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NEWSLETTER OF THE ENVIRONMENT AND CONSERVATION ORGANISATIONS OF NEW ZEALAND

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Auckland kauri tree threat product of changes to the RMA

The threat to the kauri and other native trees in Titirangi, Auckland, results from changes to the Resource Management Act (RMA) between 2009 and 2013. Landowners wanted to fell ancient old trees so that they could build two houses.

The action of #saveourkauri and others have stopped the trees destruction but the RMA changes undermined environmental protection including both urban tree protection and public participation. The government changed the RMA so that trees, and groups of trees, have to be specified in plans to be protected.

RMA "reforms" planned by the government would make things much worse. In the government's proposed further changes, outstanding natural features and landscapes would also only be considered for protection if specified in the district plan. Because there has not been such a requirement, few will be so specified. The government wants to remove also the duty to consider the maintenance and enhancement of the quality of the environment, removal of consideratrion of amenity and intrinsic values and the ethic of stewardship.

Public protest protected kauri tree in Titirangi but RMA changes will make it much harder. Photo: George Darroch

Major changes to the RMA proposed by the Minister for the Environment in January will weaken environmental safeguards and will not solve housing

IN THIS ISSUE:

Climate Change Special

2015 is a crucial year in the state of the planet. Climate negotiations are leading towards the key meeting in Paris at the end of the year.

This issue has a series of articles dedicated to climate change negotiations and what the New Zealand Government up to and what it should do and is not doing to respond to the challenge.

Articles include a German review of 48 countries' performance on climate change. NZ ranked in the bottom five countries due to failure in policies and measures and trends in emissions.

Other articles report on the past climate negotiations and the lack of action. Other articles review what New Zealand needs to do and what post 2020 reduction targets it should commit to.

(Kauri Trees and RMA continued from front page)

affordability issues which is the rationale for these that Environment Minister, Nick Smith has given.

The changes proposed will elevate economic interests over environmental, social and environmental well being, give more primacy to private property rights and further erode public participation. Some sensible provisions were also proposed, but would be outweighed by harmful measures.

Housing affordability is a localised problem in Auckland and Christchurch: nation-wide changes are not the solution and these will weaken environmental protections.

While reducing house prices is a laudable objective, but there is little evidence that the RMA and planning controls are the main drivers of house price increases. The rocketing prices in Auckland may have a small planning influence, but these are not the main explanation.

On the supply side, a report commissioned by the governnment from Motu, based on interviews only with 20 Auckland developers, notes that changes in the Auckland Plan will already make it easier to build more houses, so it is questionable whether we need to sacrifice urban quality to developer interests. The Building Act is also involved. The Motu review showed that the cost of the consents process is small for big subdivisions with costs increasing around 0.4-0.5%.

That house price escalation is much more likely to relate to demand issues, particularly given that the RMA applies nationally and the price escalations are in two regions. Increases are most evident in Auckland and Christchurch, the latter of course reflecting the peculiar influence of the earthquakes."

Demand for housing is influenced by interest rates, tax policies, net migration and population, and the incomes of buyers of dwellings. There is nothing about these considerations in the Motu report for Treasury.

Making policy for the whole country on the basis of interviews with 20 Auckland developers, and no consideration of the interests and perspectives of others affected, or the councils, is really unsound policy analysis and decision making.

The latest Ministry for the Environment survey of council performance under the RMA showed they processed 97% of consents on time. Only 0.27 percent of resource consents were declined.

Minister Nick Smith is right that the urban environment and the natural environment both need more protection. ECO also agrees that there is a need for natural hazards to be carefully considered. But changes to elevate economic and private property interests over community and affected citizens' interests will not enhance overall well-being.

We agree we need good infrastructure, but that does not mean that infrastructure such as roads should be obsessively pursued at the expense of the enjoyment and functionality of urban space and the quality of the environment.

The government could do much more to protect the environment. It has failed to progress the National Policy Statement on Biodiversity for four years since submissions closed.

Real benefits could be gained not by elevating economic and private interests over other interests amending the Act but helping councils with their application of the RMA.

More National Environmental Standards are also a good idea. But provisions Nick Smith has referred to for ad hoc decisions on policies and standards by Ministers, will lead to policy instability, extra costs, and a loss of suitability of planning rules for districts and regions.

The Northland by-election will influence whether the RMA changes are passed as proposed. If these are there will also be a loss of quality and democratic engagement.

Kauri Tree at risk from development in Titirangi, Auckland. Thanks to #saveourkauri for the photos.

EPA Turns down Chatham Rock Phosphate

In a huge relief for the Chatham Rise environment, the Enviromental Protection Authority (EPA) Decision Making Committee (DMC) turned down an application to mine phosphate in February. The application was for 5,207 km^2 of the Rise of which about 1,050 km^2 was to be mined in the first 35 years *(see Oct-Nov 2014 ECOLink for more details)*.

"The DMC's finding is that the destructive effects of the extractive activity, coupled with the potentially significant impact of the deposition of sediment on the areas adjacent to the mining blocks and on the wider marine environment, could not be mitigated by any set of conditions or adaptive management regime that might reasonably be imposed."

The applicant Chatham Rock Phosphate has not appealed the decision but is instead arguing for changes to the Exclusive Economic Zone (EEZ) legislation to make it easier for mining applications to proceed.

Interestingly the EPA DMC was not persuaded by the economic benefits of the proposal. The said they were "not persuaded that the proposal's economic benefit to New Zealand would be of the significance argued by the applicant, or that reliance could be placed on economic benefits as a potential offsetting factor."

There were also other questions around the presence of uranium in the phosphate, which could present a number of different issues for our farms and our food exports. Greenpeace experts raised those issues at the hearing – and even the company expert couldn't confirm whether uranium would get into the food chain.

"The area is home to many whales, is in an area closed to trawling, and the deep seabed holds deep sea corals and many other species which would have been destroyed by phosphate mining, including endemic species, species which are found nowhere else.

Chatham Rock Phosphate is trying to raise another $1.25 million to reapply for a mining licence. The TTR case is in the high court and the applicant is looking at applying again for a licence.

The Deep Sea Conservation Coalition (DSCC) said they agreed with then Conservation Minister Nick Smith when he told Parliament the EPA's decision to turn down the last seabed mining application by Trans Tasman Resources 'confirms the robustness of the regulatory framework.' The EPA has, again, confirmed this.

If the Government changed the EEZ legislation in response to the Chatham Rock Phosphate case and the decision last year by the EPA to turn down the Tran-Tasman Resources sand mining application, it would be ignoring the risk to the environment and favouring one interest over other.

The Minister for the Environment, Nick Smith, stated in parliament in February that "The Government is giving consideration to some amendments" to the EEZ legislation.

ECO consider all interests should be consulted on before a decision is made to pursue any changes. Kiwis Against Seabed Mining (KASM) said the government needs to take a step back and have a good look at whether this destructive activity is at all appropriate for New Zealand. We call on the Government to issue a moratorium on seabed mining."

Karangahake Mine Update

The High Court has agreed to hear a request by Protect Karangahake to review the decision to grant the Talisman Mine resource consents by Hauraki District Council. The mine is on conservation land (see the article in Oct-Nov 2014 ECOLink).

The case is challenging the granting of New Talisman's resource consent without public notification and for not having properly assessed the effects the mining activities would have on the local community and ecologies.

The group has also been given the opportunity to comment to Hauraki District Council on the proposed traffic management plan for the mine. They highlighted serious safety concerns, including walkers and heavy trucks sharing the same small road within the conservation estate and the risk to residents living along the narrow winding Crown Hill road, which the company proposes to use.

