REDACTED]

[REDACTED]

BRIEF OF EVIDENCE OF GLENN ADRIAN BANKS

1. My full name is Glenn Adrian Banks. I am a Professor of Geography in the School of People, Environment and Planning at Massey University on the Manawatū campus.

QUALIFICATIONS AND EXPERIENCE

2. I have Honours and Masters of Science degrees in Geography from the University of Canterbury University, and a PhD in Geographical Sciences from the Australian National University, Canberra, Australia. I have worked as a researcher on, and consultant to the mining sector in the Pacific for over 35 years. Both my Masters and my PhD were on mineral development in Papua New Guinea. I have published more than 50 academic papers, chapters and books on aspects of large-scale mining in the Pacific and more generally. One of my co-authored papers (Ballard and Banks 2003 *Resource Wars: The anthropology of large-scale mining, Annual Review of Anthropology*) is the most cited social science paper on the mining sector. Initially my work focussed on the local socio-economic impacts and community development associated with large-scale mining.
3. In recent decades, alongside a continuing focus on the local and regional effects of large-scale mining in the Pacific, I have also been involved in policy work and discussions at the national and regional level, including leading a UNDP National Human Development report in Papua New Guinea that focussed on Translating mineral wealth into sustainable human development¹, and providing advice on mineral policy in the Solomon Islands and Fiji.
4. I have also completed over 20 major consultancy reports for the mining industry in the Pacific on social and economic aspects of their operations, including social impact assessments, social baseline studies, social monitoring, risk assessments, inward migration plans, human rights and resettlement.
5. I am a recipient of the 2020 New Zealand Geographical Society Distinguished Geographer medal, the President of the Manawatū Branch of the New Zealand Geographical Society, and Committee member on the Manawatū branch of the Royal Society of New Zealand.

¹ Papua New Guinea National Human Development Report 2014: From Wealth to Wellbeing: Translating Resource Revenue into Sustainable Human Development. UNDP: Port Moresby and New York, <https://hdr.undp.org/content/papua-new-guinea-national-human-development-report-2014>

6. I have read the Environment Court's Code of Conduct for Expert Witnesses as set out in the Practice Note 2023. I have prepared my evidence in accordance with it.
7. I have considered the following documents when preparing my evidence:
 - (a) Economic Impact assessment of TTRL's Taranaki VTM Iron Sands Project. NZIER (March 2025) (the NZIER Report); and
 - (b) Social Impact Assessment of Trans-Tasman Resources Ltd Iron Sand Mining Project. Corydon Consultants (2016, re-issue of 2013 report).

SCOPE OF EVIDENCE

8. I have been asked to provide evidence on the application by Trans-Tasman Resources Ltd for fast-track approval for a seabed mining operation in the South Taranaki Bight (the seabed mining operation and the application). In particular, I have been asked to give evidence on
 - a. the national and regional benefits of the seabed mining operation for which approval is sought;
 - b. the benefits to New Zealand of the mining.
9. I have been advised that these are matters that the Expert Panel has to assess when deciding the application under section 53(5) and Clause 6 of Schedule 10 of the Fast-track Approvals Act 2024 (FTAA).

NATIONAL AND REGIONAL BENEFITS

10. Section 81(4) of the FTAA provides that

When taking the purpose of this Act into account under a clause referred to in subsection (3), the panel must consider the extent of the project's **regional or national benefits**.

11. Section 85(3) provides

- (3) A panel may decline an approval if, in complying with section 81(2), the panel forms the view that—
 - (a) there is one or more adverse impacts in relation to the approval sought; and
 - (b) those adverse impacts are sufficiently significant to be out of proportion to the project's **regional or national benefits** that the

panel has considered under section 81(4), even after taking into account—

12. This section of my evidence focuses on the assessment of regional or national benefits attached to the application.
13. I do this by describing how the Applicant has assessed the national and regional benefits, which was done through the NZIER Report. I then assess whether this approach captures the full extent to which economic value and benefits are assessed and captured by the Applicant's modelling.
14. In summary, the evidence presented does not demonstrate stable, reliable economic flows of benefits at regional or national scales and certainly not in proportion to the estimated value of the mineral resource being exploited.

