

**Submission**

**By**

**THE  
NEW ZEALAND  
INITIATIVE**

**to the Ministry for the Environment and the Ministry for  
Primary Industries**

**on**

**the Discussion Document  
Managing exotic afforestation incentives**

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## 1 INTRODUCTION AND SUMMARY

- 1.1 This submission in response to the Ministry for the Environment and Ministry for Primary Industry's Discussion Document *Managing exotic afforestation incentives*<sup>i</sup> is made by The New Zealand Initiative (the **Initiative**), a think tank supported primarily by major New Zealand businesses. In combination, our members employ more than 150,000 people.
- 1.2 The Initiative undertakes research that contributes to the development of sound public policies in New Zealand and the creation of a competitive, open and dynamic economy and a free, prosperous, fair and cohesive society.
- 1.3 The Initiative's members span the breadth of the New Zealand economy, including companies that purchase and relinquish ETS credits. However, the views expressed in this submission are the views of the author, not those of our members.
- 1.4 The Document proposes not awarding carbon credits through the ETS for permanent exotic forestry planting, despite the carbon sequestered in such forests, because of other perceived problems resulting from exotic forestry planting.
- 1.5 In summary, we submit:
  - (a) The ETS is and should remain focused on driving reductions in net emissions, in line with the requirements of the Zero Carbon Act.
  - (b) Additional policy objectives, whether achieving biodiversity goals or mitigating effects of local land-use changes, require additional and separate instruments.
  - (c) Attempting to shoehorn additional objectives into the ETS by tweaking ETS settings risks worsening the ETS's performance in reducing net emissions while providing suboptimal responses to additional identified policy problems.
  - (d) Substantially changing or removing the 'permanent post-1989 forest category' only two years after it was introduced worsens New Zealand's reputation as a safe place to do business. If policy regimes change this quickly and with this little justification, investors will demand a higher risk premium for investing here, further increasing the cost of capital in a capital-shallow country.
  - (e) Better solutions to the identified policy problems are available, pose less risk to the ETS and to New Zealand's institutional credibility, and stand a better chance of improving outcomes.

## 2 TINBERGEN'S RULE APPLIED TO CARBON

### Tinbergen's Rule

- 2.1 Economist Jan Tinbergen, in 1952, argued that policymakers need at least as many policy instruments for affecting outcomes as they have outcomes they wish to target. When the number of targets exceeds the number of instruments being used to achieve those targets, solutions will wind up being incompatible with each other, and the set of solutions will be inconsistent.<sup>ii</sup>
- 2.2 The primary instrument for reducing net carbon emissions is the Emissions Trading Scheme. It is uniquely targeted at reducing net emissions.
- 2.3 Rising carbon prices can result in any number of emergent problems that had not been anticipated when the ETS was set.

- 2.4 If additional problems emerge that require addressing, Tinbergen’s Rule suggests that additional tools are needed to solve each additional problem. Attempting to solve secondary problems by modifying the primary instrument will either result in reducing the primary instrument’s efficacy in addressing its target, in far-from-adequate targeting of secondary problems, or both.
- 2.5 To put it simply, policy should not be required to hit multiple birds with the same stone. The single stone is likely to cut a path between the two birds, missing both. When multiple stones are entirely possible, multiple stones should be employed.
- 2.6 The Emissions Trading Scheme is designed to mitigate net carbon emissions. Rising ETS prices have resulted in situations that some have viewed as undesirable.
- 2.7 We urge that the Government consider Tinbergen’s Rule and take the opportunity to build instruments targeted directly at the identified problems, rather than reduce the ETS’s effectiveness in targeting net emission reductions.

