Towards Zero Waste - The New Zealand Story

Notes from a presentation by Warren Snow to the International Conference on Zero Waste Organised by the Korea Waste Movement, Seoul Korea - April 2002

Over the last two hundred years mankind has created a system of production and consumption based on the idea that natural resources are endlessly available and that waste can be poured into nature forever. The result is that that almost the entire output of our industrial system is waste.

The same industrial system that created the problem of waste has created two solutions - landfills and incineration. The problem is that these solutions are based on the same old thinking that created the waste in the first place, and they create serious environmental problems further down the road. Add to this the loss valuable resources that could be used instead to create local employment and business opportunities and it's clear - we are victims of our own old thinking. We need a new vision and a new solution to the problem of waste.

Communities around the world are rising up against waste, fighting landfills and incinerators and in many cases stopping them[1]. But for every one that's stopped, ten more are proposed and the corporations that promote them have huge resources to undermine local opposition.

We must fight to stop incinerators and landfills, but we also need to offer a better and safer solution, one that everybody can agree with, one that everybody can stand for. Zero Waste provides communities and countries with a real positive alternative. It's the design principle for a sustainable society.

Zero Waste means nothing less than the total redesign of the industrial system. The good news is that Zero Waste can compete against landfills and incinerators economically and at the same time bring enormous social and environmental benefits.[2] Gradual, or incremental change won't bring about the change we urgently need. We need a totally new way of looking at the problem, something that creates new thinking - a new vision for a sustainable society. Zero Waste is that vision.

As a new vision for society, Zero Waste is attracting support from business, cities, governments, international consultancies, small business, community groups, inventors, entrepreneurs, and financiers. They are beginning to understand that Zero Waste is a driver for creating sustainable communities. It's practical, realistic and economically viable and gives everybody concerned for the fate of the planet a chance to make a difference. We can pull back from the brink of environmental disaster and create a new society based on an industrial system that creates more and more value with less and less material use.

The New Zealand Story

Four years ago we started the Zero Waste campaign in New Zealand. We set up a non-profit organisation, Zero Waste New Zealand Trust, in 1997 to organise the campaign. The Trust has three employees. Since the campaign began, Zero Waste New Zealand has helped a network of around 50 community-based groups to set up local initiatives to reduce waste in their communities. Many of these non-profit enterprises have won contracts from their local municipalities to provide waste reduction education in schools or to operate recycling programmes. Some of them run waste transfer stations (which they have turned, into resource recovery and recycling centres). Others have won contracts to run kerbside recycling programmes or waste collection systems. They use the money from the contracts to design systems that divert waste from landfill – and create jobs and local businesses.

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[1] Gaia is becoming recognised throughout the world as a key part of the community based anti-incineration movement. GAIA stands for two names: Global Alliance for Incinerator Alternatives or Global Anti Incinerator Alliance. Their website is: www.no-burn.org

[2] Go to www.zerowaste.co.nz for studies demonstrating the economics of resource recovery and recycling

Setting targets
We have been able to convince 50% of New Zealand's municipalities to adopt targets of Zero Waste – most by 2015. All of their planning and waste systems are now being designed around this target. This is resulting in changes in the way that waste contracts are written and increasingly design of waste systems that focus on resource recovery and recycling. Transfer stations are being converted into Resource Recovery Centres and new Resource Recovery Centres are being designed specifically for the purpose. New Zealand does not yet have municipal waste incineration. An attempt to establish a large incineration plant was successfully blocked through a combination of community action and the inability of the company to meet local environmental standards.

The New Zealand Government recently included a vision of 'Towards Zero Waste' in its new National Waste Strategy. The vision of Zero Waste was included as a result of the community-driven Zero Waste campaign and recycling initiatives throughout the country. New Zealand is now the first country in the world to have Zero Waste as its goal. It means we are officially aiming to eliminate rather than just manage our waste.

Providing the correct advice
The success of the whole Zero Waste campaign in New Zealand depends on community groups, municipalities, institutions and businesses getting the right advice. Too many consultancies and advisors in the past have only been able to advise on old landfill systems and have been unaware of the Zero Waste concept. As a result they have tended to advise on how to build bigger and better waste systems

We have a number of people setting up in businesses as Zero Waste consultants or advisors'. These people are very important to the campaign and specialise in different areas such as hospital waste, resource recovery centre design, waste audits, business management, training, kerbside recycling, contracts, community based businesses etc etc. By supporting Zero Waste Advisors we know that the correct information will be given to ensure waste minimisation projects are implemented properly.

Supporting Recycling Entrepreneurs
Development of recycling and recovered materials industries can create employment and business opportunities – often in poorer communities. Zero Waste New Zealand provides support for entrepreneurs who are inventing new products, machines and processes that use recycled materials. Inventors and entrepreneurs are coming up with new ideas for the use of recovered materials and a number of businesses are exporting[3] materials, products, technologies and even expertise. A number of these businesses wouldn't have been established if it weren't for either a small seed grant to help them develop their invention or technical support[4] from Zero Waste New Zealand. Until now the banking system has not recognised recycling as a viable business enterprise and this lack of access to capital has limited the growth of the industry.
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Supporting Conferences and Seminars
Zero Waste New Zealand sponsors conferences and seminars around New Zealand and these events help to keep the movement strong. Many of the community groups we work with operate from isolated areas and it is important for them to be able to network and share ideas. Also for them to be encouraged by each other's successes. Zero Waste also provides: information and technical assistance, newsletters and a website www.zerowaste.co.nz and provides technical support and advocacy for new community organisations.
Zero Waste has supported visits from many world experts who come to New Zealand to teach local people and also to learn.

