The Green Stimulus Package

Green
Green Party of Aotearoa New Zealand

What a Green Party Government would be doing right now to create jobs, stimulate appropriate economic activity and save the planet.

1. Introduction

What is the Green New Deal?

America was in deep economic trouble in 1933 with closed banks, high unemployment, falling commodity prices and worse on the way. President Roosevelt responded with the "New Deal". It was a new social contract between the Government and the people, and a programme designed to give relief to the unemployed, reform business and financial practices, and promote economic recovery.

The New Deal is best remembered for its major spending by the Government. Capital works and infrastructure programmes were designed to provide work, stimulate economic activity and provide a socially fair basis for the future economy. Other measures reformed banking and finance regulations, supported trade unions, provided for social welfare programmes, stimulated education and creative endeavours, and supported many individual industries. Confronted with a myriad of inter-linked problems, President Roosevelt embarked on an integrated programme of activity that aimed to address them all more or less simultaneously.

New Zealand in 2009 faces a broadly similar situation. The developed world is in the grip of a financial crisis, brought on by the collapse of the speculative economy. Asset bubbles have burst and left debt levels hugely out of kilter with the real value of assets and the supply of credit has dried up as a result. The underlying assumptions of the banking and financial sectors have been proved wrong, and ordinary people are paying the price as sales and then jobs fall as a consequence.

But New Zealand (and the world) also faces crises in the way we interact with our natural environment and in the energy that we use. At the most urgent level, we face the imminent prospect of climate change. Unless we undertake an urgent and major reduction in our net emission of greenhouse gases, we face unstoppable catastrophic effects. These are hard to predict precisely but, for example, *New Scientist* recently speculated on the likely consequences of a 4 degree rise in global temperatures (which is expected this century on current trends) and suggested these will include leaving most of the earth's landmass uninhabitable. It will either become desert or suffer from extreme flooding and other weather events, with remaining land (including New Zealand) needed for intensive food production and human habitation. Other environmental problems at or approaching critical level are freshwater availability and pollution, the state of the world's oceans, fisheries depletion and shortages in food supply.

The other massive challenge facing us in the foreseeable future is the end of cheap oil. Even the oil companies now concede that 'peak oil', at least for conventional oil, is imminent. Our consumption of oil is much greater than the discovery of new supply. This resource, that we use for virtually all transportation, and other uses from plastics to food production, will rapidly become much more expensive, causing us to rethink many of the ways we currently live.

What is different from the Roosevelt era of the 1930s is that the environmental crisis is directly contributing to the economic crisis. We are hitting the ecological limits of oil availability, climate, freshwater and the productivity of the oceans, and unless we address those issues the economic crisis will not go away.

The Green Party says that New Zealand needs to approach these inter-linked crises in an integrated way just as Roosevelt did in the US in the 1930s. This means that when we create infrastructure, we need to make sure that the future economy will be sustainable, that it minimises climate change, and that it doesn't count on a plentiful supply of cheap oil. The jobs that are created and the economic activity stimulated need to build in this direction and to promote social justice.

The Green Party is working on a programme of legislative, environmental, economic and social actions that could respond to the multiple challenges that we face at the same time. It would also redefine the relationships between Government, people and environment. We hope, together with interested New Zealanders, we can persuade the Government to adopt these measures, in the interests of all Kiwis, both now and in the future. We're also ready to work across Party lines to support a Green New Deal-type programme.

What about the proposed stimulus package?

The measures suggested in this stimulus package are a first bite at the Green New Deal apple. They represent a range of measures totalling $3.3 billion over 3 years, along with a shift in the direction of committed transport funding. This is about 0.5% of GDP and small compared with the stimulus packages of other countries. The measures are balanced between urban and rural areas, are "shovel-ready", and will move New Zealand towards the sustainable economy that future generations need. In contrast, the solutions proposed by National and Labour will, for the most part continue the kinds of economic activity that will simultaneously move the country away from sustainability and stoke the fires of the next great financial collapse.

That's not to say the Green Party is against all of the Government's stimulus actions. Indeed we've supported the small and medium sized enterprise relief measures, for example, but pointed out that there are other steps that Government could

have taken. We have also offered our enthusiastic support for the national cycle network, which has been longstanding Green Party policy. We also acknowledge that the Government has expressed its intention to fund a home insulation programme.

There are many aspects of the Green New Deal that are not included in this limited stimulus package; this is just what we would do right now. While the Government's "rolling maul" of measures seems to have collapsed, the Green Party will continue to develop and announce policy to add to the Green New Deal.