For more information see www.watchdog.org.nz and www.protectkarangahake.org.nz

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Antarctic toothfish pirate fishing - countries are closing in

Last summer's action by New Zealand, Sea Shepherd, and Australia to disrupt pirate toothfish vessels shows the gaps in international law to stop IUU fishing.

ECO congratulated the New Zealand Navy and government for monitoring unauthorized and unreported fishing in Southern Ocean and the actions taken by Sea Shepherd to follow up on vessels and obtain evidence of gillnetting by the vessels

One of the vessels, the Kunlun is now being held in Thailand with 150 tonnes of toothfish on board after being tracked from the Southern Ocean. It was also boarded by Australian navy personnel south of Indonesia ,which added to the evidence of illegal fishing.

The Navy action and its application to board the three pirate vessels. It was disappointing that the boarding of the Yongding and the Songhua did not occur due to conditions and the pirate skippers' actions. These two vessels are still fishing for toothfish.

Antarctic specialists from ECO say that the legal "book" is pretty slim and ineffective. Cath The ability to take further enforcement action is limited under international law but if the vessel is without a flag state that makes it easier for countries to take action.

The people who ultimately stand to gain from fishing in Antarctic waters are well known for evading regulations and know every trick in the book. These beneficial owners appear to be the Vidal Armadores SA Galician fishing interests in Spain. With a variety of other fishing interests, they are well practiced at conducting their business in the shadows without authorization or reporting, or with a mix of legal and unauthorised vessels.

The vessels were reporting they were operating under a Equatorial Guinea flag in the Southern Ocean but the Kunlun later tried to appear as an Indonesian vessel.

These IUU operators use flag of convenience and they exploit poor countries and/or those with corrupt officials to register vessels. It is a world-wide problem.

International controls are weak and rely on countries taking action against their flagged vessels. The rules of the Commission on the Conservation of Antarctic Marine Living Resources (CCAMLR) have some strength: but only over the countries that actually belong to CCAMLR, which Equatorial Guinea does not. Spain is member, but technically the vessels do not belong to Spain.

CCAMLR countries could take action against their nationals who are on the vessel especially if they are the skipper or fishing master.

"Another option for the international community would be to block the unloading of the catch using what are known as "port state" controls. Thailand could refuse to allow the catch to be unloaded or shipped through their countries unless it has valid "catch documentation".

The Galacian fishing interests behind this have been notorious for organized fishing crime for decades, but have evaded enforcement measures.

The European Commission may be able to act if European states are involved.

In the last few weeks Spain has been undertaking fisheries enforcement action in Galicia. "Operation sparrow" has included the inspection of companies based in Coruña, in Galicia, for their alleged links with pirate fishing vessels active in the Southern Ocean. This included shipowners Vidal.

Korea, a CCAMLR member, has recently taken action against its vessels for illegal fishing and has banned Insung vessels from fishing for toothfish in the Southern Ocean. Russia is also investigating its vessels for anomalous fishing activity in the Weddell Sea.

Agreement on jack mackerel and IUU vessels

Jack mackerel and illegal fishing vessel dominated discussion at the annual meeting of the South Pacific Regional Regional Fisheries Management Organisations, which was held this year in Auckland. ECO representatives attended the meeting in early February.

The meeting agreed to new catch limits and allocation for the major jack mackerel fisheries which was heavily over-fished earlier this decade. The new limit of 4440,000 tonnes will be shared among a number of countries with Chile's allocation being the largest at 297,000t. The stock is still in a parlous state at well under 20 percent of its unfished size and under some future scenarios the stock does not recover.

There was major discussion at the meeting on IUU (illegal, unreported and unauthorised) fishing. The Russian flagged fishing vessel Aurora and the currently Peru flagged processing vessel the Damanzaihao, (formerly Russian flagged as the Lafayette). The Damanzaihao is currently being investigated by Peru for IUU activity.

NZ diplomat, Bill Mansfield, ended his role of chair after nine years shepherding the negotiation and initial meetings.

Long way for New Zealand to catch up on climate protection

by Franziska Marten and Jan Burck, Germanwatch.

In this year's Climate Change Performance Index (CCPI), a ranking of the 58 countries which account for 90% of global CO_2 emissions, New Zealand (NZ) ranks 43rd. The CCPI was released in December 2014.

Besides the country's ranking in the policy part of the Index (53rd), the emissions category is by far New Zealand's weakest sector. With more than seven tonnes of energy-related CO_2 emissions per capita, NZ is one of the very poor-performing countries. In the field of "emissions development", the picture looks a bit brighter; while industrial emissions are still increasing rather rapidly, there are some good developments within other sectors. Regarding the indicator "CO_2 Emissions from Electricity and Heat Production", NZ is ranked 6th.

The CCPI only considers CO_2 greenhouse gas emissions (GHG) and does not cover emissions from livestock and agriculture, so nearly half of NZ's overall emissions have not even been taken into account within the current ranking (see pages 6 and 7). According to NZ's own projections, the country's 2020 emission reduction target of -5% below 1990's level is already out of reach: gross emissions in 2020 are officially forecast to be just 0.6% lower than in the business as usual scenario (BAU), which means the NZ government has not taken any actions at all.

For the CCPI, the energy sector, accounting for 42% of NZ's emissions, is of high interest. With its already high share of about 38% renewables in the energy mix and nearly 75% in the electricity generation, the country scored very high (rank 7) for that indicator. Yet, experts criticise that the government's target of 90% renewable electricity by 2025 is unlikely to be met under current policies as official projections show. Instead of proactively promoting renewables, some experts note the government is leaving it to the market to displace fossil fuel emissions from the generation sector and at the same time, putting effort into promoting oil and gas exploration.

NZ's main approach to decrease emissions is based on the Emissions Trading Scheme (NZ ETS), which when passed, was preferred to the introduction of a carbon tax. It has been modified twice since the current government came to power, which has severely weakened the ETS, resulting in a carbon price collapse to less than USD$1 per tonne. This was ranked the lowest of any carbon price schemes in operation in the World Bank's 2014 review "State and Trends of Carbon Pricing". In addition to the very low price in the current ETS, emissions-intensive industries are subject to generous free allocations of carbon credits of up to

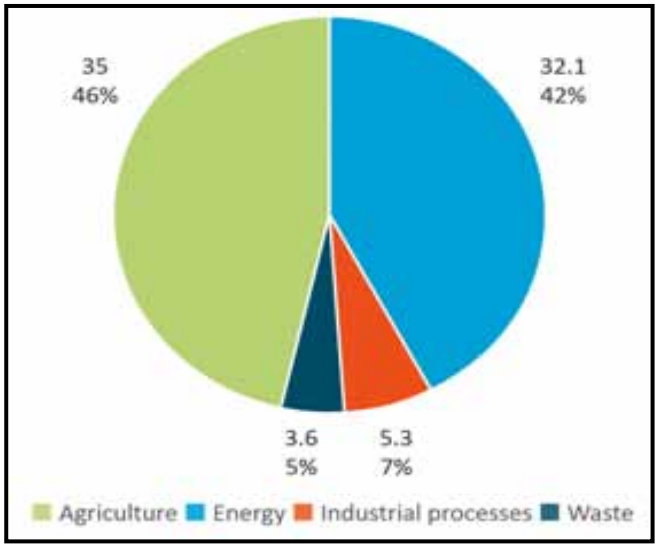

Fig 1: New New Zealand's greenhouse gas emissions in 2012 (by Sector, in million tonnes of CO2 equivalent) (Ministry of the Environment, April 2014)

90% of their emissions. It is therefore not surprising, that the indicator "CO_2 Emissions from Manufacturing and Industry" by far is the weakest within the emissions development sector in the index ranking (46).