### **3 PROBLEMS IN RISING CARBON PRICES, AND BUILDING BETTER SOLUTIONS**

- 3.1 The Document identifies several outcomes of afforestation consequent to rising ETS prices that Government views as undesirable – or at least Ministers writing the foreword to the Document have identified as political issues.
- 3.2 It was not that long ago that Government viewed *insufficient* tree planting, both native and exotic, as a substantial potential problem.
  - 3.1.1 In 2017, the Government issued a Ministerial Directive Letter to the Overseas Investment Office encouraging overseas investment in forestry that advances the Government’s forestry-related strategies, including the Billion Trees Planting Programme.<sup>iii</sup> At the same time, the Rural Land Directive made overseas investment in non-forestry rural land more difficult. As consequence, overseas investors wishing to own rural land in New Zealand had strong government-provided incentive to use that land for forestry. It would be more difficult to purchase non-urban land of over 5 hectares unless that purchase came with a promise to turn that space into a forest.
  - 3.1.2 In 2018, the Government set the One Billion Trees Fund to encourage more tree-planting. By 30 June 2021, the programme had funded the planting of just over 48 million trees, about thirty percent of which are of exotic species.<sup>iv</sup>
- 3.2 Having first strongly encouraged rural land to turn into forests by directly subsidising tree-planting through the Billion Trees Programme and by channelling overseas investment interest in rural land into forestry conversions, the Government now sees excessive afforestation as a policy problem substantial enough to warrant violence against the Emissions Trading Scheme.
- 3.3 High ETS prices will also have contributed to greater levels of afforestation, but so too will rising expectations of regulatory action. If the owner of a piece of land suitable for forestry conversion viewed it as best to proceed with forestry conversion in a decade’s time, waiting has increasingly carried with it risk that government might legislate against forestry conversion. Anticipation of regulatory action can bring forward the outcome that regulation seeks to avoid. It may then be an error to base forecasts of future afforestation on current responsiveness of forestry conversions to ETS prices. At least some current planting will be seeking to get in ahead of potential restrictions on future awarding of credits.

## Suggested Harms

- 3.4 The Document suggests that:
  - 3.4.1 afforestation at scale or concentrated in particular areas “can work against the economic and social outcomes sought by those communities.”
  - 3.4.2 large-scale afforestation encouraged by high carbon prices can lead to expectations of lower price paths for carbon than would otherwise be the case, which can discourage reductions in gross emissions
  - 3.4.3 permanent plantings of exotic species imposes risk on neighbouring properties if inadequately managed: animal pests, disease, fire, wilding conifer spread, and land instability for plantings on steep, erosion-prone land.
- 3.5 To the extent that any of these are problems, none of them are best addressed by forbidding a viable form of carbon sequestration from generating credits in the Emissions Trading Scheme.
- 3.6 Let us take each in turn.
- 3.7 Issue 1: “It will drive land use change and displace productive land uses that provide wider economic and employment benefits.”**
  - 3.7.1 For sake of argument, I assume that the Document is correct and that plantation forestry conversions would reduce the number of local jobs.
  - 3.7.2 Forestry conversion only happens if the land owner expects higher returns in forestry, including the value of any generated carbon credits, than in other uses of that land.
  - 3.7.3 Changes in land use, or in business activity in general, that result in changes in employment can be a matter of public policy concern, but this traditionally has focused on ensuring suitable transition pathways for displaced workers and suitable retraining programmes.
    - 3.7.3.1 If changes in employment resulting from a potential land use change instead justify using policy to prevent land use change, the implications could be rather broad. For example, mechanisation and automation in agriculture and horticulture should be opposed if it results in reduced employment. And forestry for logging could require the use of axes rather than chainsaws.
  - 3.7.4 Effects on local communities can be very real. For communities where declining population has meant reduced viability of local service providers, or the threat of local school closure, these threats can be daunting.
  - 3.7.5 Setting national-level rules to address problems that may arise in very localised circumstances is a mistake, whether that national-level change is implemented through the ETS or through other national-level regulation.
  - 3.7.6 Localised effects should be amenable to targeted local solutions. Ideally, those solutions would focus on easing transitions.
  - 3.7.7 In what would hopefully be a very small number of localised cases, councils could be under great pressure to restrict forestry conversions because of localised employment effects. In those cases, restrictions against conversions should be accompanied by appropriate compensation of affected landowners for the regulatory taking. Councils should not be in the habit of using consenting practices in this way. Consents for forestry for lumber should not require the use of axes rather than chainsaws to boost local employment.
  - 3.7.8 Allowing local councils to address local land use issues, with potential for local land use planning restrictions in extreme cases, allows permanent carbon forestry to be restricted in

times and places where such restriction may be appropriate, but allowed in places where local communities view the trade-off as reasonable. It also allows the ETS to remain focused on its primary target: net carbon emissions.