Benefits

Our conservative calculations are that this package would save or create almost 18,000 jobs (FTE for 1 year) directly and almost 43,000 in all. These calculations ***exclude*** the 40% extra jobs from investing in transport efficiency instead of motorways. Other benefits are indicated here, but we have not included the very substantial saving on unemployment benefit – almost half a billion dollars in relation to 42,602 jobs.

2. Executive Summary of the Green Stimulus Package

This package of measures would first and foremost provide new jobs (or help retain existing ones) and stimulate the economy in a helpful way, while starting to meaningfully address some of the pressing environmental problems that we face, including climate change, and reducing social inequalities. It exemplifies classic 'green thinking' in that it provides win-win solutions.

This package includes measures in:

- Energy Efficiency
- Transport Efficiency
- Waterways Protection
- State Housing
- Community Sector Initiatives

Where possible we have costed measures and indicated their likely benefits for jobs and the economy, as well as their contribution to the environment and to social goals, including the reduction of inequalities. In other areas this degree of analysis is not yet possible, but we have indicated directions for future immediate further analysis and investigation.

Except where otherwise stated, the projects set out in this Green Stimulus Package are ready for immediate implementation.

What are the limitations of this proposed stimulus package?
When preparing its budget and costing policy the Government has access to a range of economic planning tools by virtue of being Government, to which the Green Party does not have access. While we have used all means at our disposal to estimate the cost of the measures that we propose, and the number of jobs that we expect them to create, these are approximations, as are any estimates of flow-on effects for the economy from these projects. We hope that if Government agrees to take up any of these measures, the Green Party will gain access to officials and other economic analysis resources to enable us to derive more accurate assessments of the costs and benefits of these ideas.

The data used in this package is drawn or derived from various sources, and work is continuing to ensure its integrity.

Forestry

Forestry deserves special mention as an important area not currently included in this Green Stimulus Package. Afforestation is an incredibly important set of activities that would help to stabilise erosion- and flood-prone land, absorb carbon dioxide, create higher value resources for export and domestic industry, create habitat for biodiversity, and create a significant number of jobs in rural regions likely to be badly affected by the economic downturn. There's no doubt that afforestation can play an important role in a government's stimulus activities, but it needs further discussion with the forest industry, and the Green Party intends to announce a proposal for a forestry stimulus package in due course.

Executive Summary of the Green Stimulus Package

Project	Cost (3 years)	FTE Jobs/year Direct => Total	Economic Benefits	Social Benefits	Environmental Benefits
Energy Efficiency • home insulation • 230 schools upgrades • business upgrades • crown loans • training	$ 164 m 7.7 m 30 m 75 m 20 m	1195 => 1400 40 => 90 156 => 350 390 => 874	• 2:1 savings, health budget • higher business profits • Crown loans paid back • More skilled work force • Lower carbon liability in future • Improved energy security	• Improved health • Fewer lost school and work days	• Cleaner air • Fewer new power stations needed • Lower carbon emissions
Transport Efficiency	$1 billion* (shifted)	40% more jobs per $1m than motorways	Lower per capita transport costs	• More transport choice • Better transport safety • Improved health from active modes	• Cleaner air • Lower carbon emissions
Protecting Waterways	$600m	2176 => 4500	• Protection of clean, green brand • Market access • Enhanced tourism (e.g. fishing) • Reduced flooding	• Improved aesthetics • Recreational opportunities • Respects Maori values on water	• Biodiversity: habitat for birds and native fish • Water quality
6,000 State Houses	$2 billion	10400 => 28000	• Lower energy bills • Rents to HNZ • Improved asset value	• Less homelessness • Improved health	
Community Economic Development • waste minimisation • community housing • other	$439m	(est.) (est.) 3450 => 7388		More resilient communities	

Standard multipliers are used to estimate flow-on jobs from direct jobs. Jobs are FTE for one year.
*This is not new investment but is redirected from poorer quality spend elsewhere

3. International Context of the Green New Deal

Many governments, international agencies, economists, leaders and academics are talking about a Green New Deal. In fact the New Zealand Government is almost a lone voice in *not* doing so!

United Nations Secretary-General Ban Ki-moon recently said of the food, energy, climate, and economic crises that "if we are smart about it, if we work at their inter-connections, solutions to each can be solutions to all."

The UN is calling on the Developed World to move in step and invest at least one per cent of its gross domestic product (GDP) into the five key sectors of a global Green New Deal. These areas specifically include:

- raising the energy efficiency of old and new buildings
- investing in renewable energies (wind, solar, geothermal and biomass)
- driving a shift to more sustainable forms of transport (hybrid vehicles, high-speed rail, and bus rapid transit systems)
- restoring the planet's ecological infrastructure (freshwaters, forests, soils, and coral reefs)
- investing in sustainable agriculture especially organic production.