Although NZ ranks 16th in the current CCPI regarding the indicators "efficiency level" and –efficiency trend", local energy experts have commented negatively on current policies in that field, especially in the residential sector. Some criticise that the rise in efficiency in the housing stock is mainly a social welfare project with minimal net emission savings.

The overall rank for NZ's national and international climate protection policies, given by local energy and Climate experts, who evaluated the country's performance in those fields, should be devastating for NZ leaders. Coming from an even worse position in the last year, NZ ranks 56 and thus belongs to the bottom five, accompanied by Spain, Australia, Canada and Turkey.

(Continued page 7)

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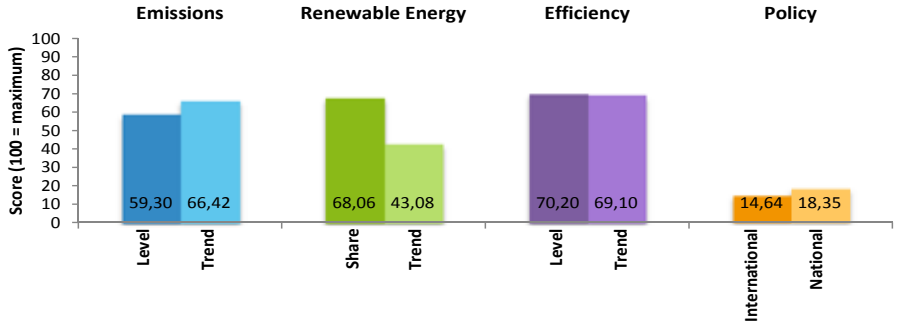
CCPI 2015

Country Scorecard

New Zealand

last year 41 | Rank 43



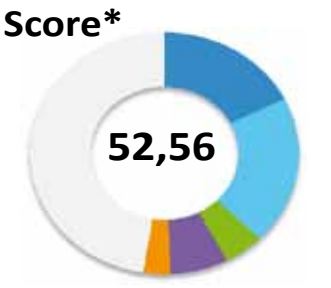
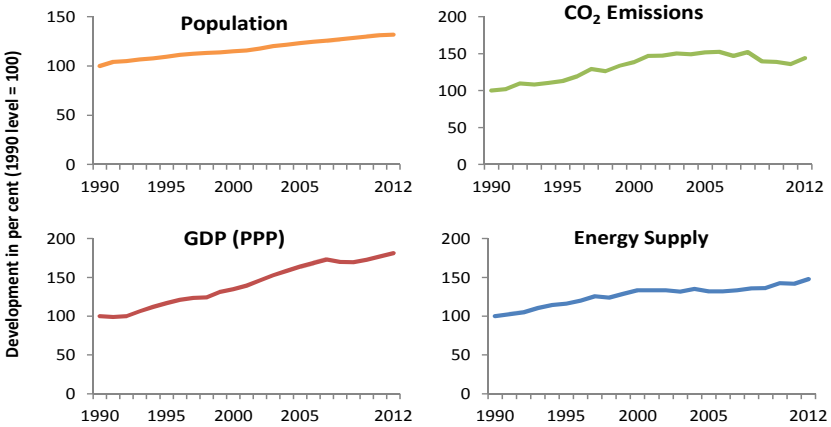


*Diagram shows sum of weighted partial indicators (see indicators table)



Key Indicators	2012
Population [million]	4,44
GDP per Capita (PPP) [US$]	26207,21
CO2 per Capita [t]*	7,23
CO2 from Forests per Capita [t]	1,03
CO2 per GDP [t/1000US$]*	0,28
TPES per GDP [MJ/US$]	6,82
CO2 per TPES [t/TJ]*	40,49
Share of Renewable Energy of TPES	38,11%

TPES= total primary energy supply
PPP= purchasing power parity in prices of 2005
* energy related emissions only
Source: IEA (2014) and FAO (2010)

Indicators	Weighting	Score	Rank
Emissions Level			
Primary Energy Supply per Capita	7,5%	**57,41**	**45**
CO2 Emissions per Capita	7,5%	**64,35**	**42**
Target-Performance Comparison	10%	**56,92**	**48**
Emissions from Deforestation per Capita	5%	**54,73**	**56**
Development of Emissions			
CO2 Emissions from Electricity and Heat Production	10%	**91,58**	**6**
CO2 Emissions from Manufacturing and Industry	8%	**51,06**	**46**
CO2 Emissions from Road Traffic	4%	**59,24**	**27**
CO2 Emissions from Residential Use and Buildings	4%	**46,88**	**37**
CO2 Emissions from Aviation	4%	**60,94**	**28**
Renewable Energy			
Share of Renewable Energy in Total Primary Energy Supply	2%	**68,06**	**7**
Development of Energy Supply from Renewable Energy Sources	8%	**43,08**	**27**
Efficiency			
Efficiency Level	5%	**70,20**	**16**
Efficiency Trend	5%	**69,10**	**16**
Policy			
International Climate Policy	10%	**14,64**	**56**
National Climate Policy	10%	**18,35**	**53**

Results of the Germanwatch Climate Change Performance Index
www.germanwatch.org/en/ccpi

(Continued from page 5)

Since the NZ ETS is a core element of emissions reductions policy in New Zealand, its effectiveness is crucial for the achievement of any mitigation targets.

Although there is a number of Emission Trading Schemes, like the one all EU member states agreed on (EU ETS), of which the effectiveness is questionable, some countries managed to strengthen it with support measures. Denmark for example, the CCPI-leading country, has the additional goal to reduce CO_2 emissions by one million tonnes per year, which includes the ability to cancel current emission rights. The UK has set a carbon price floor, a minimum price for a tonne of carbon to absorb the crashing carbon price of the EU ETS. Also the Californian cap-and-trade scheme is based on a minimum price for allowances.

Besides emissions trading, there are other possible measures to regulate the amount of CO2 emissions released into the atmosphere. This includes consideration of a carbon tax which could be a more reliable and stable option. . Whilst NZ decided against it, Denmark and Sweden adopted a carbon tax in the early 1990s covering the use of fossil energy sources. The annual emission reduction associated with the carbon tax in Denmark is estimated to be 1.5 million tonnes of CO_2equivalents. Also the German government, among many others, has put in place an eco-tax for the energy- and electricity sector.