Assessing Regional and National Benefits

15. There is no specific definition of significant regional or national benefits in the context of listed projects under the FTAA. This makes the assessment of regional and national benefits more difficult. In the case of TTR it is clear that the Applicant sees only *economic* benefits, and hence in the evidence below I assess these purported benefits relative to their regional and national contexts.

The NZIER Model

16. The Applicant sought advice from NZIER on how to assess the local, regional and national benefits of the application. NZIER used a standard economic Input/ Output model to provide this advice.
17. The model used by NZIER has been widely critiqued as being insufficient to capture the full range of net economic costs and benefits of such proposals². The standard Input/Output model applies a standard set of multipliers, derived from national input/output tables to project economic inputs (such as operating costs and employment) to estimate broader indirect and induced economic effects at regional and national levels.

² see Australian Bureau of Statistics 2002, Input-Output Multipliers <https://www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/5209.0.55.001Main%20Features42009-10> ; Counsell, K., 2024, "Improving economic analysis in environmental decision-making: a tale of two coal mines", *Resource Management Journal*, August.

18. The local level effects as detailed in the NZIER are not included in s 81(4) and 85(3) of the FTAA , which refer to the ‘regional and national benefits’ that adverse effects need to be assessed against.
19. Input/ Output models are widely regarded as a poor tool for the assessment of project effects as they tend to overstate the impact of a specific stimulus on measures such as employment and expenditure’³. This is so widely understood that the Australian Government stopped producing multipliers in 2002, as they were regarded as being ‘based on limiting assumptions that results in multipliers being a biased estimator of the benefits or costs of a project.’⁴
20. The New Zealand Treasury in 2005 stated that Input/ Output modelling used in Economic Impact Assessments ‘can provide useful contextual information for decision-makers, but it is not suitable as a tool for measuring the balance of costs and benefits of a decision to society.’⁵
21. In addition to these concerns with the use of the NZIER model to calculate the project regional and national benefits, I consider the assumptions that underpin the data the model uses, and the implications of the results of the modelling are also inadequately detailed. These deficiencies seriously undermine the credibility of the purported economic benefits at regional and national levels described by NZIER.
22. My evidence covers four issues.

The overall benefit to the country from the Capital Investment phase is very low:

23. The total capital expenditure (CAPEX) for the seabed mining operation is \$1 billion.⁶At present this CAPEX is to comprise Foreign Direct Investment (FDI) – investment from outside New Zealand. This is heralded as a significant benefit *in itself* by the applicant.
24. However, only 5% of the CAPEX (around \$55 million) will be spent within New Zealand. This is because the bulk of the investment is highly specialised capital equipment (the offshore barge, support boat, helicopters, and the two ‘seabed crawlers’ all of which attract high rates of

³ Counsell, K., 2024, “Improving economic analysis in environmental decision-making: a tale of two coal mines”, *Resource Management Journal*, August, p.3.

⁴ Australian Bureau of Statistics 2002, Input-Output Multipliers

<https://www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/5209.0.55.001Main%20Features42009-10>

⁵ Treasury, 2015, *Guide to Social Cost Benefit Analysis*, July, at p. 39.

⁶ NZIER 2025: 1

depreciation) that are not able to be manufactured in New Zealand. Hence around two-thirds of the capital investment spend occurs in Asia – and especially China - and the rest in other parts of the world.

25. In terms of the regional impact of the \$55 million CAPEX within New Zealand, NZIER shows this adds just 0.1% to the regional economy and 0.8% to regional employment. The National impact of this CAPEX on GDP is even lower, to the point of material and statistical insignificance.
26. In this context it is noteworthy that the full \$1 billion capital spend will be eligible for the new Investment Boost – the tax deduction introduced in 2025 for all businesses which allows them to claim 20% of the cost of new assets as an expense, and still claim depreciation as usual on the remaining 80%.
27. The result of this is that a higher share of the total capital investment will not be subject to the standard taxation regime, and hence taxation payments to the country will be lower than they would have otherwise been. This change is not reflected in the NZIER analysis.