The measures don't just stop at the Developed World. The UN calls for the First World nations to direct their aid efforts to help poorer countries *while* greening their economies. The principles of a Green New Deal apply just as much to our South Pacific neighbours as they do here in New Zealand.

So what specifically are other countries doing to implement Green New Deal initiatives?

Around the world, governments have allocated more than US$430 billion in fiscal stimulus to key green investments. Europe, China, South Korea, and the USA are leading the way with huge investments in rail, ecosystem services, renewable energy, and improved energy efficiency.

US President Barak Obama has promised to create five million new 'green collar' jobs making solar panels, fuel-efficient cars, and wind turbines. The US is seeking once and for all to reduce its dependence on imported oil from the Middle East. As a point of comparison, the US spends 3% of its GDP importing oil each year. New Zealand spends almost 5% of our GDP on foreign oil. Our economy is more vulnerable to spiking oil import prices than the US. Why are we standing still while America launches its green energy revolution?

In the UK, both Gordon Brown and David Cameron are hailing green jobs as the future source of employment for millions of people now facing recession and likely unemployment. The focus of their spending to date has been on energy efficiency measures along with incentives for renewable energy investment.

The potential savings from energy efficiency initiatives like those proposed in the UK are huge. Denmark provides a brilliant case study. In the 35 years to 2007, both the Danish and New Zealand economies have doubled in size. Over that same period, Denmark's total energy consumption grew by 7% while our energy consumption increased by about 90%. The reason for the difference? Denmark increases energy efficiency standards year-on-year, driving innovation, saving consumers money, reducing greenhouse emissions, and creating a world-leading wind turbine industry—where we now buy most of our wind turbines today.

In California, similarly strong energy efficiency standards have enabled Californian households to redirect money they'd otherwise spend on electricity and petrol into more productive sectors of the economy, creating 1.5 million new jobs since 1972.

Meanwhile, Mexico is now employing 1.5 million people to plant and manage forests. China has created the world's biggest solar energy industry from scratch in just a few years. Germany has leapt from being a fast-follower to a leader in renewable energy by giving people incentives to install solar panels in their homes and employing hundreds of thousands in green collar jobs as a result. Japan now offers zero-interest loans for environmentally friendly companies to spur the creation of one million new jobs in green businesses.

And then there's South Korea. South Korea will invest $36 billion over the next four years in two million new energy-saving houses, green rapid transit networks, and a nationwide clean up of the country's rivers. Their initiative will add a million new jobs in an economy that, like ours, is falling into recession.

Well known conservative commentator Thomas Friedman contends that destroying our biodiversity to fuel unregulated economic growth is like burning the Mona Lisa to cook dinner. When will our Government understand the connection of the natural environment to our economic livelihood?

4. Components of the stimulus package

4.1 Energy efficiency

We can hugely increase our energy efficiency just by building on successful programmes we have now. Every unit of energy we save through greater efficiency reduces greenhouse emissions; and improves energy security, whether by limiting demand for oil or limiting need for new power stations.

The Government has cancelled the Green Homes Fund for $1billion that we negotiated with the previous government, but we have been working together on a replacement scheme. We suggest current funding should be ramped up from $50m in the first year to $100m in the third as we build capacity . This additional $164m over three years would create 1195 direct one-year new jobs over that time. When the sector multiplier is applied that becomes 1400 jobs across the whole economy. However, we suspect this multiplier includes only jobs in the supply industries. Along with jobs and energy savings we get better health in warm, dry homes, better education outcomes as children with asthma spend less time in hospital.

Last term EECA replaced old coal boilers in 31 schools with modern boilers burning wood waste. At the same time they checked the energy efficiency of the schools and improved it. School operating costs went down, leaving more to spend on education, local air quality improved without the coal particulates, and it provided an educational opportunity for the children. There are 600 more schools needing this service, and we could do 50 in the first year, followed by 90 a year after that. There are significant improvements to air quality (with consequent health benefits) and reduction of greenhouse gas emissions.

These projects will all pay for themselves within the lifetime of the investment, but tend not to happen because funding for capital improvements has to come from schools themselves, whereas the energy bill is paid by a Ministry operating grant. The inability to transfer money between capital and operational budgets is a major obstacle to sensible energy efficiency.

The current Energy Intensive Business programme provides grants to businesses for energy improvements that will pay for themselves over their lifetime, but don't meet the firm's threshold for capital investment. The Australian government has just announced $200m for this kind of grant – New Zealand spends a meagre $2.3m. We propose expanding that programme, which can never fund all the good proposals it receives, with an additional $30m over three years, creating a further 156 direct jobs, multiplying to 350 total jobs.

