

# New Zealand's 2020 Emissions Target













“Climate change is a diabolical policy problem. It is harder than any other issue of high importance that has come before our polity in living memory.”

– PROFESSOR ROSS GARNAUT, *Author of the Garnaut Climate Change Review*

Hon Dr Nick Smith Minister for Climate Change Issues

# Kyoto Protocol

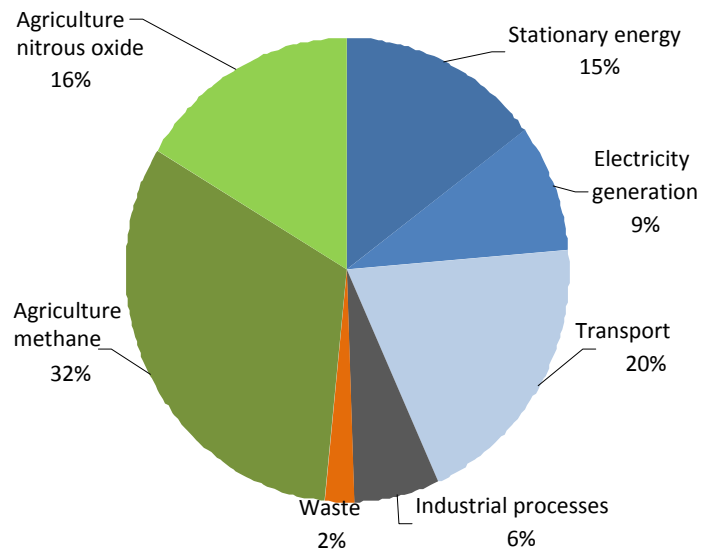
- Agreed in 1997
- Relative to 1990 levels
- Covers 2008 – 2012
- Allows forest sink credits
- Tradability of Kyoto units (AAUs, CERs, etc)

Country	Kyoto Protocol commitment, 2008-2012, relative to 1990 levels
<i>Annex 1 aggregate</i>	-5.2%
 European Community	-8%
 USA *	-7%
 Canada	-6%
 Japan	-6%
 New Zealand	0%
 Ukraine	0%
 Russia	0%
 Norway	+1%
 Australia	+8%
 Iceland	+10%