The use of aggregate average does not capture the reality of the long-term economic effect of the project

28. The economic benefits in the NZIER report are couched as aggregate averages over the life of the project – simply summing the estimated operational costs, taxes, royalties etc over the life of the project, and dividing this by the project life, currently 20 years. In reality, such smoothed averages have been demonstrated to be relatively meaningless in the mining sector which is subject to high volatility in pricing for the commodities it produces.
29. The NZIER report acknowledges the volatile nature of commodity prices and includes graphs that illustrate this for iron ore and vanadium, but they confine their analysis of this to looking at the sensitivity of revenue and royalty projections.
30. The headline figures are all based on ‘long-term average’ commodity prices, average exchange rates and stable operational costs (such as fuel). Historical and on-going Exploration and Development costs (E&D) are also able to be offset against assessed taxation payments, meaning actual tax paid can be reduced significantly by the initial (and on-going) exploration and mine development costs. Domestic and overseas experience indicates that estimates based on stable commodity and operational costs can

significantly underplay the variability of all these factors in the mining sector. Importantly, these will dramatically impact on the profitability of the operation year on year, and from this the taxation return to the government and the country from the mine.

31. The example of OceanaGold – New Zealand’s largest gold producer – over the period 2020-2024 illustrates the extent of this clearly. Over this period their corporate income tax – on exports of over NZ\$500 million annually - varied from \$0 in 2021 and 2023, to US\$1.9m in 2022, US\$5.9m in 2024, and US\$22m in 2020⁷. In other words, the actual taxation contributions during mining operations will vary significantly through time and are likely, given the recent taxation record of large-scale multinational miners in New Zealand, to be considerably less (even \$0) annually than what the NZIER figure suggests.
32. There is also a very dramatic example from a decade ago from Papua New Guinea – PNG - (a nation with a significantly larger oil, gas and mining sector than New Zealand) where four years of record mining, oil and gas production and exports (2014-2017) – a doubling over that period - was accompanied by the lowest tax take in over 3 decades. This occurred for a range of operational and global commodity market reasons⁸.
33. New Zealand is not an extractives dependent resource economy like PNG, but what it highlights is that there is huge annual variability in the potential distribution of economic value and benefits from natural resources.
34. In this context, it is worth remembering that New Zealand, as a country, bears significant risks in terms of securing a fair and stable return from these mineral resources.
35. The risk lies in the vast bulk of the value of this mineral resource, a Crown resource (or taonga) that belongs to the people of Aotearoa New Zealand, being mined by overseas investors and suppliers with, in some years, only a small percentage of its value accruing to New Zealand.
36. The NZIER report also does not discount of the future value of the economic contribution to allow for inflation – hence the values of taxation and royalty payments provided do not illustrate the declining value of these amounts through time.

⁷ All figures from OceanaGold’s Extractive Sector Transparency Measures Act (Canada) Annual Reporting, available at <https://investors.oceanagold.com/annual>

⁸ Banks, G. and M. Namorong (2018) Papua New Guinea’s disappearing resource revenues. *Development Policy Blog*: <https://devpolicy.org/papua-new-guineas-disappearing-resource-revenues-20180815/>

Increase in Employment modest

37. The projected labour requirements show modest numbers of additional jobs that the project will produce. This is a consequence of the capital-intensive nature of the industry.
38. But even the modest regional and national employment increase is questioned by the Social Impact Assessment which states, ‘because of the specialised skills that will be required for most positions’ the new jobs are unlikely to reduce unemployment levels either locally or more widely.⁹
39. This means that the local and regional employment effects will be muted as many/most of these ‘local’ jobs will be FIFO/DIDO for employees-based elsewhere in the motu, or even offshore.

Assessment of operational phase national and regional benefits

40. In terms of the assessment of the economic benefits of the project at Regional and National levels from the operational expenditure (OPEX), and recalling from above that the type of model used overestimates the direct, indirect and induced economic and employment effects as well as their variability, the overall contribution demonstrated by NZIER is still low.
41. At the Regional (Taranaki/ Whanganui) level, NZIER estimates economic GDP contributions of \$222 million which is just 0.8% of the existing GDP of the region. By way of context, the *variation* in dairy sector income in Taranaki between the 2023/24 and 2024/25 seasons was around \$427 million – almost twice the purported annual contribution of TTR¹⁰.
42. Direct, indirect and induced employment from the operational phase is estimated at 1,123 at the Regional level – or 1.5% of the existing workforce. At best, these purported employment benefits are likely to be modest, rather than significant, in the context of the existing regional economy.
43. At the National level, again given all the caveats on the numbers outlined above, even the NZIER operational phase benefits do not indicate ‘significance’ – a 0.07% addition to GDP and a 0.05% increase in employment. These figures are effectively well within a ‘margin of error’ in terms of estimates of the GDP and employment of the country.

