



WWF

NEW ZEALAND

100%
POSSIBLE

100% POSSIBLE: A CLEAN GREEN
FUTURE FOR NEW ZEALAND

OVERVIEW

OUR CHANGING CLIMATE



Our world is changing in ways we have never seen before. The planet is warming faster than in any time in human history – in fact 2001-2010 was the warmest decade on record. Every country in the world, including New Zealand, is affected by climate change.

0.9°C
INCREASE IN NZ
TEMPERATURES
OVER THE PAST
100 YEARS

High temperatures not only mean droughts and heat waves. A warmer atmosphere also carries more water vapour – the fuel for storms. Climate changes, such as melting of polar ice sheets, are coming faster and harder than scientists predicted just a few years ago. Combined with stormier seas, New Zealand's coast is at high risk from sea level rise.

landscapes, a small smart population, abundant clean energy potential, and a big reputation. We can respond and adapt in ways that protect our families, our jobs and the planet. It is 100% possible we can play our part to address climate change and thrive.

16CM
RISE IN NZ
SEA LEVEL
SINCE 1900

But we are also a lucky country. We have beautiful

People, businesses and government need to act now. Together we can shape the future we want.

FIND OUT MORE



COUNTING THE COSTS

If we don't act, the overall costs and risks of climate change will be equivalent to losing at least 5 per cent of global GDP each year, now and into the future. In contrast, the costs of actions to reduce emissions can be limited to around 1 per cent of global GDP each year.

Storms and floods over the past 20 years have cost New Zealand billions. Our farmers depend on reliable weather patterns but science tells us to expect more drought to the east and more heavy rain to the west. Higher, stormier seas will threaten coastal properties.

The last time temperatures were 2°C warmer – before the last ice age – sea levels were 75m higher than present.

Doctors have described climate change as the biggest global health threat of the 21st century.

Without action, a changing climate could mean more disease, drought, food shortages, mass migration and possibly war.

Our native species also suffer when their ecosystem balance is disrupted. For example, plants and animals in alpine areas have nowhere to go when their habitat shrinks.

CLIMATE
IMPACTS



**\$560
MILLION**
INSURANCE COST
OF STORMS AND
FLOODS IN NZ
SINCE 2000

TIME TO CHANGE TRACK

If we carry on as usual, we are on track for global temperature rises of up to 4°C above pre-industrial levels. For a safe climate future we need to keep the increase to less than 1.5°C.

Global carbon emissions need to peak by 2015 and then drop steadily – that's only a few years away but progress is painfully slow.

Scientists can't say exactly when we might lose the chance to reverse the worst of these changes. The one thing that is certain about climate change is uncertainty.



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1-2M

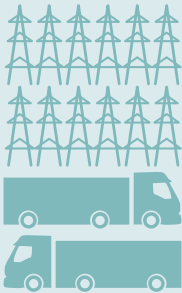
LIKELY RISE
IN SEA LEVELS
BY 2100. NZ
GOVERNMENT
ADVICE IS TO
PLAN FOR 50CM

NEW ZEALAND AND THE BIG PICTURE

We are a small country but our carbon footprint per person is a huge size twelve. Our greenhouse gas emissions are growing rapidly. In 2009 we produced about 20 per cent more emissions than in 1990, while the UK reduced theirs by around 19 per cent.

NEW ZEALAND'S GREENHOUSE GAS EMISSIONS

45% ENERGY



47% AGRICULTURE



6% INDUSTRY



2% WASTE



Per head of population New Zealanders emit nearly twice as much greenhouse gases as the British and almost five times as much as the Chinese.

We are the fifth highest emitters in the developed world.

About half our greenhouse gas emissions come from farming and the other half from energy – mostly from power plants and transport. While agriculture is often blamed for our high emissions, the energy sector is driving our emissions higher, faster and has climbed three times as fast as agriculture since 1990.

Like all developed nations, New Zealand is responsible for getting global emissions under control, and helping to protect our Pacific neighbours from the sea level rises that threaten many small island states.

We are also global citizens and members of the United Nations group that decides the international response to climate change – the UNFCCC. Together these countries must cooperate and forge a deal that prevents runaway climate change.

This begins with tackling our emissions at home.



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ARE WE DOING ENOUGH?



As New Zealanders we love our environment. But are we good at taking care of it? Thousands of us recycle, fit energy efficient light bulbs and take the bus, but the urgency of tackling global climate change means we can't do it alone.

The combined effect of all our personal actions should help cut New Zealand's carbon footprint by about a million tonnes of CO₂ a year. But instead our emissions have increased by over 11 million tonnes since 1990.

It's the decisions by government and the actions of big industry that make the biggest impact.

Our country's pledges for future reductions are far below what scientists say is required to slow climate change, and even then, it looks like New Zealand will fail to meet our own targets.