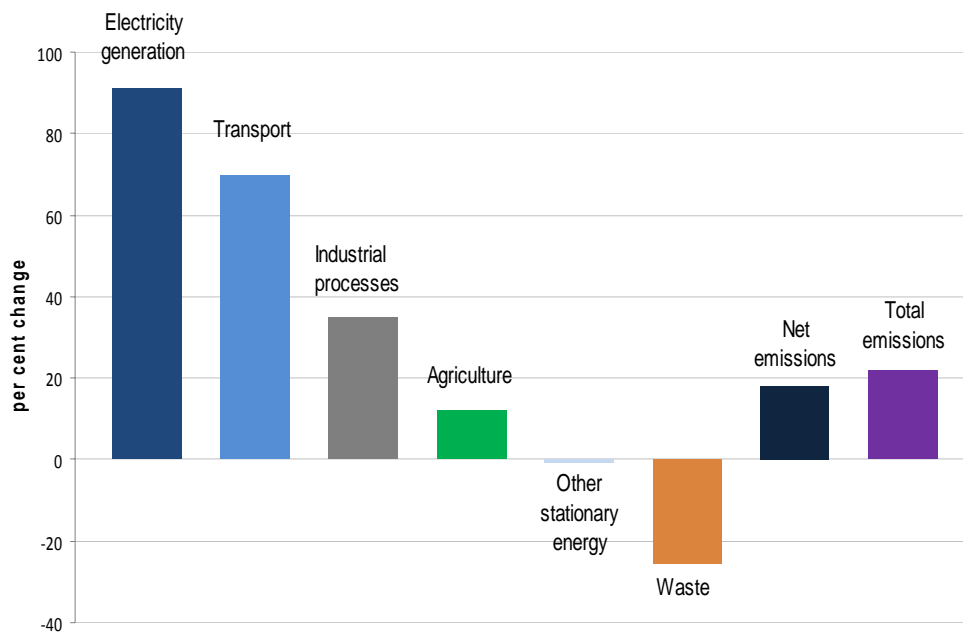
\*USA did not ratify this target

# New Zealand's Emissions

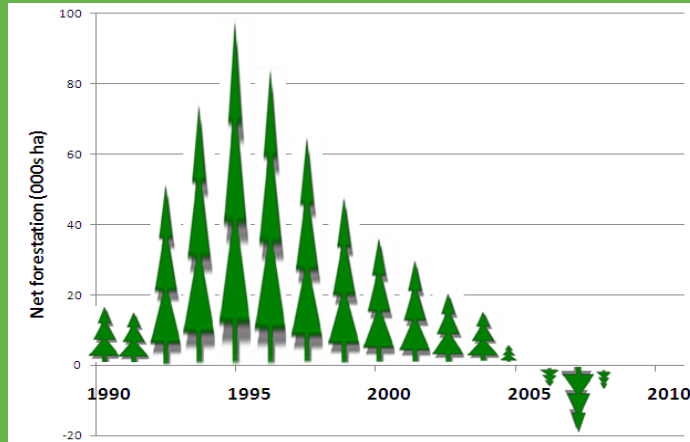
New Zealand's Gross Greenhouse Gas Emissions: 2007



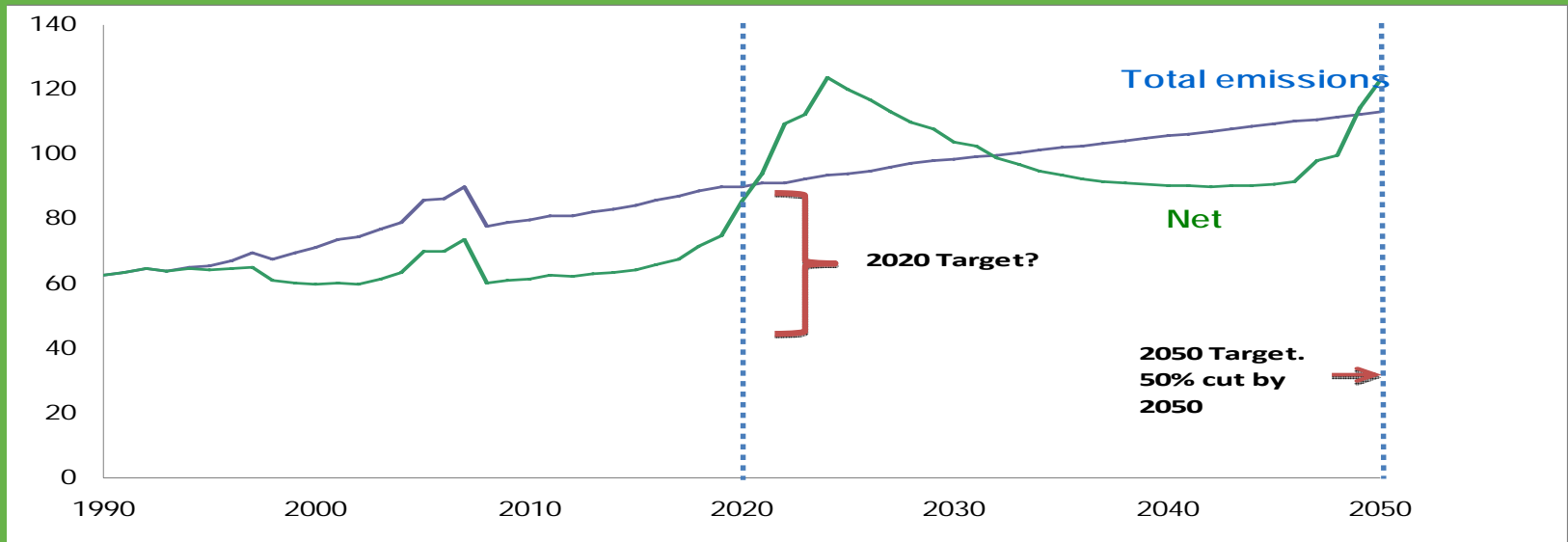
Percent emissions change by sector, 1990-2007



# Forests and New Zealand's Emissions



*Net forestation  
1990-2007*



*New Zealand's total and net greenhouse gas emissions and removals (historical and projected), 1990-2050*