⁹ Croyden Consultants (2016). *Social Impact Assessment of Trans-Tasman Resources Ltd Iron Sand Mining Project*. p.40.

¹⁰ Informetrics (2025) *Quarterly Economic Monitor – Taranaki March 2025*.
https://www.venture.org.nz/assets/Uploads/Venture-Taranaki/Quarterly-Economic-Monitor_Taranaki-region-2025-03.pdf

BENEFITS TO NEW ZEALAND

44. Section 59 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 provides:

59 Marine consent authority's consideration of application

- (1) This section and sections 60 and 61 apply when a marine consent authority is considering an application for a marine consent and submissions on the application.
- (2) If the application relates to a section 20 activity (other than an activity referred to in section 20(2)(ba)), a marine consent authority must take into account—

(g) the **economic benefit to New Zealand of allowing the application**; and

45. I am advised by counsel that the economic benefit to New Zealand of allowing the application is a matter that the Expert Panel has to consider under Clause 6 of Schedule 10 of the Fast-Track Approval Act 2024.

46. This section of my evidence focuses on the assessment of the economic benefit to New Zealand of allowing the application.

47. There is an overlap with the issues discussed above.

48. My evidence covers four issues:

- a. The overall benefit to the country from the Capital Investment phase is very low;
- b. Benefits to New Zealand unlikely to be as stable and consistent as NZIER predict;
- c. The share of the value of the resource; and
- d. Titanium dioxide.

49. I now address these in turn

The overall benefit to the country from the Capital Investment phase is very low:

50. As I noted above, just over 5% of the total capital spend (\$1billion) will be spent within New Zealand. This analysis is the same as above and is not repeated.

Benefits to New Zealand unlikely to be as stable and consistent as NZIER predict

51. In operational terms, international experience highlights that the purported benefits to New Zealand are highly unlikely to be as stable or consistent as the NZIER shows. This is because of the variability and volatility of revenues (and costs) that the operation will experience. This has also been discussed above.

The share of the value of the resource

52. Another way of discussing the benefits to the country is to consider the proportion accruing to New Zealand of the economic value of the resource based on the proponent's estimate of the total export value of the mined resource. Although this proportion is not provided in the NZIER report, there are a couple of ways of calculating this using the figures provided in the report:

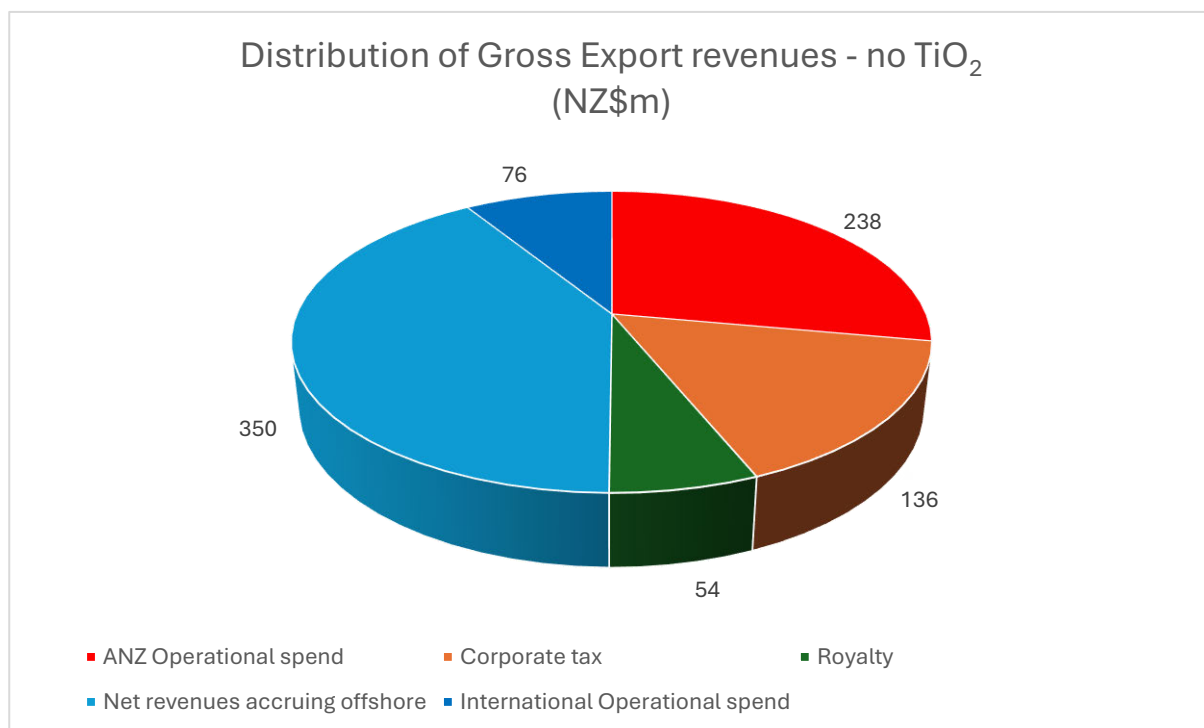
53. First, the chart (Figure 7, p.18) of estimated royalty contributions to the government shows that a 10% royalty on net earnings before tax is worth \$54 million, which indicates that total net, pre-tax earnings are \$540 million.