The current Crown loan scheme provides capital for local government at no interest for investment in energy efficiency. There is scope to greatly expand this – one example is to convert all street lighting as it needs replacement to high efficiency lighting which pays back its capital cost well within the lifetime of the investment; after that, there are ongoing benefits for rates bills.

There are hospitals and prisons whose energy efficiency could also be improved with Crown loans, employing workers at the same time.

There is a shortage of trained people in energy efficiency which ranges from the trades level (builders, plumbers, electricians who daily make decisions that affect energy use) through industrial plant managers and auditors. A recession is a good time to increase skills training opportunities as an alternative to a paid job and to ensure we have the capacity to step up when the recession ends. We envisage investing $20m over three years in supporting access to Polytech courses ranging in length and level, with the shorter simpler ones able to start in July 2010. This will create negligible jobs initially, but improve skills and productivity in the medium term.

Overall the energy efficiency projects will invest just under $300m over three years, and create 1781 extra jobs, which become 2714 with flow on effects, over the next three years

4.1.1 Home Insulation

How much will it cost?	$164m over 3 years
Will it produce any savings (increased efficiency, redirected spending etc)?	Lower energy bills; 2:1 savings in health costs
How many jobs could we expect this to create?	1195 FTE direct; multiplying to 1400 total (I year FTEs over 3 years)
What flow-on economic impacts will this have?	Increased workforce productivity through fewer sick days
How quickly could it start?	Immediately, but would ramp up

4.1.2 Energy Efficiency Upgrades Of 230 Schools (Coal Boilers Converted to Wood Waste)

How much will it cost?	50 School retrofits first year followed by 90/yr over next 2 years is $1.7m 09/10 followed by $3m/yr for next 2 years.
Will it produce any savings (increased efficiency, redirected spending etc)?	The modest savings in energy and cost are sufficient to justify the boiler upgrades purely on economic grounds, without considering social or climate benefits, which also have quantifiable cost savings. MoE spending gets redirected from energy overheads to frontline education after simple payback period.
How many jobs could we expect this to create?	40 FTE direct jobs, multiplying to 90 FTE jobs (5.2 FTE/$m; multiplier 2.24).
What flow-on economic impacts will this have?	More efficient spend in education. Schools, hospitals, other govt spent approximately $371 million on gas, electricity and coal in 2004. Upgrades that saved 5% of energy costs would provide $19 million for other uses
How quickly could it start?	Immediately, and ramp up

4.1.3 Increased Grants To Business Through The EECA Programmes To Install Efficiency Measures With A Positive Net Benefit, But Not Meeting The Current Investment Hurdles In Terms Of Pay Back Time

How much will it cost?	$10m per year for 3 years
Will it produce any savings (increased efficiency, redirected spending etc)?	Yes. An example is Tegel Foods Ltd has worked with the government under the Energy Intensive Businesses programme to improve the efficiency of its New Plymouth plant with the introduction of a heat recovery system leading to annual savings of $110,000 and 600 tonnes of carbon dioxide emissions.
How many jobs could we expect this to create?	156 FTE direct jobs, multiplying to 350 FTE total (5.2 FTE/$m; multiplier 2.24).
What flow-on economic impacts will this have?	Significantly increased productivity

4.1.4 Crown Loans To Public Sector For Energy Efficiency Upgrades (Local Government, Hospitals, Defence Etc)

How much will it cost?	$25m per year for 3 years
Will it produce any savings (increased efficiency, redirected spending etc)?	The Crown Loan programme provides low interest loans to local & central government facilities for energy efficiency upgrades. This is also the key to unlocking other grant monies available from the Electricity Commission which takes a longer view on energy payback. The lack of sufficient Crown Loan funding over recent years has meant millions in hospital efficiency upgrades has not gone forward, the savings of which would have gone straight to front line health costs.
How many jobs could we expect this to create?	390 FTE direct jobs, multiplying to 874 FTE jobs. (5.2 FTE/$m; multiplier 2.24)
What flow-on economic impacts will this have?	An example is the government has granted a $920,000 Crown Loan to Dunedin City Council to improve the energy efficiency of its Moana Pool. The loan funded the installation of a new heat pump which recovered waste energy to heat pool water. In doing so it has displaced the need for around $135,000 worth of gas each year that would otherwise have been used. The system saves around 570 tonnes of carbon emissions each year.

Other priorities for energy efficiency are the development of energy efficient farming practices, and our intention would be to strengthen the MAF project establishing some energy efficiency models and demonstration farms.

4.2 Transport efficiency.

Government recently took $420m from public transport, walking and cycling and allocated it to more new motorways. At the same time they added another half billion of "economic stimulus" money – altogether a billion more for new motorways.

Motorways are the least jobs intensive of transport projects, and make us more dependent on oil with higher greenhouse emissions. A raft of other transport projects will employ far more people and make our cities more liveable, improve our transport choices, reduce our carbon emissions and make us less oil-dependent.