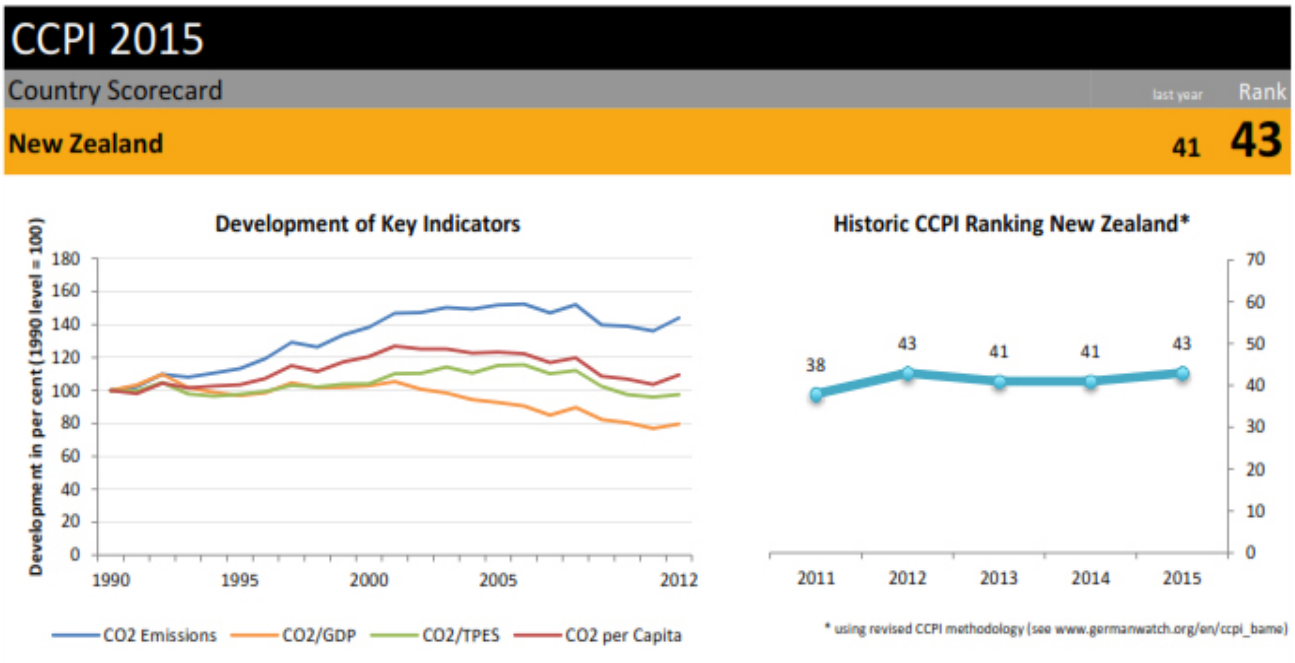
Coming from an even worse position in the last year, NZ ranks 56 and thus belongs to the bottom five, accompanied by Spain, Australia, Canada and Turkey.

According to local CCPI experts, the NZ government seems to promote research on options to decrease GHG emissions from the agricultural sector, but in the energy sector there is still a lot of work needed. New Zealand should develop further its cheap renewables rather than leaning back on the current level, adjust the legislation for the ETS, and introduce supportive policies. In doing that, New Zealand would have the great potential to take a lead in international climate protection policy.

For further information on the CCPI see the Germanwatch website at - https://germanwatch.org/en/9472

Germanwatch is a German NGO which has been actively promoting global equity and the preservation of livelihoods since 1991. It focuses on the politics and economics of the North and their worldwide consequences. The situation of marginalised people in the South is the starting point of our work.

Fig 2: Climate Change Performance Index (CCPI) for New Zealand (pages 6 and 7) - The CCPI's methodology is based on emissions- and renewable energy data from the International Energy Agency (IEA) and from emissions data from deforestation from the Food and Agriculturel Organisation of the UN (FAO). It describes climate protection efforts of a country in five categories: Emissions Level, Development of Emissions, Renewable Energy, Efficiency and Climate Policy.



Climate negotiations – from Lima to Paris – What's NZ hiding?

by Cindy Baxter, CANA and climate negotiations veteran

Lima, Peru, December 2014, climate negotiations. We're in an enormous temporary structure, a room where 192 Governmental delegations are gathered, listening to a series of presentations from countries whose turn it was to present an overview of their government's climate policies.

We'd sat through a few of the presentations, all graphics, numbers and tables, giving statistics and a technical presentation of climate action around the world.

Then New Zealand's up: it's Jo Tyndall, head of the Government delegation to Lima negotiations. I'm with a little clutch of Kiwis, mostly from youth organisations.

The slideshow is unlike any we've seen that day. Are we at the right meeting? Did we somehow end up in a Tourism New Zealand presentation? We see image after image of Aotearoa's mountains, beaches and lakes.

Ah, finally: there's a graph: what does it say? Who knows, it was up for a fleeting ten seconds before we're back to shots of birds, geysers, dolphins etc.

The graphic, had it stayed on the screen long enough, would have shocked other delegations. It showed that by 2020, our emissions will be around 24% above 1990 levels. In this warming world, New Zealand has committed to cutting emissions by 5% below 1990 levels, yet we're heading in the opposite direction.

The Sustainability Council disagrees with our Ministry for the Environment – Simon Terry has done the number-crunching and says the figure is more like a 33% increase: 168 megatonnes of CO2 equivalent (Mt of carbon or MtC02e) greater than the target would allow during the period from 2013 to 2020. By 2030, that figure is predicted to be a 42% increase.

Tyndall's presentation gets an interesting response from other governments, who make slightly sarcastic remarks about the beautiful images in the presentation, but they ask hard questions.

Yes, says Tyndall, New Zealand will meet our target. We'll meet it through emissions trading, using "credits" we have gained through the planting of forests.

Simon Terry says this will halve our overshoot to 78Mt-C02e if carbon absorbed by crop forests is also counted – what it calls "net emissions."

"In 2020, gross emissions (those from fossil fuels and agriculture) will be just 0.6% lower than if the government had taken no action on climate change. In 2030, gross emissions will be just 0.4% lower than if the government had taken no action."

But New Zealand has a problem. Our 2020 target is set outside the Kyoto Protocol, as we refused to join the Second Commitment Period, unlike the EU and others – even Australia. However, the Government seems to think that the new rules set at the Doha climate talks in 2012 mean we can still trade emissions as if we were in Kyoto.

This is a crucial point. The Government has met its obligations so far by claiming forestry (hot air) credits under the Emission Trading Scheme (ETS), and our broken ETS system allows for purchase and trading of cheap international credits. That we give our big polluters free credits worth around $4/tonne which they can turn around and swap for 20cent/tonne international credits, thus making a profit at the taxpayer's expense, is a whole other side of this sad story.

New Zealand has gathered so many international credits that it plans to carry them over to the second commitment

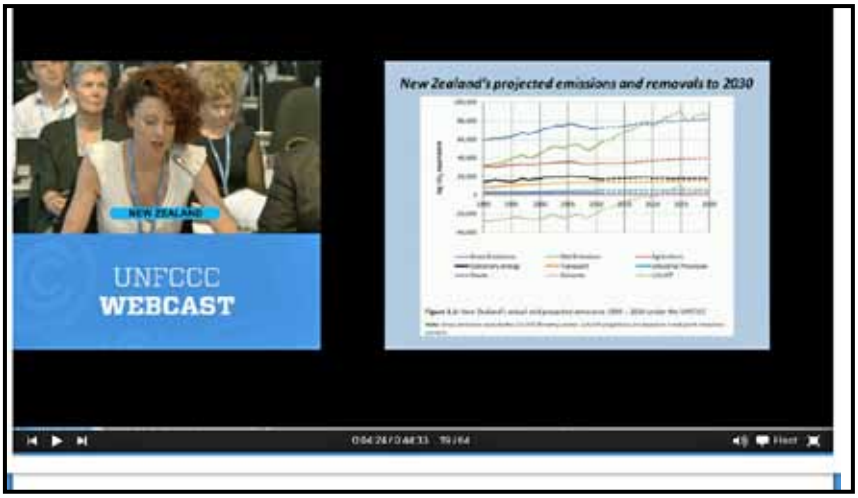


Fig 1: Blink and you'll miss it - the one graphic from the New Zealand's Lima presentation on climate - onscreen for about 10 seconds.

period, 2013-2020, and use those credits to pay for our ballooning emissions in 2020.

What's worse, is that our "Kyoto forests" will be largely matured by 2030, and will be cut down, adding more debt to our carbon accounting.

The international legal situation is far from clear. Most Governments say that rules agreed in Doha were set up to specifically exclude those like New Zealand who are outside of the Kyoto Protocol, to stop them being about to "carry over" credits gathered in the first commitment period. Our Government legal eagles appear to think otherwise, and think they can still trade. Tyndall did not raise this at her Lima briefing as it would have received a storm of disapproval and objections.

