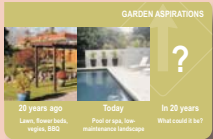





Room laid out for groups of 4 people, around 4 or more tables.

Each group follows similar process; and materials used differ between but not within the tables.

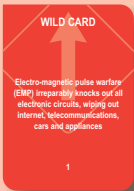

Step 1 (start)	Step 2 (10 minutes elapsed)	Step 3 (25 minutes elapsed)	Step 4 (35 min elapsed)	Step 5 (45 min elapsed)
You are in the present	Transition: today to 2030	In 2030 (and trend to 2055)	In 2055	In 2055
<p>After introductions, start with a 'warm up' activity - Table receives 2 (&amp; if time, 2 more) <b>Past Trends</b> picture cards, at random from a larger set. These look back 20yrs, then invite you to look ahead.</p> 	<p>Table receives 2 (&amp; if time, 2 more) <b>Change Driver</b> cards. In addition to these examples, what are other emerging influences on our Pacific Island biodiversity?</p> 	<p>Receive a <b>future scenario description</b>, and a <b>chart</b>, showing how this scenario relates to the three other game scenarios. Each is a 'future possibility direction' but none are predictions.</p> 	<p>Pretend to be a person in your grandchild's generation: receive <b>role cards</b> issued at random. What is life like in this scenario, for the 'new' you?</p> 	<p>Now consider the natural world in this scenario - what are the prospects here for biodiversity? If you '<i>spoke for the trees... or the fish, or the birds</i>' what would your positive and negatives be?</p>
10 minutes.	15 minutes.	10 minutes.	10 minutes	10 minutes.
Discuss in pairs, then share your views with others at the table.	Display combined list of 'drivers of change' on a paper chart or white board. (2 tables could join for this)	Discuss which of your earlier list of drivers seem to dominate <i>this future scenario</i> ?	Consider quietly. Make a note of two positive and two negative human aspects, in your role. Then discuss.	Make a note of two positive and two negative aspects for biodiversity. Then discuss.

Timings above are minima - it works better with more! Insert refreshment or meal breaks as required and adjust timings accordingly.

*Continues overleaf.*



Facilitator to insert refreshment breaks as required, or lengthen Steps, and adjust timings accordingly.

Step 6 (55 mins elapsed)	Step 7 (1hr elapsed)	Step 8 (1 hr 5 mins elapsed)	Step 9 (1hr 15 mins elapsed)	Step 10
Sometime 2030 - 2055	By 2055	In 2055	In 2055	Back to Today
<p>The future is unpredictable. Stay with your scenario and return to 2030. Receive a 'wild card' (it may represent a random future event, or cumulative change passing some threshold).</p> 	<p>A second random <b>wild card</b> arrives - if there is time. It has a cumulative effect, on top of the previous one. It may be positive or negative, in your scenario.</p> 	<p>Discuss: How adaptable and resilient were natural ecosystems to human impacts, in your imagined future?</p>	<p>Report back to the room on each table's scenario exploration. Across the room, this will cover the 4 scenario 'contexts' to show resulting differences. Wildcards will have introduced yet more variation.</p> <p>Total time required depends on how many tables report.</p>	<p>Afterwards - Reflect on this scenarios process, of exploring future possibilities, and asking 'what if?' from a new perspective.</p> <p>Could you apply such future possibilities to help you to explore resilience and risk in human and natural communities today? This is education for sustainability.</p>
5 minutes	5 minutes	10 minutes	A few mins per table...	After this session
<p>Discuss what could be its impact 20+ years from now? A positive or a negative for you (in role) and for biodiversity? Make a note.</p>	<p>Does it help or hinder? (positive or negative)</p>	<p>Table: Make notes of key points, ready for reporting back by a spokesperson.</p>	<p>Compare findings between scenarios. Ask if all or most of the change drivers (from earlier in game) were considered, and note any important ones that were missed out?</p>	<p>Visit the website for free copy of the game materials: <a href="http://www.landcareresearch.co.nz/services/sustainablesoc/futures/">www.landcareresearch.co.nz/services/sustainablesoc/futures/</a></p>



INDEPENDENT  
AOTEAROA

A

B

C

D



By 2055, Aotearoa New Zealand is a more cohesive society, outward looking and confident as an independent global citizen with a distinctly Pacific character.