We propose to shift this low quality spending into a range of transport projects, including:

- rebuilding and upgrading rail stations and bus exchanges, so they are people-friendly places, safe, warm, and with other attractions like shops for people while they wait
- increasing the frequency of services and numbers of public transport vehicles to cater for more passengers
- integrated ticketing and timetables to make public transport easy and convenient to use
- increasing and improving cycle lanes and walking paths, especially so the many children who want to cycle to school can do so safely
- and other small safety improvements.

While new rail tracks are high capital with low intensity jobs, as new roads are, we could build the jobs-intensive parts of the Auckland rail tunnel first – the underground stations, which would provide very high employment.

A more diverse transportation system is more flexible and able to respond to local disruptions along with outside shocks. Over the longer term, investment in public transport improvements will lead to lower per capita transportation expenditures, lower fuel expenditures (NZ rank fourth highest in the OECD), lower per capita road accident costs. These savings translate into greater flexibility to spend money in more productive ways. Reducing car dependence also leads to improved health and wellbeing and more efficient land-use patterns which have significant secondary benefits over time.

An example to illustrate the land use impacts of transport: Without a network of public transport facilities, downtown Wellington would look very different. Approximately 36% of Wellington's residents commute to work by public transportation. If each person used a car instead, space constraints would increase the cost of driving due to congestion and constrained parking, which would in turn induce businesses and government offices to reduce the total number of workers in the downtown area. This would reduce the clientele for shops and restaurants, forcing them to spread out to bring in enough customers. Well designed public transport systems allow for more compact development and greater economic benefits from agglomeration. There is now a well established relationship between increasing density and productivity of a workforce.

The environmental benefits are as follows:

- Better air and water quality
- Less noise pollution
- Lower CO_2 emissions
- More liveable, walkable, and safer communities

Looking specifically at CO_2 emissions, a person taking a train to work (60 km/day) instead of driving can personally save emitting 2500 kg of CO_2 each year. This compares to CO_2 savings of 10 kg/year for replacing incandescent lights with energy-saving ones or 350 kg/year by eating meat only twice a week rather than four times a week.

Accident-related costs: Greater public transport use reduces roadway-related costs—traffic enforcement, emergency services
Healthcare: The availability of public transportation can reduce costly duplication in transportation services.
Enhancing mobility: Public transport provides the services for students to travel safely to schools and universities giving them independence of movement. Our aging population (50% of the population will be over 65 in 2050) will be more reliant on public transport to maintain their mobility into old age. Such services represent a lifeline for the elderly, linking them with family, friends, and their communities. In addition, close to 570,000 adult New Zealanders are affected by a disability which severely limits their ability to drive. As such, public transport provides vital mobility options for these people.

4.2.1 Upgrade And Extension Of Existing Public Transport Facilities In Main Cities - Stations, Bus Interchanges With Associated People-Friendly Facilities; More Services (More Buses And More Frequent Use Of The Existing Ones; Integrated Ticketing

How much will it cost?	All GND transport proposals are fiscally neutral. In 2009/10, 20% of the NLTF would be spent on alternatives to roads. This amounts to $564 million of which, $312 million is already committed by the Fund. This would leave $252 million of new spending for the year. This amount of new money rapidly grows to peak at 67% of the NLTF by 2013/14 or $1.8 billion.
Will it produce any savings (increased efficiency, redirected spending etc)?	There is a direct relationship between public transportation use and petroleum conservation. For every passenger kilometre travelled, public transportation is, at least twice as fuel efficient as private automobiles.
How many jobs could we expect this to create?	Investment in public transport, active transport and other alternatives to roading is at least 40% more "jobs intense" than building motorways. The Victoria Transport Policy Institute give a direct figure of 31.3 FTE employees for every $1 million invested in public transport. [Source: Litman]
What flow-on economic impacts will	When consumers are saving money on transport expenditure, they typically spend it in

this have?	other, more productive areas of the economy. Litman estimates that for every $1 million saved on fuel expenditure, an additional 4.5 indirect jobs are created through the purchasing of additional goods and services. Another 3.6 jobs are indirectly created with every $1 million saved of general motor vehicle expenditure. Longer term, the land use changes enabled by greater urban densities clustered around public transport corridors will realise greater agglomeration benefits and energy efficiency benefits.
How quickly could it start?	Increasing public transport services could be implemented rapidly. Implementing public transport infrastructure projects typically have a 1-5 year delay.

Other priorities for future transport efficiency work in line with this package include:

- create a pool of money in the Land Transport Fund for public transport projects which is 100% funded - ie no local input needed. This would be contestable so only the best projects are funded this way.
- creation of new public transport services in provincial cities after a public discussion process to identify needs
- safe walking and cycling tracks throughout the country led by local government but again funded nationally, on a contestable basis.