Whichever way we do it, if we meet our 2020 emissions reduction target by trading, it's going on the credit card. Because it's clear there's no other Government action on the cards, action that would actually reduce emissions, instead of trading (hot air) our way out of the problem.

In the ensuing days in Lima our Climate Change Minister, Tim Groser, was around – twice I overheard him telling other delegates how well we are doing on climate change. Seriously?

Back to that Sustainability Council briefing (which I urge you to read): three quarters (77%) of the growth in NZ emissions between now and 2030 is expected to come from agricultural gases – the dairy industry, who pay nothing for their share now, and, if their lobbying is hard enough, will continue to pay nothing for years to come.

This is the same industry whose political spokesperson, Federated Farmers President William Rolleston, says he's "on the fence" about the climate science. And the industry currently suffering under a massive drought, and requiring millions in Government/taxpayer-funded assistance because of it (this is what climate change looks like, people).

Back to that room in Lima: Jo Tyndall is questioned about what New Zealand is going to do about our expected increase in transport emissions. The Tesla electric car, she tells the room, is a very exciting development. She admits the way the Government measures our emissions means you can't actually tell if a particular policy is having an impact on our emissions profile. Why would you want to measure what you're not doing?

December this year is the next big climate conference, and Governments are expected to submit their "Intended Nationally Determined Contributions" (INDC) – which is our target for cutting emissions in 2030. The first deadline of 31 March is for governments who can do so, to announce their targets, to encourage others to do the same.

Of course Mr Groser's long-held views that we want to wait until "everyone" acts before we will shift our policy should mean that we'd be rushing to table our new target, so as to get that global action going. But we have some kind of weak promise that we'll get a target sometime in the middle of this year. How much public consultation will take place is anybody's guess.

Our ETS is also up for review. Will they fix it?

At the end of the day, what we know is that New Zealand is not "doing our fair share." Our ETS is broken, we have no real plan for cutting emissions, and we are now starting to get hit by quite serious climate impacts.

It's a big year for the climate. Let's hope New Zealanders wake up to the fraud that is our national policy.

Fig 2: The rest of the NZ's climate review slides could have been from a tourism promotion - maybe they just wanted to indicate some of the areas that would be flooded by lack of action on climate change.

New Zealand, the farce-follower

by Sophie Schroder, Greenpeace

It's been said that New Zealand's position on climate change is comparable to a dishonest version of our Abbott-led neighbour in Australia: At least they're straight up about giving the issue the proverbial middle finger.

At the 2014 Climate Change Conference in Lima last December, it was difficult to hide the fact that our "clean, green" Aotearoa is now facing increasing scrutiny.

The criticism we've received for promoting a clean image despite having an environmental policy that's anything but, has been a shoe that fits since we were internationally condemned for pulling out of the Kyoto Protocol in 2012: Now perhaps, it's time to wear it.

Far from being even the cop-out "fast-follower" John Key promised when defending why we shouldn't lead the chase against climate change, New Zealand is instead on the fast-track to earn the title of one of the slowest developed nations to act.

And there's no denying that international eyes are starting to see through the greenwash.

In Lima, we were forced to defend ourselves against a tough line of questioning from powers-to-be including the EU and China, which pointed out blatant discrepancies in our weak proposed voluntary scheme. This approach is where the targets for NZ's emissions reductions are not legally binding and our performance is conditional on other developed countries making comparable efforts, and what the real projection is.

The EU rightly questioned that although our "target" for 2020 is a 5% reduction on emissions based on 1990 levels; the Government's biennial report to the Convention actually reveals that projected emissions in 2020 are already looking to soar to more than 25% above 1990 levels.

So far we've managed to hide that gaping black hole, balancing the books by using credits issued for the carbon removed from the atmosphere by forests planted post-1989 on previously unforested land.

But that stack of cards is about to collapse: Come 2020 and the majority of those trees will be cut down, releasing the carbon dioxide which must be accounted for.

This will leave a massive hole in our carbon bank, which, along with our increasing emissions profile, the Treasury estimates in October could cost the taxpayer up to $30 billion under an existing pollution trading scheme.

Unless our government does something - and fast - to plug the gap, New Zealand will be exposed as a "farce-follower" to the world.

This is especially pressing now that two of the biggest global polluters, China and the United States, have announced a once-thought impossible climate change agreement, which sees China committing to slow and then stop its emissions by 2030, and the US reducing its emissions by up to 28% by 2030. Coal use in China has plateaued in the last year.

New Zealand no longer has the excuse that cutting its emissions will strain its most important trade relationship with China.

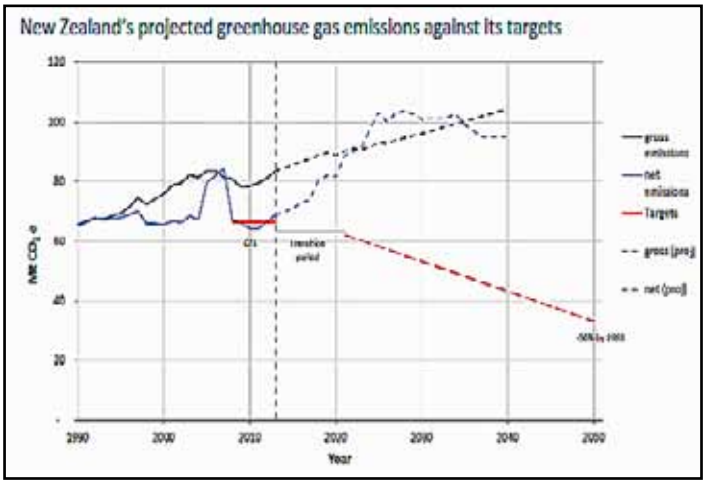
Even in the absence of having something legally binding, the simple fact of the matter is that if China is now embracing clean energy, we're going to have to as well.

We're going to be a clean energy nation - but embarrassingly, it will be by default.

As the price of oil collapses and the demand for coal falls away, the government's heavy dependence on such polluting industries looks as out of date as the technologies themselves. As investors increasingly turn their attention to cleaner, smarter more stable technologies, this lack of vision from our government could cost our economy greatly.

That's unless we grab what's left of our mana and prepare to take something brave to the table at the UN Climate Change Conference in Paris this November.

Away with this "fast-follower" concept - domestically,



MFE and Treasury have identified the failure to reduce emissions especially in contrast to a Government commitment to a 50% cut by 2050 or 5% cut by 2030 over 1990 levels.

there are so many opportunities for us to become a leader.

Not in the least, we could start by helping China. They've been bold enough to make the promise to cut emissions, but lack the technical expertise to achieve it.

Guess what? We have the expertise. Leveraging that could prove an economic watershed for a country like New Zealand.

We're good at renewable energy. We are lucky to live in a country that has such a plethora of resources at our disposal, even if we are yet to fully embrace them.

But we do already have the technology here and now to take advantage of the opportunities before us. The cost of installing solar panels continues to drop, the numbers of people around the country who own electric cars is increasing; and thanks to our geothermal industry, we have been handed the potential to be a world leader in cleaner energy.

The clean energy market has already been valued at more than five trillion dollars globally. It doesn't take a genius to see that it makes smart business sense to tap into that, especially if we want to continue cashing in on our green reputation – of which a huge 70% of our export revenue is directly attributable.

By investing in a cleaner and smarter country, we will see - quite quickly - a multi-billion dollar boost to our economy, the creation of tens of thousands of jobs, and a strategic way forward to build a thriving, cutting edge export industry.

But the journey to get there needs to start at the top and it needs to start now: It would be pretty farcical to win by default, wouldn't it.