### **3.8 Issue 2: It may make it harder to achieve our long-term climate change targets**

- 3.8.1 The Document suggests that current afforestation, driven by high current ETS prices, will provide weaker incentives for investment in technology that reduces gross emissions. Generating carbon credits reduces ETS prices relative to a counterfactual path for those prices.
- 3.8.2 The Zero Carbon Act sets a net emissions target, not a gross emissions target.
- 3.8.3 The Document here sets a strong preference for gross reductions over net reductions. The climate does not care whether a tonne of CO<sub>2</sub>-e fails to be emitted or whether a tonne of CO<sub>2</sub>-e is sucked from the atmosphere by a tree. If it does, that would point to a problem in the measurement of carbon sequestered by trees that could usefully be addressed. Otherwise, using policy to force adjustment through gross emission reductions will increase the cost of reaching Net Zero without providing environmental benefits.
- 3.8.4 The extent to which afforestation affects longer-term incentives will depend on expectations around the total volume of NZU that governments might issue between now and 2050 and expectations about the time path of technological change. If fewer NZU are issued by governments on the path to net zero, expected carbon prices will be higher even with forestry conversions.
- 3.8.5 Rather than see afforestation as a threat to net zero goals, the government could see forestry planting as a low-cost sequestration technology enabling it to reduce the total volume of ETS credits it might issue between now and 2050.
- 3.8.6 Several commentators have suggested that allowing current afforestation would put net zero at risk beyond 2050, based on a misreading of Figure 6.4 in *Ināia tonu nei: a low emissions future for Aotearoa*.<sup>v</sup> It is worth briefly noting what that Figure, and the analysis underpinning it, does show.
  - 3.8.6.1 At Figure 6.4, the Climate Change Commission's report presents the modelled effects of a carbon price fixed at \$50 with no restrictions on tree planting prior to 2050, but with restrictions on tree planting after 2050. The ETS is not in that model, nor is any binding cap on net emissions. As consequence, a \$50 fixed price on carbon leads to an increase in net emissions after 2050. But New Zealand does not have a \$50 carbon tax. It has an Emissions Trading Scheme with an expectation of no new government-issued credits from 2050 onwards.
  - 3.8.6.2 That scenario depends on a fixed price on carbon, and the absence of an ETS cap. After 2050, if the government maintains a cap consistent with net zero, and bans forestry planting after 2050, net emissions would not rise. Carbon prices would rise instead.
  - 3.8.6.3 In reality, tree planting from now through 2050 would bid up the price of land suitable for forestry. If Councils have discretion to limit forestry conversions, some may decide to impose limits as afforestation increases; others may decide to lift limits as rising carbon prices increase the opportunity cost of those restrictions. Expectations around the future supply of land suitable for forestry conversion, about opportunities for offshore mitigation, and about the path of prices for other technologies that might reduce net emissions would drive futures prices for carbon credits and consequently investment decisions around reducing gross emissions.
- 3.8.7 Restricting forestry conversions necessarily makes it harder to achieve the government's net emissions target. Legislation sets a target for net emissions, not gross emissions.

Removing one option for achieving the net emissions target forces adjustment to happen through higher cost channels.

- 3.8.8 Pushing up the price of carbon, by forbidding permanent forestry planting, adds substantial political risk. The government's fuel excise holiday has demonstrated political sensitivity to rising energy costs. In the absence of a carbon dividend rebating government ETS revenues back to households and mitigating distributional consequences of rising carbon prices, it is especially risky to force reductions in net emissions to work through more costly channels.
- 3.8.9 The proposal also adds fiscal risk for the government. The current backed-unit mechanism supporting the price cap requires the government to back additional units released at the price cap with equivalent net emission reductions elsewhere. The government has considered forestry planting on Crown land as one option. A mechanism is needed to ensure that the planting credibly backs the units. The most obvious mechanism would be to have that planting generate ETS credits which are then surrendered immediately as backing for the units released at the price cap. That would put those credits into the standard monitoring framework around forestry planting. If the government is precluded from permanent forestry planting as backing mechanism at the price cap, its costs in backing units at the price cap will increase.
- 3.8.9.1 The government should consider reforming the price cap so that rather than following a nominal price anchor, the price cap instead tracks average prices in credible emission trading schemes overseas. The government should purchase and retire units in those systems to back units released at the price cap. In that way, the price cap would no longer introduce fiscal risk. If ETS prices abroad are lower than prices would be here, it also provides the most cost-effective mechanism for credibly reducing net emissions by opening up more options. And if even more cost-effective credible opportunities for offshore mitigation exist, those too should be taken up by the government at the price cap.