4.3 Protecting rural waterways

Our lowland rivers and streams are seriously polluted by livestock effluent and farm runoff. This is not just an environmental loss; it is a threat to our food and tourism markets and our "clean green" brand.

This project will provide jobs for rural unemployed people and support rural businesses such as fencing supplies and plant nurseries. Regional councils would help landowners develop riparian plans and then Task Force Green or Work and Income would provide wages for a work force to implement the plans by fencing and planting waterways. Farmers could contribute some materials or labour; rural businesses such as stock and station agents could provide some sponsorship e.g. of fencing materials. We estimate that New Zealand's streams and rivers could be protected in just nine years at this rate of investment.

Many young people would learn new skills. Farmers would gain from reduced flooding in some areas and more attractive farms everywhere. Biodiversity would thrive with new habitat for birds and native fish.

Environmental impacts will include:

- Stops pollution caused by animals entering rivers
- Helps stabilise stream banks effected by slumping and erosion
- Provides shade and food to encourage aquatic life
- Provides a barrier to catch pollutants that may enter streams
- Provides organic matter for pollutants to bind with - allowing the contaminants to be assimilated and "taken out" of the stream
- Reduces damage caused by flooding
- Enhances the visual appeal of the property

Social benefits include:

- Jobs and job training
- Investment in NZ industry (plant nurseries, fencing)
- Investment in rural communities

The '100% Pure' and 'clean green' brands are incredibly important to New Zealand's two most important industries: tourism and agriculture, meaning that the quality of freshwater is not only important to our quality of life, but has considerable economic importance also.

4.3.1 Providing Funding To Cover/Subsidise Materials And Labour Through Grants Administered By Regional Councils

How much will it cost?	$28 million per year starting immediately
Will it produce any savings (increased efficiency, redirected spending etc)?	No short term savings. Long term benefits of less money needed to clean up our waterways (hard to quantify as this will take generations to happen), less compliance and enforcement cost for regional councils, less litigation cost in the environment court, protecting our billion dollar "clean, green" tourism brand.
How many jobs could we expect this to create?	112 FTE direct jobs, multiplying to 225 FTE total (4 FTE/$m; multiplier of 2)
What flow-on economic impacts will this have?	• Investment in NZ industry (plant nurseries, fencing, labour) • Investment in rural communities (labour, farms) • Protecting our "clean, green" brand.

4.3.2 Taskforce Green Or Work And Income To Cover/Subsidise Wages – Farmers Pay The Cost Of Materials.

How much will it cost?	$172 million per year, it will take an estimated 9 years to complete the project
Will it produce any savings (increased efficiency, redirected spending etc)?	No short term savings. Long term benefits of less money needed to clean up our waterways (hard to quantify as this will take generations to happen), less compliance and enforcement cost for regional councils, less litigation cost in the environment court, protecting our billion dollar "clean, green" tourism brand.
How many jobs could we expect this to create?	2064 FTE direct jobs, multiplying to 4275 FTE total (12 FTE/$m; multiplier of 2.07)
What flow-on economic impacts will this have?	• Investment in NZ industry (plant nurseries, fencing) • Investment in rural communities (labour, farms) • Protecting our "clean, green" brand.

4.4 Housing Construction

A comprehensive housing construction programme that will assist in providing jobs in the building and related trades (desperately needed at present as building activity has declined dramatically, leaving underutilised skills and labour), as well as help meet growing housing need. The current waiting list for HNZC is around 10,000 applicants, and rising. This will seriously dent the list, while providing housing that exceeds WHO standards for health and welfare, meaning happier households and lower health costs for the taxpayer. Having modern, energy-efficient state housing stock reduces demand for water and energy dramatically, protecting the environment and delaying the need to build more capacity.

4.4.1 State House Construction

How much will it cost?	$500m in the first year and $750m in years two and three for a total of 6,000+ new state houses in three years
Will it produce any savings (increased efficiency, redirected spending etc)?	State Housing built to the NOW Home specifications will mean increased savings either for the low income tenants or WINZ if they are paying the bills. This money can be redirected into family finances or back into WINZ coffers.
How many jobs could we expect this to create?	10,400 FTE direct jobs, multiplying to 28,600 FTE jobs total. (5.2 FTE/$m; multiplier of 2.76)
What flow-on economic impacts will this have?	Major productivity benefits for significant workforces, both in construction/trades, and from those who will live in more energy efficient housing
How quickly could it start?	Immediately, as half the residential construction capacity is idle. New residential consents have fallen by half since June 2007, meaning approximately 6,000 new homes per year are not getting built, devastating the construction sector.