54. From the estimated revenues (\$854 million in exports), it is stated that \$238 million will be the NZ operational spend. If the net, pre-tax earnings reflect NZ + international operating costs, we assume that the international component of the operational spend is around \$76 million (which is close to the NZIER estimate that 72% of the operational spend will occur in New Zealand).

55. Deducting both the higher corporate tax figure estimate given (\$136 million) and the higher royalty estimate (\$54million) from the \$540 million net earnings before tax leaves \$350 million annually that comprises the total international component of the net revenues that will accrue offshore. Adding the international share of the operational costs from above (\$76 million) to this figure gives \$436 million which will accrue offshore from the export value of the resource (\$854 million).Figure 1, below, provides a graphical representation of this distribution, with the blue slices being the

(very conservative) estimate of the offshore share of the total export revenue:

56.

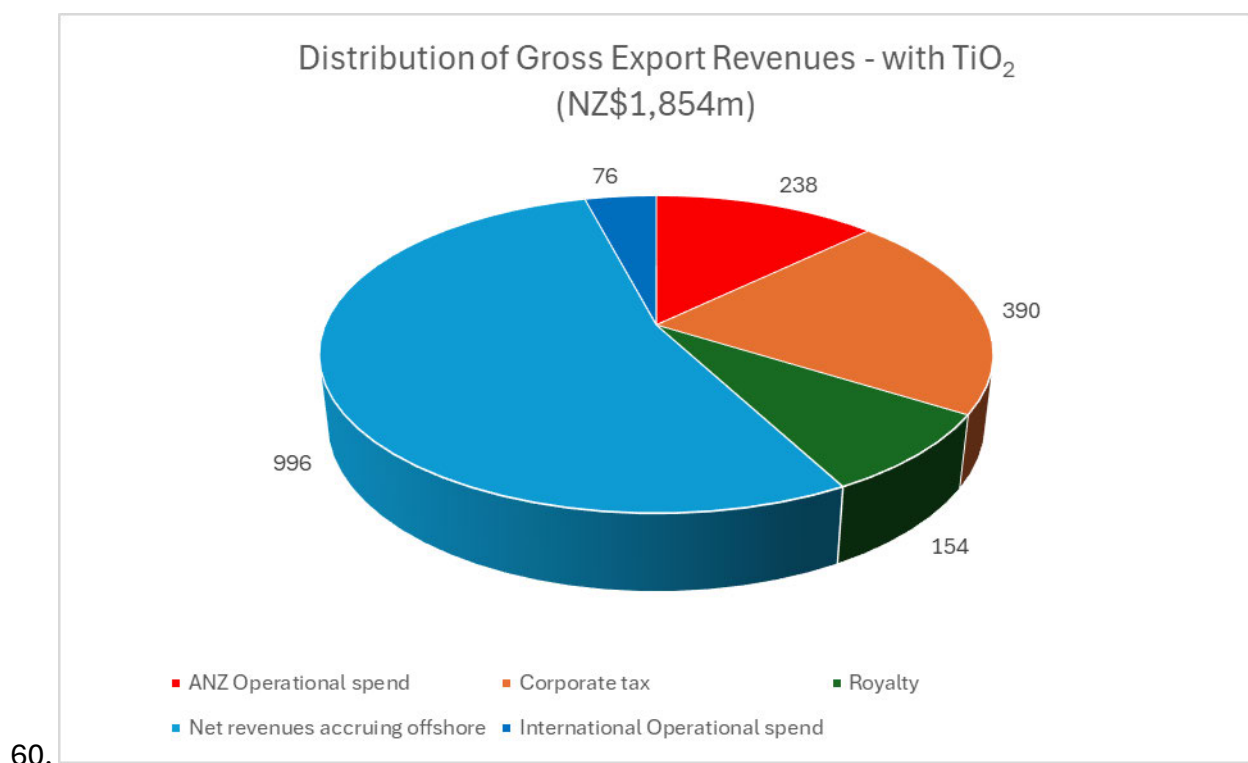


57. By the proponents own (very conservative and subject to high variability) estimates, then, a minimum of 50% of the value of the mineral resource accrues offshore annually from the operation. Given the discussion above (and especially the effects of the Investment Boost), and what we know of the mineral sector, this figure could be much higher year on year. This analysis is reinforced by statements from the applicant on its website that the TTR will be one of the lowest cost iron-ore projects globally ('outstanding economic metrics'): the implication here is that the returns to the foreign investor will be among the highest globally.

58. In terms of benefits to New Zealand, this indicates that even by the proponents own most conservative figures, we (Aotearoa New Zealand) would only receive a marginal share of the economic benefit of this non-renewable resource. Further, the critique of the proponent's analysis and report that I have provided above would indicate that even this figure is almost certainly too high, highly uncertain and highly variable year on year: we are at risk of effectively giving away the bulk of the economic value of our non-renewable resource to overseas interests.

Titanium dioxide