[3] A recent study showed that New Zealand is currently exporting around $100 million worth of recycled materials, recycling machinery, recycled products and recycling consultancy services
[4] The Recycleloans Fund In Auckland and the Recovered Materials Foundation in Christchurch provide loans to businesses making products from recycled materials.

New Jobs and Business Opportunities
It is impressive to see the number of jobs that small communities can create through reuse, recycling and disassembly. Community recycling businesses are often able to reach deeper into the waste stream than ordinary commercial businesses can because their motivation is quite different to those of private enterprise. They want to create jobs and wealth for their communities. They want a future for their children and are prepared to work for less profit than private operators would ever think of, sometimes even at a loss in order to maintain a service that will keep people employed. Over time the communities that have done this have ended up with greater waste reduction and greater numbers of people employed than those that only use private waste companies to dispose of waste.

Creating markets for recovered materials
A survey in Auckland City (population 1 million) of 65 businesses, four years ago showed that those businesses were employing over 1700 people and contributing $133 million dollars per annum to the economy. All of them were growing, however some had problems getting access to finance. Three years ago we set up a special fund called the 'Recycloans Fund' in recognition of this problem. The Recycloans Fund lends money to new recycling initiatives that are making products from recovered materials.

Protecting New Zealand Exports and Industry
In New Zealand we consider that our clean environment is our nation's biggest asset, closely tied to the success of our export and tourism industries. Current waste disposal methods pose serious threats to our reputation as a clean source of food and products for the world and as a clean tourist destination. Cheap disposal either to landfill or by incineration is also a threat to our efficiency and industrial competitiveness.

We must change our thinking
New Zealand has a population of less than four million yet is littered with hundreds of old landfills. Most of them are near or on sensitive marine and fresh water systems. One city has 50 old closed landfills - all this in less than a hundred years. On the worldwide scene we know that increasing population multiplied by increasing consumption is resulting in increased waste and decreased quality of life. We cannot allow old thinking to guide our destiny. Old thinking creates landfills, which are toxic waste pits with endless leaching of toxins into our environment. Old thinking designs incinerators, which emit deadly toxins into our atmosphere. Old thinking tries to convince us that they are safe. We must stand against these, but we must also offer a new alternative and that alternative is Zero Waste.

A crisis demands action, a breakthrough. Zero Waste in itself is not a technology but rather an 'umbrella' for a range of technologies that can compete with landfill and incineration. Already Zero Waste is changing the way businesses, institutions, communities, schools and individuals think about waste. We are slowly educating people to think beyond the end of the waste pipeline; to see that the whole supply chain is their responsibility and that every time they buy something they must think of where it will end up at the end of its life.

We want everybody to take personal responsibility:
We want designers to design products that are durable, repairable and easy to disassemble for recycling and to be made of materials that can be incorporated harmlessly back into nature or back into industry. We want manufacturers to invest in new design, to create products with no waste, to eliminate wasteful packaging and to take responsibility for the whole lifecycle of their products. We want consultants and engineers to retrain in the Zero Waste technologies that are being created around the world.

We want retailers to demand that their suppliers create products in an environmentally sound way, with fair labour conditions and no waste. They must also provide systems for consumers to return goods for disassembly and to start leasing and servicing rather than selling products.

We want universities and schools to teach Zero Waste as part of their basic curriculum and to have their own recycling systems in place. We want them to teach people to be responsible when they leave school for

redesigning the industrial system so that human society can truly be part of nature. We want them to deeply understand that the human economy is only a small part of nature's economy - not the other way around.

We want community organisations to work with local municipalities to create sustainable jobs by eliminating waste at the end of the waste pipe and returning all recycled materials back into the industrial system or harmlessly back to nature.

We want governments to take the leadership role and to put the vision of a Zero Waste society forward for their communities and industries to make their countries more competitive. Those countries that don't aim for Zero Waste will increasingly become less efficient and competitive and their economies will decline.

Summary?
To succeed in any journey we have to be focused and clear on where we are going. The road to Zero Waste is a journey. The target must be Zero. We need a date to achieve that vision by and we believe that 2020 for our country is achievable. Many large companies around the world have set Zero Waste business goals and some of them have got close to achieving it in a very short time.[5]

There are three core principles for setting a Zero Waste strategy

1. **End cheap waste disposal**; The only way to make Zero Waste possible is for the true cost of disposal to be charged to the waste generators. If we charge the true cost of disposal, Zero Waste technologies and strategies become very much more competitive and cost effective.
2. **Design waste out of the system**; Zero Waste is both an end-of-pipe' strategy and a design principle. We must design waste out of the system at the very beginning of the supply chain if we are to achieve Zero Waste. We must also design strategies that will enable each person to play their part in creating a 100% closed loop materials efficient economy.
3. **Engage the people**; No vision will be successful if we do not engage every single person and help them to believe that it is possible to move towards the target.

There is still a long road ahead and there are many critics waiting and watching for us to fail. Our vision is strong and our target is firm, we are slowly building the infrastructure for a Zero Waste economy and society

New Zealand was the first country in the world to give women the vote and the first country in the world to ban nuclear weapons. Now we want our country to be free of waste - Zero Waste. My colleagues and I – and many groups and organisations around New Zealand, believe that this is totally possible. We are working as hard as we can to research the technologies, the processes and the incentives that will help us to achieve our goal. We challenge groups, institutions, and the people of Korea to join us in this quest. We will achieve our goal if we are all aiming for the same vision. Zero Waste is the design for that sustainable future. We are at the beginning of the materials revolution.

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[5] Ricoh, Toyota, 3M, Xerox, Interface.