Government response to climate change, Peak Oil and other challenges is slow and deliberative - many take part, some get frustrated.



Shift made from a competitive growth economy to valuing 'genuine progress' in well-being above short term profits. Benefits of modest growth are shared equitably. Individualist entrepreneurs are not much fostered, so some emigrate. High quality life-long education helps retain others.



Unprocessed primary produce exports reduced, but high quality organics in demand. Production focus on waste avoidance, energy efficiency, solar technology, making more from less. These cleaner technologies and skills are exportable.



Housing is more social, both urban and rural. Advantages of Maori & Pacifica traditional housing re-discovered by wider population. More shared-use facilities exist alongside private spaces, driven both by need for affordable housing in a low wage economy and effect of capital taxation.



Values have shifted towards the eco-centric rather than techno-centric, and measures of your 'worth' to social rather than material wealth. Social decline observed in societies overseas, stressed by resource shortage and over-population. This has led to some de-coupling from the global economy, but not from global media, read and viewed skeptically.



Native bird song; children at play outdoors; waiata-songs within a workplace; fewer cars; people in street discussion near food market traders; background hiss of wind or water turbines.



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## LIVING ON N<sup>o</sup>8 WIRE

A	B
C	D



Sustainability awareness arrived, but late, in this scenario. By 2055, city life in Aotearoa-New Zealand is potentially less appealing than it was in their buoyant market economy back in 2025.



Government was initially low intervention (as in *New Frontiers* scenario C), then prompted to regulate in the 2030s by a rise in social concern over weather, resource and ecosystem dysfunctions. Action was taken, unpopular to business, to gradually disconnect NZ from the global economy, making space for local restoration efforts and a new social identity.



As resource depletions and pollution took their toll on commercial activity after 2025, there were trade-offs made between economic growth and quality of life. These made overseas investment and trade terms less attractive. Falling land values and rising unemployment resulted, in part from overseas capitals' retreat.



Rural exports fell as farming diversified to focus on national food and fuel demand, had to reduce inputs and employed low-wage labour displaced from the cities.



Settlement density fell, now that food growing is a daily activity for many, and urban infrastructure is becoming unreliable due to under-investment during the prosperous years. Energy generation is decentralising.



The neighbourhood is a stronger social focus than the nation. Local ingenuity (in 'Kiwi No.8 wire' inventor tradition), providing multiple responses to organisational and resource challenges. Varied success, but made in good humour.



Local radio station's news broadcast when on public transport; children reading out-loud from the latest picture walls; noisy but happy crowd walks by on its way to a sports game against next town's side; distant church bells.



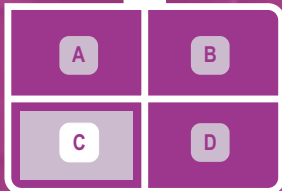
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## NEW FRONTIERS



By 2055, New Zealand society is an individualistic meritocracy - social position is defined by visible financial status and fashion, not social or cultural origins. The country is open to inward and outward migration based on wealth and educational achievement, and is increasingly multi-cultural. Recently, more have left than arrived.



Once-public services such as health, education and transport have for years been privatised, creating business opportunities. Efficiency gains benefit the owners, not users. The State's role is limited to governing markets and maintaining law and order; but little action on environmental protection, nor response to global issues of climate change.



The economy is a fast adopter of available technology, and an innovator, often applying these before impacts are assessed. There have been some local eco-disaster incidents and a cumulative pollution of air and water is now affecting rich and poor alike. When a crisis hits, NZ is unprepared.



Minerals from the seabed, dairy products, GE timber, high tech.



Aspiration to a resource-intensive personal lifestyle are reflected through expensive neighbourhoods of luxury houses on gated sections or high rise inner city apartments for the wealthy. The 'losers' rent homes from the 'winners', commute longer distances, and have less comfortable living conditions, but they do still aspire.