Climate special section

2015 is a crucial year in the state of the planet. Climate negotiations are leading towards the key meeting in Paris at the end of the year.

Pages 5 to 18 are a special section of ECOLink dedicated to climate change issues, international negotiations, and what the New Zealand Government is doing and what it should do to respond to the challenge to reduce greenhouse gas emissions and stabilise mean world temperature rise below 2°C.

Articles include a German review of 48 countries performance on climate change. NZ ranked in the bottom five countries due to failure in policies and measures and trends in emissions.

Other articles report on the past climate negotiations and the lack of action. Other articles review what New Zealand needs to do and what post 2020 reduction targets if should commit to.

The EU and Switerzerland are leading the charge in making commitments to reduce emissions. In March Finland passed a new Climate Act which has targets of cutting Greenhouse gas (GHG) emissions by 80% by 2050.

Finlands cut is in line with Europe-wide goals of 80-95% cut im GHG emissions by 2050 and "at least" 40% by 2030. Meanwhile, NZ Govt has yet to make any real commitment or action to reduce emissions to keep global climate change below an average 2°C rise in temperature.

New Zealand Government has been promoting more oil drilling which will inevitably mean more greenhouse gas emissions. A responsible Government would be promoting a strategy to develop a cleaner smarter economy and heading to zero net emissions.

(Photo: Greenpeace)

Jobs After Coal -A just transition for New Zealand communities

by Jeanette Fitzsimons, CANA

Coal Action Aotearoa (CANA) is committed to opposing all new coal mines in order to phase out this most serious contribution to climate change. We believe existing mines should be allowed to run their course, closing as the coal depletes or their permits run out. We calculate this can happen by 2027, and that with no new jobs being created in coal mines, many of the existing workforce will have retired.

We see this as a Just Transition, quite unlike what happened when the price of coal suddenly dropped in 2011-12 and Solid Energy laid off half its workforce virtually without notice.

However the public perception when you oppose new coal mines such as Denniston, or Fonterra's proposed new mine at Mangatangi, or Stevenson's proposed new West Coast mine at Te Kuha, is that "we need the jobs". Even people who recognise the urgency of stopping mining fossil fuels are reluctant to support us because of the social impacts. This is partly a tribute to the lobbying and spin of Straterra, the mining industry lobby group, which consistently refuses to deal with the climate change argument and talks up the community benefits of holes in the ground.

The CANA report Jobs After Coal, looked at coal and jobs and alternatives *https://coalactionnetworkaotearoa.wordpress.com/jobs-after-coal/ (see May-July 2014 ECOLink, p 5).*

The first surprise in researching the report was how few people still work in the coal industry. The figure is not published anywhere, so we rang all operating mines and compiled a total of staff, contractors and head office people that came to less than 1200 people nation-wide, even before the last round of layoffs. We compare that with manufacturing, where 39,000 jobs were lost in the five years 2007-12, with very little government concern or public outcry.

We are, of course, not proposing any layoffs – just no creation of new coal jobs.

It does not mean that those communities presently dependent on mining do not matter; but it does mean that the problem is manageable and alternatives can be found.

The next interesting discovery was that contrary to the claims of mayors and business associations who see a new mine as a great source of prosperity, coal mining communities are the poorest and the least employed in their regions. The economic benefits of mining generally don't go to local people.

The current downturn in mining has been due not to the efforts of environmentalists but to the world slump in coal prices. Coking coal, exported for steel making, slumped from over $300/tonne in 2011 to just $107 (May 2014) when the report was written. It has not recovered and we can't find a single industry analyst or economic commentator who expects it to recover any time soon. China is making less steel and recycling

more. Its precipitous growth rates have steadied and caused a glut of coal with its suppliers.

Coal mining communities are going to lose jobs and economic activity because of market conditions and it is a one-way trend. The report outlines why.

Coal provides relatively little energy to the NZ economy and what is there is substitutable, though a decent carbon price would help the transition a lot. Our one coal-fired power station, the geriatric Huntly, could close within a year, allowing time to build the wind and geothermal stations that are consented and read to go, but for which there is currently no demand. This, of course, would provide more jobs!

Fonterra is the largest user of coal for heat and is dragging the chain in investigating the use of waste wood from plantation forestry to fuel its milk driers. But the logistics and the economics have been done. It has put a proposed Fonterra mine at Mangatangi on hold but is still proposing to burn coal.

Many of the skills miners have are transferable to other industries. However we

found the issue of what miners could do after coal mining to be a different question from how communities can reinvent themselves and develop economic activity in other directions. Some of those most hurt by solid Energy's continuing job layoffs are the small businesses in those communities where the high incomes of coal miners are no longer being spent.

New industries based on hi tech wood products replacing steel and concrete for construction would be rich in jobs. There are many job opportunities in renewable energy, housing, conservation, public transport, horticulture – all part of a transition to a low carbon economy, our only hope for avoiding truly devastating climate change.

We found some overseas models for community regeneration after the closure of an industry. However without an inclusive and resourced process such efforts will fail. Parachuting in a big factory owned elsewhere to employ people will not provide long term and sustainable answers. Providing home-grown solutions to cold and damp housing, expensive food brought in great distances, high power bills and fuel costs, and waste of local resources is a promising place to start.

A Just Transition needs to involve every group in the community – business, workers, iwi, ngos, local government, polytechs, entrepreneurs, finance – and it needs good leadership if these groups are not used to co-operating. It is very important that the leadership be local, but that there is a unit in government which will assist with research, business contacts, advice, retraining assistance, and some seed finance for new ventures.

It can be done before coal jobs disappear any further with more job layoffs signalled in the near future, and even the possible financial collapse of the company. Now is the time to start in communities like Westport, Greymouth, Huntly, Mataura.

We invite you to read our report and welcome comments and further information – we will try to update it this year to keep the information current.

Huntly power station, NZ's major coal fired power station - time to be phased out.

EEZ Maui Gas Bill

The Government has introduce the Exclusive Economic Zone and Continental Shelf (Environmental Effects) (Transitional Provisions) Amendment Bill to allow existing operations in the EEZ to continue until their new consents are processed.

The Maui Gas operators have applied for a 35 year consent with the EPA and this has yet to be heard. Current transitional provision mean that the operation must cease if any decisions or appeals push a final decision past the expiration of the current license at the end of June. Three other existing gas and oil operations are also affected.

Submissions close on the 9th of April with the Local Government and Environment Select Committee, Parliament Buildings, Wellington. Submissions can also be made via the Parliament website - www.parliament.govt.nz

Impacts of oil and gas in Taranaki

by Sarah Roberts, Taranaki Resident

Many locals have expressed concerns about environmental, social, cultural and economic issues relating to the oil and gas industry in Taranaki. These matters relate to all oil and gas activities including fracking. Fracking has been described as enabling the expansion of the oil and gas industry.

The Parliamentary Commissioner for the Environment (PCE) published her final report in June 2014 (see http://www.pce.parliament.nz/assets/Uploads/PCE-OilGas-web.pdf). Her independent investigation upheld concerns around regulation and monitoring. The PCE recommended a national policy statement, public involvement in decision-making and pro-active provision of information.

Participants attending the ECO summer gathering at the start of February toured well sites and a production station in North Taranaki. These included Kowhai-A well site where local hapu blockaded Greymouth Petroleum Limited putting in pipelines; McKee Production Station where a tanker was blocked briefly from leaving the site by participants of the ECO gathering; and Mangahewa E well site.