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80%
EMISSIONS CUTS NEEDED BY 2050

50%
PLEGGED BY NZ GOVERNMENT BY 2050

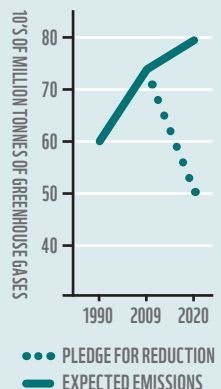
SO WHAT ARE WE DOING WRONG?

We have targets, but we don't have a plan on how to get there. Our Emissions Trading Scheme is the backbone of our emissions reduction plan but it is too weak to really work. The rules are loose and allow big polluters to gain free credits whilst avoiding their responsibilities.

Our government has missed some of the low hanging fruit that has helped citizens in other countries lower their emissions, such as: standards to make

our car fleet more efficient; investing more in public transport; allowing small scale renewable electricity to be sold to the national grid; phasing out old style light bulbs.

Lack of any determined action to adapt our economy to the low carbon global future is holding us back.



POSITIVE
FUTURE

THE KIWI ADVANTAGE

We have big natural advantages – and more opportunities than many other countries to make the most of changing the way we do things.

Today, about two thirds of our electricity comes from renewable energy – hydro power – but this used to be over 90 per cent in the 1970s and 80s. We have among the best wind energy potential in the world which is mostly going untapped. We have abundant sunshine for heating water and for converting into electricity. Our ancestors cooked kai in the steam from the earth – we have world-class geothermal energy resources.

While we use a lot of land to grow our export dollars, our population is small so we have plenty to spare. Land that is not needed for growing food and doesn't have high conservation value can be planted with trees,

providing a viable and cheap source of bio-diesel. Bio-diesel is needed to keep our freight moving, while domestic cars can be powered by clean, green electricity.

Most New Zealanders live in a few big towns and cities, making these the best places to tackle our transport emissions.

Replacing cars with improved public transport in cities makes them cleaner, healthier, cheaper places to live.

Building more public transport now is a sensible investment – as more people move to cities, live closer to work, and drive less congestion will drop and we'll get our cities moving again.



100%
**OF TRANSPORT
FUELS CAN BE
CREATED
SUSTAINABLY
FROM WOOD
BY 2030**

2/3
**OF OUR
ELECTRICITY
COMES FROM
RENEWABLE
POWER**



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LOW CARBON, HIGH RETURNS

Protecting our global ‘clean, green’ reputation, which provides so much value to our goods overseas, is more important now than ever. Competing with other progressive low carbon economies requires smart thinking and making the right moves now to protect our future.

Living up to our 100% Pure brand by developing renewable energy could make us attractive to international businesses and investors and generate new jobs in clean industries.

The future of agriculture will rely on developing techniques for low emissions farming. Developing these solutions here would give us a huge market advantage and provide knowledge we can export too. Failure to adapt could threaten our leading export earner.

Making our own bio-fuel could protect us from the ever increasing oil price spikes that send petrol prices at the pump soaring. Studies show food prices also rise as the cost of transport does. If we don’t need fossil fuels, why pay the huge price of addiction?

Allowing Kiwis to make money by selling clean power to the grid – a practice adopted in most other countries – will inspire us to invest in renewables for our homes like roof top solar panels.

POSITIVE
FUTURE

3X
NEW ZEALAND'S
CURRENT TOTAL
ENERGY NEEDS
CAN BE SUPPLIED
BY WIND



© Solar City

\$150
BILLION
INVESTED

IN RENEWABLE
ENERGY IN 2009
WORLDWIDE



WHAT CAN I DO?

New Zealand could be a powerhouse of clean energy – using the sun, wind, wood and underground heat we have in abundance to meet our energy needs into the future.

If we harness these resources, we'll make progress on reducing our emissions, make good on international promises and meet our moral need to act on climate change. We can stand up tall behind our clean, green brand and be proud that we are helping to shape a safe and secure future for New Zealanders.

WE CAN'T DO IT WITHOUT BIG ACTIONS FROM THE GOVERNMENT - IT'S UP TO US TO SUPPORT THE IDEAS THAT WILL GET US BACK ON TRACK:

1. Support a national switch from fossil fuels to renewable energy; get behind clean energy proposals in your local area too.
2. Save energy at home, and at work. The more careful we are with our energy use, the easier it is to meet our needs from clean green energy.
3. Share your vision for New Zealand's future with your family and friends. Spread the word online. Get writing to your local newspaper, your MP and even the Prime Minister.



FOR MORE WAYS TO SUPPORT A CLEAN GREEN FUTURE FOR NEW ZEALAND GO TO WWF.ORG.NZ

	<p>Why we are here To stop the degradation of the planet's natural environment and to build a future in which people live in harmony with nature.</p> <hr/> <p>www.wwf.org.nz</p>
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