Established faith in technology as a problem solver, but it has not come up with 'fixes' to the resource shortages and pollution felt keenly since 2045. Increasingly desperate measures by business extend the extractive approach to resources, as there is little public regulation. Eco-terrorists emerge.



Distant explosion - might be a quarry blast, or not? Sirens. Radio adverts for training, health care products and the latest fashion in secure private transport.



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## FRUITS FOR A FEW

A

B

C

D



By 2055, natural resources are being conserved and used in technologically innovative ways, with much recycling and bio-mimicry. Benefits of this are enjoyed by only a few, however. Once 'public' resources, such as coastline, national parks, water and fisheries are now privatised.



The need to adapt to climate change and Peak Oil led to 'smart' environmental controls, implemented at public cost, with benefits mostly felt in private sector. Elite business interests strongly influence policy. Government has reduced social, health and education responsibilities compared to the 2020's.



The economy remains globalised with free capital and staff movement and property rights dominant. New Zealand is doing well compared to the early industrialised nations which have exhausted their resource bases. Skilled wealthy people migrate here, attracted by a clean environment.



Commodity exporting volume has reduced, but added-value products are exported, and tourism continues, managed largely from overseas, with profits expatriated.



A few live in 'gated palaces' but most in overcrowded and aging housing, unable to repair or improve these on low wages, and are subject to high recurring costs for water, fuel, travel, healthcare, etc. There is no social housing provision or elderly care provided by the State - only the insured get access. People have to work into their old age unless their children care for them.



The public is excluded from decision-making affecting their lives. They know their family but not their neighbours and fear strangers.



Fast luxury vehicles passing a squeaking bicycle, street beggar's plea, supermarket lottery-ticket hawker, guard dog barking, loud factory machinery through open doorway, bus queue grumpy complaints.



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## CHANGE DRIVER



### Drinking Water

Water quantity & quality available from catchments & aquifers?

## CHANGE DRIVER



### Stormwater

Expecting more flooding events:  
Rising seas, fuller rivers, local  
cloudbursts?

## CHANGE DRIVER



### Wastewater management

Quantity and quality of discharges;  
ecological & cultural impacts there?

## CHANGE DRIVER



### Local food supply

Food quantity and quality available  
from both local and distant  
sources?



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## CHANGE DRIVER



### Leisure time options

What will be 'new' leisure activities, and their time/energy/cash demands?

## CHANGE DRIVER



### Commuting to work & study

Physical travel and/or telecommuting?  
More time for gardening and conservation?

## CHANGE DRIVER



### Electricity supply security

Reliable and affordable power, from centralised or de-centralised sources?  
What's the power generation footprint?

## CHANGE DRIVER



### Imported or local gas supply

Viable fuel of the future, or reserve it for petrochemicals?  
Convert coal reserves, perhaps?



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## CHANGE DRIVER



### Solid Waste Management

Burying the problem,  
or recycling it?  
Is there a toxic legacy?

## CHANGE DRIVER



### Governance & Participation

Reactive or pro-active leaders, to  
supply visions of desired future?

## CHANGE DRIVER



### Ecological limits and thresholds

What is local area carrying capacity,  
for both food production and waste  
absorption?

## CHANGE DRIVER



### Rising wind speed and strength

Climate is changing -  
warmer wetter winds from  
North & West!  
Storm damage more frequent.



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## CHANGE DRIVER



### Population composition

Different ratios of ethnic groups result from some sections of population growing faster. Will society's values change in response?

## CHANGE DRIVER



### Access to green-space, and nature

Walk and play locally, or travel to distant national parks?

## CHANGE DRIVER



### Health & longevity

More elderly need housing & support, but many are also healthy & active  
How will they use that leisure time?

## CHANGE DRIVER



### Existing housing's quality

Many are cold and damp - do millions of homes need replacement?  
House construction creates large energy and materials demand.