Nearby the Canadian-owned Methanex Motunui facility produces methanol and gasoline from natural gas. It consumed 1/3 of the domestic natural gas supply in 2013 and nearly all the methanol is exported. Shell Pohokura is situated beside State Highway 3 and immediately adjacent to Methanex. According to John McDonald, Shell's Pohokura manager "the dangers of the site are one of the reasons the facility is operated remotely, keeping staff out of harm's way…". (http://www.odt.co.nz/lifestyle/magazine/295158/taranaki-knows-drill).

Fig 1- Todd Energy's Mangahewa E well site in North Taranaki

Fig 2: Greymouth Petroleum Inglewood

Participants were able to see first-hand how close these well sites, production stations and Methanex were to people's homes, livelihoods and local primary school. During the tour some local residents' spoke of the impacts on their own lives when living beside these industrial facilities and working with councils.

There are a number of other areas impacted by oil and gas activities across Taranaki. A brief description on the areas of Taranaki affected:

New Plymouth District

In North Taranaki Tikorangi is inundated by 'pepper-potting' of well sites. Greymouth Petroleum Limited and Todd Energy have drilled numerous wells, many in the last few years. There is Mangahewa A, B, C, D and E well sites; Kowhai A, B and C; and Turangi A, B and C; all with multiple wells. They are throughout Tikorangi, beside people's houses and near the local school. All have discharges of contaminants to land, air, and water right in the heart of this rural community plus intrusion of noise and flaring.

Near Inglewood there are a number of well sites with Greymouth Petroleum's Kaimiro's and Ngatoro's and TAG Oil's Sidewinder multiple well sites; next to houses and in the midst of life-style blocks and farms. In addition there are recent consents granted for a well site near a primary school of 140 children, Norfolk School (http://www.norfolk.school.nz/?page_id=2246). Similarly sized Ngaere School near Stratford and Tiko-

Fig 3- TAG Oil's Cheal C well site and New Zealand Energy Corporation's Copper-Moki well site

rangi School in North Taranaki are close to well sites and production stations.

Stratford District

In Central Taranaki the TAG Oil's (Canadian-owned) Cheal C (Cardiff) well site is near the Stratford town boundary. It is consented for up to 10 wells and a production station. Nearby is TAG Oil (Cheal Petroleum) Cheal A (up to 16 wells), B (up to 14 wells), E (up to 10 wells) and G (up to 10 wells) well sites. All these wells can be drilled and reworked multiple times.

TAG Oil's Cheal A well site also has a gas processing plant and production station. This site is near Ngaere School with up to 160 children. TAG Oil's Gas Release/Spill Contingency Plan states "in the event of a major gas release the greatest hazard to public safety is the possibility of a Gas Cloud drifting across the roads adjacent to the facilities: Cheal Production Station- State Highway 3. If there is a likelihood of this occurring contact the Police and Fire brigade via the 111 system".

New Zealand Energy Corporation's (Canadian-owned) Copper- Moki well site is located near TAG Oil's well sites. They were prosecuted for an oil spill into the Ngaere Stream. All these well sites are situated on farms.

South Taranaki District

In South Taranaki groundwater and soil contamination occurred at all 9 well sites at Shell Todd Kapuni gas field. They were not prosecuted. All are now being remediated.

Much of South Taranaki's drinking water comes from Kapuni Stream and bores right beside the Kapuni Production Station. Resource consent has been granted by Taranaki Regional Council and South Taranaki District Council for fracking to occur at a number of well sites near the water supply. Prior to the notification of the Kapuni contamination there was no testing for BTEX chemicals in the drinking water supply. BTEX is an acronym that stands for benzene, toluene, ethylbenzene and xylenes. These compounds are some of the volatile organic compounds (VOCs) found in petroleum products such as petrol and diesel.

There is now ongoing monitoring of the water supply for these chemicals.

Economic issues

What is the 'economic truth 'of oil and gas? Recent census data released from the University of Otago shows high social deprivation levels right across the province. There are significant clusters of deprivation in the towns of Stratford, Eltham, Hawera, Opunake, Manaia, Patea and Waverley. These towns are predominantly all decile 8, 9, and 10 (1 being very good, 10 the worst).

These are the government statistics that are not talked about. This is what it looks like 'on the ground' for many people in Taranaki every day. Where are they going next? Most of onshore Taranaki is now covered by a petroleum exploration or mining permit and the latest round of exploration permits has extended further across New Zealand.

http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11254032

http://www.nzpam.govt.nz/cms/investors/permits/block-offers/2014/release-areas

Fig 4 - Kapuni Production Station

Setting NZ's post-2020 GHG reduction target(s): most important issues?

Chris Livesey, ECO Exec member

After some 20 years of international climate negotiations focused on globally negotiated, binding, quantitative targets for every developed country, the global community has embarked on a modified track.

Last year the climate negotiations reaffirmed the goal of keeping global mean temperature rise below 2oC above pre-industrial levels. It further agreed that every country should determine what it considered to be an appropriate contribution to the global effort to reduce greenhouse gas (GHG) emissions. These are called Intended Nationally Determined Contributions (INDCs) which every country should offer by March this year.

The NZ Government should now be developing our INDC, so now is the time for interested organisations and individuals in civil society to communicate their views to our politicians. The Minister of Climate Change, Tim Groser, has indicated that there may be public consultation before a decision is made. The Government is not expected to meet this month's deadline.

There are two considerations of over-riding importance that should be considered when establishing NZ's INDC:

1. It should be set to give NZ the best possible chance to prosper and maintain, or improve, the wellbeing of NZers in the low-carbon global environment that we are inexorably moving towards;

2. It should be set so that NZ is seen to be doing its fair share to reduce global GHG emissions.

The global carbon budget and its implications for NZ's emissions reductions

The latest assessments by the Intergovernmental Panel on Climate Change (IPCC) tell us that to give a 66% chance of avoiding global mean temperature rise of more than 2oC, the world's cumulative net CO2 emissions from the beginning of the industrial revolution must be capped at about 2.9 trillion tonnes. By 2014 the world had emitted almost two thirds of this amount of CO2: we now have about 1 trillion tonnes left. Global emissions of CO2 are now about 40 billion tonnes a year; at that rate we will exceed the global budget within 30 years. (On recent trends it could be used up within 20 years.) That indicates that well before the end of this century NZ must have reduced its net GHG emissions to virtually zero.

In NZ reducing GHG emissions from agriculture and from fossil fuels require different approaches. Reducing emissions from agriculture is essential, but in my view, reducing them to virtually zero is likely to be neither desirable nor necessary. It is unlikely to be desirable because it would require reducing cattle and sheep numbers to virtually zero. Unless we are innovative, shift to non-ruminant livestock or more crops, it would entail a shift from higher value to lower value uses on much of our land. That would significantly reduce the incomes and wellbeing of most NZers. It is also unlikely to be desirable because NZ is a GHG-efficient producer of dairy and meat products. If NZ stopped producing these products more would be produced in other countries, unless people reduce demand and change diets, and total global GHG emissions from agriculture would increase.

Reducing NZ's GHG emissions from agriculture to virtually zero is not likely to be necessary because for many decades NZ could offset a large proportion of its agricultural emissions by planting more trees. That would enable us to achieve very close to zero net GHG emissions from land-based activities by say 2050. Other environmental impacts though could occur.

On the other hand, reducing NZ's emissions from fossil fuels to virtually zero well before the end of this century is both desirable and necessary. Some of NZ's GHG emissions from fossil fuels can be reduced by us changing our behavior – turning off unneeded lights in our homes and workplaces, using our cars less, driving in a more fuel-efficient manner, etc. Emission reductions from such behaviour changes are valuable (every tonne of avoided emissions is just as valuable as every other tonne), but these are likely to effect only a relatively small reduction in our total emissions.