New Zealand's 2020 Emissions Target

# Government Policy on Climate Change

## Science requires response

- Greenhouse gas pollution poses real and significant risks to the global climate system and requires action now

## Balanced approach

- NZ needs to carefully balance the environmental risks of climate change with the economic costs of reducing emissions

## Post-2012 pact

- NZ must work hard to secure a post-2012 pact to reduce global emissions in which we commit to do our fair share

## Pricing carbon pollution

- A cap and trade emissions scheme that puts a price on carbon pollution and rewards sinks is the most efficient means of NZ reducing emissions

## Complementary measures

- Complementary initiatives will be required to help NZ homeowners, farmers and businesses adapt to climate change and to constraints on carbon pollution

# Emissions Trading Scheme

- Primary policy tool to put a price on carbon pollution
- Working on a modified Emissions Trading Scheme
  - Awaiting report from Special Select Committee
  - Talks with Labour on a bipartisan approach
  - Talks with Australia on harmonisation
  - Amendments in line with National's 2008 ETS policy
- Critical issues
  - Timing of sectors' entry
  - Allocations for trade exposed industries
  - Price and trading constraints










# Setting a 2020 Target

Advice required: Scientific  
Economic  
Foreign affairs  
Environmental

Facts to consider: Impacts of climate change  
Intergenerational equity  
Costs to households and businesses

Purpose of public consultation: Outline the issues  
Discuss the options  
Input public views into policy

# Targets of Other Countries

Country	Percentage of world emissions: 2007	Emissions change: 1990–2007	2020 target (adjusted to 1990 base year for ease of comparison, approximate only)	2050 target (adjusted to 1990 base year for ease of comparison, approximate only)
DEVELOPED COUNTRIES				
 New Zealand	0.2%	22.1%		Reduce emissions by 50% below 1990 levels.
 Australia	1.4%	30.0%	4% reduction unilaterally; 14% reduction conditional on efforts by major economies; about 24% reduction conditional on adequate global agreement.	Reduce emissions to 50% below 1990 levels.
 Canada	1.9%	26.2%	About a 3% reduction.	A reduction of about 50–65% on 1990 levels.
 EU-27	13%	–9.3%	20% reduction unilaterally; 30% reduction conditional on other countries' efforts.	
 Japan	3.5%	8.2%	8% reduction (domestic reductions only).	Reduce emissions to 55–80% below 1990 levels.
 USA	18.3%	16.8%	Return to 1990 levels (US Administration target).	Reduce emissions to about 80% below 1990 levels.
DEVELOPING COUNTRIES				
 China	20.3%	120.5%	Countries have agreed to protect the climate system on the basis of equity and according to their differing responsibilities and capabilities. Developed countries have agreed to take the lead. As developing countries' emissions and wealth grow, they will need to increasingly take on a share of the global effort.	
 India	5.1%	79.9%		
 Brazil	2.7%	54.7%		