4.5 Community Sector initiatives

Why the community sector?

Community and Iwi based enterprises work for social, environmental and economic good and are a significant source of jobs in a time of recession, particularly for vulnerable individuals and communities. Supporting development in this sector has a multiplier effect, fulfilling needs often not met in other parts of the economy.

Community Sector Housing

The community sector, including iwi based housing, has untapped potential to help provide housing to those in need, and to create jobs, including in particularly vulnerable areas and populations. However, because the sector is relatively new in New Zealand there is a need to provide capital for infrastructure support as well as for housing build. Specific areas for investment include:

a) Assistance with funding the infrastructure of the community housing sector, aimed at supporting national and local organisations to build capacity,
b) Investment of capital to enable the sector to build, say, a minimum of 500 houses a year for each of the next 3 years,
c) Specific additional support for demonstration projects in the community housing sector (e.g. for 2 groups building low cost, high quality, environmentally sustainable social housing).

4.5.1 Community Sector Housing – Support And Construction

How much will it cost?	a) Assist with funding the infrastructure of the community housing sector, aimed at supporting national and local organisations to build capacity - $10m pa for 3 yrs. b) Investment of capital to enable the sector to build a minimum of 500 houses a year for each of the next 3 years. $200m c) Specific additional support for 2 x demonstration projects in the community housing sector for 2 x groups building low costs, high quality, environmentally sustainable social housing - $20m pa for 3 yrs.
Will it produce any savings (increased efficiency, redirected spending etc)?	Housing built to energy efficient specifications will mean increased savings for the occupants as well as health benefits that get redirected to other needs
How many jobs could we expect this to create?	1,300 FTE direct jobs, multiplying to 3,700 FTE jobs total (5.2 FTE/$m; multiplier of 2.76)

What flow-on economic impacts will this have?	Resilient communities are more likely to maintain critical mass through the downturn, and to maintain flow on spending

Community waste minimisation

The community waste sector is comprised of a network of community groups involved in waste reduction, recycling, reuse, composting and waste education services across the country, often operating in rural and regional areas where commercial recycling operations are limited, and in areas with substantial Maori populations. The community sector creates meaningful jobs in regional areas by recovering the valuable resources currently flowing into our landfills. Working together towards a zero waste future enables communities to protect their local environment and enhance their social economy at the same time. Environmental benefits include less waste going to landfill, lower methane emissions and reduced toxic leachate. Turning recycled materials into new products saves energy and water.

The community resource recovery sector is committed to a zero waste future, and is not driven solely by profits. The private refuse and recycling sector will invest in recycling and reprocessing when the price is right but may abandon those schemes if and when market conditions change. Community recyclers also tend to favour systems that create more jobs over capital intensive low labour alternatives, and they have the added benefit of delivering services and creating jobs in regions that are not considered financially viable by commercial operators. Recycling and reusing material that is currently shipped overseas for reprocessing, results in a reduction in low value exports, but with potential to create a higher value end product.

Considerable international and local evidence tells us that recycling contributes to employment. Envision NZ has estimates that at the very least, for every job in land-filling, 10 jobs could be created by collecting, sorting and recycling that material, and potentially up to 20.[1] Currently 500 staff are employed in the community sector, with an annual turnover of $30 million. Many of the jobs created are entry level, or suitable for workers from a manufacturing or trades background. There is also a range of jobs in the higher skill bracket, including education and managerial roles.

Keeping the money in the local economy

A recent study by the Community Recycling Network has shown that different recycling models generate very different impacts for the local economy. They compared the following models:

[1] *Getting There – The Road to Zero Waste*. Envision NZ, 2003

- Community recycling organisation collecting kerbside crates, and sorting at a local recycling centre
- Nationally-owned recycling company collecting co-mingled kerbside wheelie bins, sorted at a local materials recovery facility
- Multinational recycling company collecting co-mingled kerbside wheelie bins and sending material to a regional materials recovery facility 100km away

The community recycler model saw 80c out of each dollar earned being spent in the local economy. A New Zealand private recycler came in at 22c in each dollar, and a multinational recycler at 15c in each dollar.[2]

4.5.2 Support For Existing Community Recyclers To Collect And Recycle New Waste Streams They See As A Priority In Their Area: Agricultural Waste, Industrial Plastics, E-Waste, Food And Green Waste, Construction And Demolition Waste Etc.