Big reductions in emissions will come from the replacement of high emission plant and equipment with low emission plant and equipment, and buildings with low emissions and the replacement of high emission urban design and infrastructure with low emission urban design and infrastructure. This requires new investment, and investors need confidence that their investment will give them a good return, most often in a financial sense.

What will be best for NZ?

Change is often less costly when made gradually in a planned manner. Most studies suggest that if the objective is a substantial reduction in our GHG emissions by say 2050, the longer the delay in starting to make serious reductions, the greater will be the overall cost.

As powerful countries (who are also the largest emitters of GHGs) transition to low-carbon economies they may penalise, through international agreements or other means, higher income countries that do not transition in roughly the same timeframe. Our trade

competitors are always looking for ways to gain an advantage over us. This means that if NZ is perceived as doing less than its fair share of emissions reductions the risk of trade sanctions is high.

If NZ becomes one of the world's most GHG-efficient producers of goods and services NZ would gain a significant competitive advantage.

Virtually zero net emissions in NZ

What might a 'virtually zero net GHG emissions' NZ by 2050 look like? I consider that the most likely answer has five elements:

1. Power stations - most of the current coal- and gas-fired electricity generation would be replaced by generation with low GHG emissions (geothermal, wind, biomass, possibly tidal, and solar);

2. Transport – much of our vehicle fleet would be electric (mainly cars and light commercial vehicles) and a significant part (cars, trucks and planes) would be running on biofuels;

3. Energy efficiency and conservation – most of our electrical appliances and motor vehicles would be much more energy efficient than they are now. There would be more smart appliances, a smart grid which would reduce electricity demand, and increased storage capacity in the electricity system. This would enable increased peak demand to be met while building less new generating plant. New and retrofitted buildings would be more energy efficient. New and redesigned urban areas would be more transport energy efficient than most of our present urban areas;

4. Agriculture, especially pastoral agriculture, would be significantly more GHG-efficient (e.g. produce less GHGs per kilo of milk solids) than now;

5. Forests – more of the country would be forested than is the case now and many current native forests would be in better health (and hence storing more carbon) than at present.

	2012	2020	2025	2030	2040	2050
Agriculture - high	35	37	36	35	33	31
Agriculture - low	35	33	32	31	28	25
Energy - high	32	31	27	21	12	3
Energy - low	32	26	22	17	9	1
Other sources	9	9	8	8	7	6
Total - high	76	77	71	64	52	40
Total - low	76	68	63	56	44	32

Table 1: Indicative GHG emissions (Mt CO2-e)

What would this NZ be like to live in?

In my view the above changes would probably make very little difference to how we would live:

- the economy would continue to grow (possibly slightly less strongly than otherwise);
- the mix of jobs in the economy would change a little but there would be more jobs;
- pastoral agriculture would still be a major part of our economy,
- the cost of electricity would likely increase a little more than it would have if these changes did not take place; and
- transport would probably cost more (but the cost of electric vehicles and second generation biofuels will likely decrease markedly in the future).

All of this means that most of us would have incomes that enabled us to feed, shelter, clothe and educate our families perfectly well, to continue to enjoy the company of family and friends, to look after our health and the health of our families, to travel and to do all the other things we enjoy doing now. There are of course uncertainties Perhaps one of the biggest is the cost of the technology and infrastructure to support long distance trips by electric vehicles. This highlights that with respect to reducing NZ's emissions of GHGs, the means (i.e. how we are going to achieve our reductions) are at least as important as the end (i.e. the desired amount of the reductions).

The means are at least as important as the end

To achieve any of the five elements of a 'virtually zero net emissions' (above), substantial new and redirected investment is required. This is the first of the two critical issues that I consider NZ should address in setting its INDC. The key questions in relation to this issue are: what investment is needed by say 2050 to achieve a 'virtually zero net emissions'?. When do those investments need to be made? What policy settings (including research, development and demonstration) are needed to ensure that those investments are timely?

With this approach, we would develop several possible pathways to get NZ from where we are now to the outcomes noted above for each of the five elements. Each pathway would be based on particular technologies and timelines for the adoption of those technologies and policy settings that we could give investors suf-

(Continued from page 17.)

ficient confidence to make the investments. Of course, irrespective of the pathways that we come up with, the future will remain uncertain so constant monitoring with necessary changes would be needed to ensure that we keep on track to achieve a 'virtually zero net emissions' NZ by say 2050.

Identification of possible pathways would allow broad estimates of emission reductions from new investment on each pathway over time. That would allow quantitative estimates with targets and milestones for NZ's emissions and policy settings.

So far I have considered only the direct benefits to NZ of this transition (and there are benefits that are very difficult to quantify in monetary terms). Co-benefits from switching land use and reducing stock intensity also exist. Costs are also important and need to be considered carefully – not so much in relation to whether NZ should seek to achieve 'virtually zero net emissions' well before the end of this century (that is something that we just have to do) but in relation to:

- the possible pathways to that objective;
- the relationships between these pathways;
- the change points where it may become desirable to move from one pathway to another; and
- the policy tools and measures to direct us along any particular pathway.

Identifying possible pathways and designing effective policies is a substantial and complex task. The government does not seem actively engaged in this task. Several other organisations including Motu Public Policy and Research, the National Energy Research Institute, the Sustainable Energy Forum and Business NZ's Energy Council, are engaging at least in elements of it.

An effective GHG mitigation policy requires three elements across all sectors of the economy:

- a rising price on carbon,
- targeted sectoral measures to alter activities that are unresponsive to the carbon price at levels feasible prices; and
- support for research into new and improved ways of meeting human needs with less GHG-intensive energy sources, materials, production and distribution processes (including agricultural production).

Additionally policy stability is essential for needed investment to be made. Providing such stability requires a cross-party accord backed by consumers, business, and voters.

What might numerical reduction targets to achieve near zero net GHG emissions by 2050 look like?

Table 1 (page 17) sets out an indicative GHG emission schedule. To achieve close to zero net emissions by 2050, NZ would have to offset about 30Mt CO2-e a year through sequestration in new or enhanced forests. In 2012 NZ sequestered about 27Mt CO2-e so it is possible.

The Government's long term target (set in 2011) is to reduce NZ's net GHG emissions to 50% below 1990 levels by 2050 so the indicative reduction schedule in table 1 (page 17) (to achieve a 100% reduction in net emissions by 2050) is much tighter than that.

Being seen to do our fair share

The second critical question is ensuring that we are doing, and are seen to be doing, our fair share. If NZ adopted an INDC that would result in near zero net GHG emissions from NZ by 2050, we would be regarded by other countries as doing our fair share.

Recommendations

Government needs to:

1. Agree and achieve appropriate post-2020 reduction milestones.
2. Put major effort, working with stakeholders, into planning long-term emission reduction pathways and designing and implementing policies to ensure appropriate investments occur in the energy (including transport), agriculture and forestry sectors.
3. Set quantitative milestones (such as those in table 1) with clear policies, and the right investment decisions will result in NZ having close to zero net GHG emissions by 2050;
4. Set policy stability which requires a cross-party accord backed by consumers, businesses and voters.

The views expressed in this article are the author's alone and do not purport to represent the views of ECO.

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Soil and Health Association of NZ
South Coast Environment Society
Students for Environmental Action
Surfbreak Protection Society
Sustainable Otautahi Christchurch
Sustainable Whanganui Trust
Te Aroha Earthwatch
Thames Coast Preservation and Protection Society
Wellington Botanical Society
Wellington Tramping and Mountaineering Club
West Coast Blue Penguin Trust
West Coast Environment Network
Whaingaroa Environment Centre
Wildlife Society, NZVA
Yellow Eyed Penguin Trust

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