### **3.9 Issue 3: Widespread permanent exotic afforestation has environmental impacts**

- 3.9.1 The Document warns that permanent exotic forests, if poorly managed, carry longer-term environmental risks including fire, disease, wilding conifer spread, and instability on some slopes.
- 3.9.2 Banning permanent exotic forests is a very silly way of addressing those very real potential environmental concerns. It manifestly fails to solve any of the real problems.
- 3.9.3 Production exotic forests also carry risk of fire, disease, wilding conifer spread, instability on some slopes, along with risk from mismanaged slash.
- 3.9.4 The risks identified are risks that can and should be managed by councils. They are broader than the risks imposed by permanent forests – they extend to planting conifers for logging. They are also broader than the risks imposed by any kind of forest: poorly managed land can lead to all kinds of problems for neighbours. Farmers regularly complain of severe mismanagement of Crown land leading to pest infestation and spread of weeds.
- 3.9.5 Land use planning and monitoring against risky mismanagement are the more direct ways of mitigating the identified risks. Councils could choose to make exotic forests a consented activity if they viewed the risks as high and in need of more direct supervision. Councils would be best placed to make these decisions.
- 3.9.6 Ensuring that regional councils are doing their job in monitoring against these kinds of problems should extend beyond recently planted exotic forests.
- 3.9.7 Planting in native trees rather than exotics may provide biodiversity benefits. To the extent that it does, we return to Tinbergen's rule. It is better to subsidise that benefit directly, through its own instrument, rather than ban exotic permanent forests from the ETS.

- 3.9.8 The government could estimate the per-hectare value of biodiversity benefits of native tree planting and directly subsidise landowners who might be encouraged to plant in native trees. In some places, the carbon benefits of exotics will still outweigh the combination of the carbon benefits of natives plus the biodiversity benefits of natives; in other places, natives would wind up on top. Maintaining a clean payment for carbon sequestration through forestry in combination with a direct subsidy matching the biodiversity benefits of natives would allow discovery of which trees are right in which places.
- 3.9.9 If the government decides to reduce the risk imposed by permanent exotic forests by discouraging their planting by putting a heavy thumb on the ETS's carbon calculations, it will have hindered our climate response while doing nothing about similar risks imposed by timber forests, or mismanaged land more generally. It does not solve the identified environmental problems while making it more difficult to reach net zero. Appreciation of Tinbergen's Rule would avoid these kinds of issues.

#### **4 ADDITIONAL CONSIDERATIONS**

- 4.1 Almost three decades stand between us and 2050. As the ETS cap tightens and carbon prices rise, all kinds of new and interesting problems will be discovered. It is impossible to today predict what they might all be. But we can today set a precedent for how we deal with them.
- 4.2 Some problems that emerge may directly relate to how carbon and CO<sub>2</sub>-e is measured. In those cases, ensuring appropriate accounting is critical. Those may require adjustment to how forestry credits are calculated. It is right and proper that these numbers are as accurate as possible.
- 4.3 We may also discover new mechanisms that are needed for ensuring the continued credibility of carbon credits. There will undoubtedly wind up being problems in ongoing audit of whether trees have been cut down, and how surrender obligations might be enforced on the owner of a forest that has been caught in a fire. Staying on top of all of these, and new issues that emerge, will be critically important.
- 4.4 Other problems may be the result of the proper operation of the ETS. As carbon prices rise, new things may be incentivised that have deleterious external effects. It is impossible now to predict what they all might be. But we can decide to address problems that are not related to carbon through mechanisms other than the ETS.
- 4.5 The Tinbergen Rule suggests maintaining the ETS as cleanly as possible as mechanism directly targeted at net emissions and using additional instruments outside of the ETS to address additional problems as and where they emerge.
- 4.6 Following the Tinbergen Rule would mean tailoring solutions directly addressing new problems rather than revisiting ETS calculations, or what is allowed into the ETS, whenever those problems emerge.
- 4.7 Tailoring solutions specific to identified problems means that policy is not trying to kill multiple birds with the same stone, and has far greater chances of success in dealing with each problem. There may be other branches or levels of government already tasked with dealing with those kinds of problems. Letting those problems be addressed by the part of government already best suited to dealing with them may be advisable.
- 4.8 Re-jigging the ETS whenever someone identifies a potential problem resulting from higher ETS prices introduces arbitrariness into what should be our primary instrument for reaching Net Zero. That puts the Net Zero goal at risk – and especially where the re-jigging