# Setting New Zealand's Target

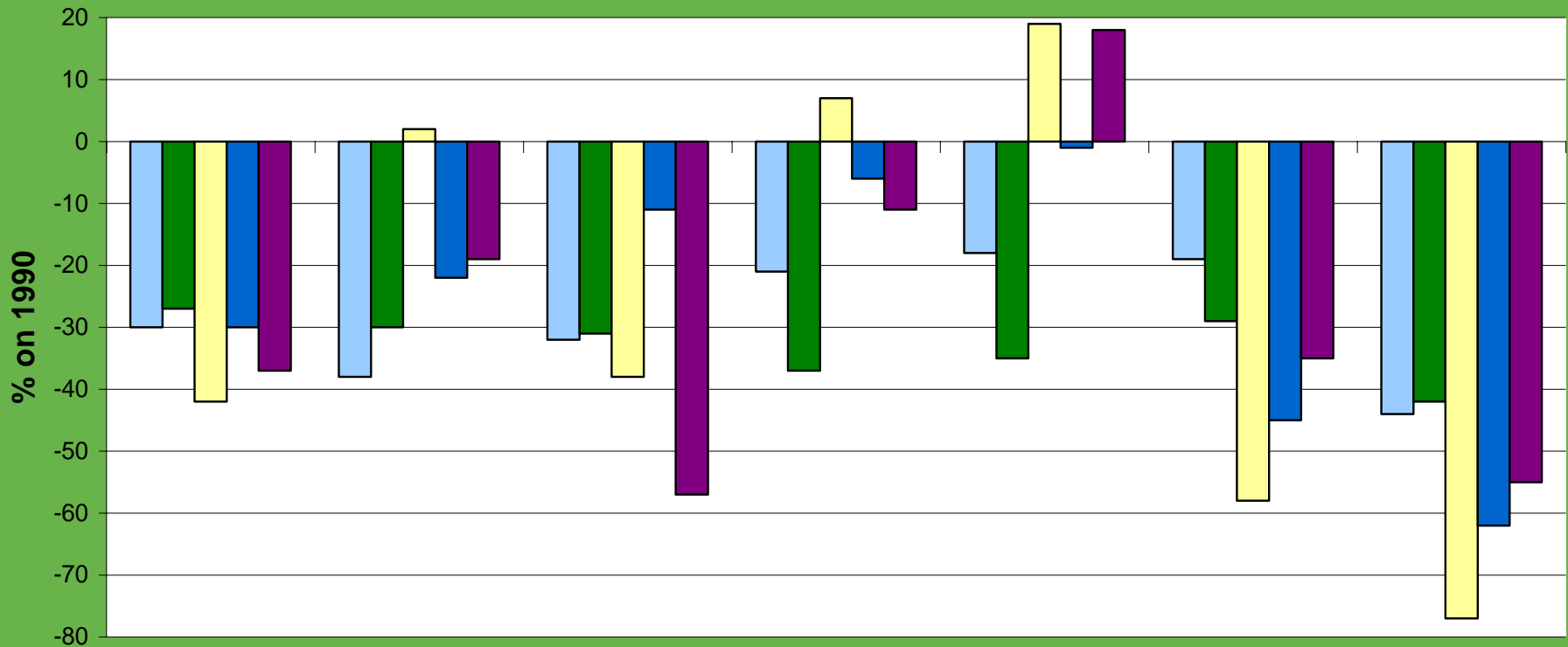
<b>Reasons for modest NZ 2020 target</b>	<b>Reasons for ambitious NZ 2020 target</b>
<p>Low GDP per capita among Annex I Parties</p>	<p>11<sup>th</sup> highest emissions per capita globally</p>
<p>High cost of reducing emissions due to unusual emissions profile</p>	<p>Vulnerability of the New Zealand economy to impacts of climate change</p>
<p>2nd highest population growth since 1990 among Annex I Parties</p>	<p>Importance of New Zealand's "clean and green" brand</p>

# Measures of comparable effort

- There are various measures proposed for determining 'comparable effort' between countries, including:
  - **GDP per capita.** NZ makes smaller reductions than average, reflecting our relatively low incomes;
  - **Early action (1990-2005).** NZ makes slightly larger reductions than average, reflecting growth in emissions since 1990;
  - **Population.** NZ makes smaller reductions, reflecting population growth since 1990; and
  - **Cost based measures - Equal marginal abatement costs and Equal costs in % GDP.** NZ makes smaller reductions than the average for Annex 1 countries, reflecting relatively high costs of reducing emissions.

# Five possible criteria

Annex I 30% below 1990 (excl.LULUCF)



EU: -28\* & -34\*\*  
 USA: +1\* & -22\*\*  
 Japan: -13\* & -33\*\*  
 Canada: +8\* & -13\*\*  
 Aus+NZ: +19\* & -5\*\*  
 Russia: -19\* & -38\*\*  
 Ukraine: -43\* & -57\*\*

□ GDP per capita (2005)      ■ Early action (1990-2005)  
 ■ Equal marginal abatement costs      ■ Equal costs in % of GDP

\* most favourable criterion    \*\* average of 5 criteria

# Economic modelling

- NZIER & Infometrics commissioned to study macroeconomic impacts of different 2020 targets
- Scenarios include:
  - Different target levels;
  - Different emissions prices;
  - Availability of international trading in emission units; and
  - Whether or not trading partners face a price on emissions
- Modelling will show estimated macroeconomic effects of different targets

# How do we set a 2020 Target for New Zealand?