How much will it cost?	$2 million a year for three years for existing community groups to apply for grants and low interest loans
Will it produce any savings (increased efficiency, redirected spending etc)?	Will divert current spending on waste disposal into resource recovery
How many jobs could we expect this to create?	102 FTE direct jobs, multiplying to 170 FTE jobs total (17 FTE/$m; multiplier of 1.67)
What flow-on economic impacts will this have?	Community recycling businesses return more money to local economy than national and multinational recycling companies - the community model sees 80c out of each dollar earned being spent locally, compared to 22c in each dollar for a national company and 15c in each dollar for a multinational recycler. (Community Recycling Network study)

4.5.3 Establishing Community Recycling Enterprises In New Areas

How much will it cost?	In 09/10 – $500,000 establishment fund to carry out studies and set up partnerships. In 10/11 establish a $10 million fund to provide grants, low interest loans and microcredit. A great example of a project that could be funded through a new Community Economic Development Unit

[2] *Valuing Recycle Town – how leaky is your bucket*? G. Kelk, 2009 for the Community Recycling Network

Will it produce any savings (increased efficiency, redirected spending etc)?	Will divert current spending on waste disposal into resource recovery
How many jobs could we expect this to create?	348 FTE direct jobs, multiplying to 582 FTE jobs total (17 FTE/$m; multiplier of 1.67)
What flow-on economic impacts will this have?	Community recycling businesses return more money to local economy than national and multinational recycling companies - the community model sees 80c out of each dollar earned being spent locally, compared to 22c in each dollar for a national company and 15c in each dollar for a multinational recycler. (Community Recycling Network study)
How quickly could it start?	Where there is council and community interest – 6-12 months. We estimate 5 new enterprises could be set up in first year.

4.5.4 Accelerating Waste Education Services: Up-Skilling A Network Of Educators To Deliver School Programmes By Expanding Zerowaste Education For Schools And Introducing Te Reo Programme To Deliver In Kura Kaupapa

How much will it cost?	• *Project 1:* $1,000,000 to expand ZeroWaste Education for schools programme would reach 70,000 students. • *Project 2:* $350,000 to translate material into Te Reo and introduce programme in 60 Kura Kaupapa schools, creating 4 jobs).
Will it produce any savings (increased efficiency, redirected spending etc)?	Practical implementation of zero waste projects in schools means diverting current spending on waste into resource recovery
How many jobs could we expect this to create?	• *Project 1:* $1,000,000 would employ 15 - 16 new tutors and 3 admin staff. • *Project 2:* $350,000 would create 4 new jobs
What flow-on economic impacts will this have?	Savings to schools and households
How quickly could it start?	Immediately. 530 schools involved ZeroWaste Education now (approximately 25%), so systems are in place to roll it out quickly

Community Economic Development

Some years ago the Labour Government abolished the last remaining Government unit dedicated to supporting community economic development - CEG. While there is no wish to exactly replicate CEG, there is an urgent need to establish a dedicated community economic development unit, with strong involvement from community-based practitioners in its development and ongoing functioning.

To be effective, the unit would also need funds to help assist those organisations in the community carrying out environmentally and socially useful work while also creating jobs, often among people and communities most heavily impacted by unemployment.

While we are confident that these measures will be successful in building local economic resilience and creating jobs that are valuable to communities, we have no basis to be able to make accurate predictions of these benefits and, therefore, have elected not to. There are quantitative data available from CEG, but we do not consider these to be a reliable basis. The examples of community-based waste minimisation and housing above give an indication of what is possible.

We envisage the establishment of a Community Economic Development Unit ($5m per annum) with the following functions:

- Supporting community economic development initiatives at local, regional and national level.
- Assisting Government departments, Local Government and private business to better understand and work with the community sector to successfully create jobs and to meet real social and environmental needs.
- Provision of some loan and direct funding support to community-based economic initiatives, and assistance with brokering same.
- Support for research, development and training congruent with the needs of the community economic sector.
- Support for community owned and directed banking initiatives such as the Bendigo Bank project currently being considered by Kiwibank in association with some local authorities.

Examples of this include: recycling and reduction of waste; provision of free or low cost health, welfare, educational and community development services to marginalised individuals and communities; community transport initiatives; river and coastal restoration; weed control; replanting; community and ethical banking; community gardens; housing support and much more.

Jobs in the community sector tend to be created and maintained at a lower cost than jobs in the public or private sectors due to the values-driven nature of not for profits, and the contribution of volunteers.

4.5.5 Establish CEDU Grant And Loan Fund

How much will it cost?	$35m pa for 3 years
Will it produce any savings (increased efficiency, redirected spending etc)?	Not directly
How many jobs could we expect this to create?	Hard to quantify as this type of work is not well captured by existing models. Likely to be direct employment of at least 15 FTE per $1m invested (350 jobs direct) and a type II multiplier of at least 2, so at least 700 jobs overall
What flow-on economic impacts will this have?	Resilient communities are more likely to maintain critical mass through the downturn, and to maintain flow on spending