59. A perplexing and confounding factor here is that Titanium dioxide (TiO₂) is excluded from the economic calculations (p. 18). The report estimates there will be revenue credits (sales) for an estimated 327,000 tonnes of TiO₂ annually in the existing concentrate, but the value of these is not included in the report. Even at a low price of around \$US2,000/t this would contribute up to NZ\$1 billion revenue. Given that it is already included in the concentrate, there would be no additional costs associated with these credits, and hence they would add directly to TTL's net pre-tax earnings. Again, the bulk of this would be transferred offshore too, with perhaps just 10% captured by the royalty regime and a highly uncertain amount through corporate income taxes. The highest this could be would be around an additional \$250m but this would be a highly unlikely estimate given the above discussion: the actual figures, year on year, would vary but all would be significantly below this. See Figure 2 below, with the blue slices again representing the offshore share of the total export revenue, using the most optimistic figures of royalty and corporate income taxes.

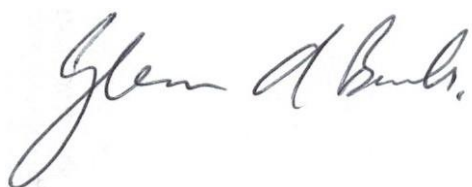


CONCLUSION

61. In sum, the economic contribution and benefits at National and Regional levels from the seabed mining project are overstated: the benefit to the country is highly unlikely to be as significant, or as consistent annually as

the NZIER report shows. This is because of the ways in which the modelling used has been shown to consistently overstate the broader economic benefits of projects (in terms of GDP contributions and employment), the lack of discounting of the values through time, and the lack of recognition of the specific volatility that the mining sector has been shown to exhibit in terms of economic contributions.

62. Even if the overstated economic contributions are used, the purported benefits themselves cannot be regarded as 'significant' at the regional level (additions of just 0.8% of the existing GDP of the region and 1.5% to the existing regional workforce). The economic benefits in the NZIER report become a statistical irrelevance at the National level – around half of a tenth of a percent (0.07% addition to GDP and a 0.05% increase in employment).
63. Despite the appearance given by the Applicants, neither the impressive sounding Capital Investment figure nor the huge export values (which are potentially massively understated due to the inexplicable absence of TiO_2 from the economic calculations) are additional 'benefits' to the country. Both of these are effectively included in the combination of international outflows (dividends and international capital and supplier costs) and the domestic spend figures. Hence conflation of Foreign Direct Investment, capital inflows, and exports with 'benefits' is effectively double-counting of the economic impact / contribution of the project.

A handwritten signature in black ink, reading "Glenn A Banks". The signature is written in a cursive, flowing style.

Professor Glenn Banks
6 October 2025