breaks fundamental principles of the ETS, which treats emission reduction and emission removals equivalently.

- 4.9 Policy uncertainty introduced by this kind of arbitrariness will be bad both for the climate response, and for the investment climate more generally.
- 4.10 Consider research like that underway at Canterbury University currently, which seeks to use olivine to sequester vast amounts of carbon.<sup>vi</sup> A potential investor in that research could look at the investment climate that the government is here introducing and decide that it is silly to invest in the technology – not because it is without promise, but because the New Zealand government simply cannot be trusted. A government with a strong preference for gross over net emission reductions could decide that sequestering vast amounts of carbon at low cost is undesirable because it doesn't encourage reductions in gross emissions. In that case, an ideological decision could mean no carbon credits would be available for carbon sequestration through olivine. Investing in New Zealand becomes riskier – to no benefit to the climate.
- 4.11 Investment in other sectors becomes riskier as well. If the government can arbitrarily decide not to award carbon credits for carbon sequestration after having only recently announced the permanent forests category, and after investors will have taken costly efforts to identify sites suitable for permanent exotic forests, New Zealand becomes that much riskier in general. What other arbitrary decisions might follow in other areas? Investors will demand a higher risk premium for investing in a country without sound and predictable policy institutions, the cost of capital here will rise, and we will all be poorer for it.

## 5 RECOMMENDATIONS

- 5.1 Award carbon credits through the ETS for any real sequestration, including in permanent exotic forests.
- 5.2 Remove the distortion favouring foreign investment in forestry by easing Overseas Investment barriers to investment in rural land for non-forestry purposes.
- 5.3 Deal with identified environmental problems through measures targeted directly at those problems and administered by the part of government most competent in addressing the identified problem, as and where cost-benefit assessment suggests intervention is warranted.
- 5.4 Stop introducing fundamental uncertainty into New Zealand's climate response and broader investment environment with half-baked proposals and Discussion Documents like this one.

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<sup>i</sup> Ministry for Primary Industries and Ministry for the Environment. 2022. *Managing exotic afforestation incentives: A discussion document on proposals to change forestry settings in the New Zealand Emissions Trading Scheme*. MPI discussion paper no. 2022/02. Available at

<https://www.mpi.govt.nz/dmsdocument/50206-Managing-exotic-afforestation-incentives-Proposals-to-change-forestry-settings-in-the-NZ-Emissions-Trading-Scheme>

<sup>ii</sup> Tinbergen, Jan. 1952. *On the Theory of Economic Policy*. Amsterdam: North-Holland Publishing. Available at <https://repub.eur.nl/pub/15884/> See Chapter 5.

<sup>iii</sup> Land Information New Zealand. "2017 Ministerial Directive Letter – technical commentary." Available at <https://www.linz.govt.nz/overseas-investment/discover/what-we-do/2017-ministerial-directive-letter-technical-commentary>



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<sup>iv</sup> New Zealand Forest Service. 2021. “One Billion Trees Fund: 30 Month Monitoring and Evaluation Report.” Available at <https://www.mpi.govt.nz/dmsdocument/49315-One-Billion-Trees-Fund-30-month-monitoring-and-evaluation-report->

<sup>v</sup> Climate Change Commission. 2021. *Ināia tonu nei: a low emissions future for Aotearoa*. Available at <https://www.climatecommission.govt.nz/our-work/advice-to-government-topic/inaia-tonu-nei-a-low-emissions-future-for-aotearoa/>

<sup>vi</sup> University of Canterbury. 2021. “Common mineral could be key to tackling climate change.” <https://www.canterbury.ac.nz/news/2021/common-mineral-could-be-key-to-tackling-climate-change-.html>