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## CHANGE DRIVER



### Global Peak Oil Production

Rising prices as demand exceeds supply  
People drive less, walk more, regain some contact with nature and seasons?

## URBAN CHANGE DRIVER



### Workforce size & skills

Perhaps fewer workers in relation to their dependents, and how well skilled?  
Automation may be possible, but requires energy.

## CHANGE DRIVER



### (In)secure financial system

Credit less easy, or currency speculation, or overseas capital might fly?  
Will conservation seem an unaffordable luxury?

## URBAN CHANGE DRIVER



### Sense of security

Will more people hide behind walls, gates and video cameras?  
Will many still be interested in visiting wild or remote places?



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## CHANGE DRIVER



### Mortgage availability & use

Will relatively more people rent,  
not own their homes?  
Will renters seek public parks and  
food gardens?

## CHANGE DRIVER



### Insurance non availability

Are un-insurable locations  
emerging?  
Will the wetlands arise?

## CHANGE DRIVER



### Surface Infrastructure

Will urban roads and streams  
become green corridors, as well as  
meeting engineering needs?

## CHANGE DRIVER



### Infrastructure Ownership

Private or public control of water  
supply, roads, airports, ports,  
telecoms, power?



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## CHANGE DRIVER



### Distinctive Sense of Place

Local loyalties and character develop as settlements outlast their 'founders' and as characteristic flora recognised.

## CHANGE DRIVER



### Land values at transport nodes

Rail and bus access command a premium.  
Commuter car-parks on rural land at city margin.

## CHANGE DRIVER



### Local manufacturing base

Industry declining or re-building, in a changing global trade context?  
Industry impacts on environment changing.

## CHANGE DRIVER



### Conspicuous consumption

Demise of the suburban 'trophy home' and of throw-away goods?



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## CHANGE DRIVER



### New household formations

Smaller or larger 'family' units?  
Will children stay at home longer?  
Higher density homes  
without gardens?

## CHANGE DRIVER



### Telecom use & computing

Rise of the virtual workplace made possible. Will contact with 'nature' become virtual too?

## CHANGE DRIVER



### GM crops and animals

Engineered algae, fungi, livestock, trees and field crop plants may become an asset or a liability?

## CHANGE DRIVER



### Bio-mimicry in engineering

Emulating natural systems becomes a common design approach.



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## **Organic Farmer (or horticulturalist)**

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## **Telecoms and computer specialist**

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## **Health promoter (Preventative medicine)**

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## **Netballer or Rugby player (professional)**

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## School Principal

(Indigenous people well represented at this school)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Employer

(Medium size services enterprise)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Plant Scientist

Plant breeder, for industry.  
(Conventional and G.E)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Child

(Aged 10, at well funded school)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Global Tourist

(Back-packer with low budget)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## General Medical Practitioner

(Family doctor based in a clinic)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Environmental Health Officer

(Respond to threats to public health – including food poisoning and air and water pollution)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Botanical Garden Curator

(Manager)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Emergency response coordinator

(local or state government)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Child

(Aged 10, at low funded school)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Conservation Advocate

(Based in an NGO)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Carpenter and builder in timber

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Elderly couple

(High disposable income)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Part-time shop worker

(and a parent of two children)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Truck Driver

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Water policy advisor

(Regional)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Recent Migrant

(Low skilled)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Tourist, older aged

(escorted coach tour - medium budget)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Chief Executive

(Regional Tourism organisation)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Practice Nurse

(In a rural primary care service)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Citizen

(with 2 dependants of school age,  
average income)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Policy advisor

(Treasury)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Landowner

(Large investment in extensive  
primary production)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Luxury Transport Provider

(To tourists and VIPs)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Police officer

In urban area

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Chief Executive

(Indigenous people's organisation)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Volunteer organiser for restoration of habitats

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## School leaver

(Seeking work in zoo or wildlife park)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Citizen

(Pacific Islander, 2 dependents of school age)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Chief Executive

(Wind turbine manufacturer)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Transport Vehicle Mechanic

(Bus, train, tram)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Forester

(Timber and tree crops)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Recent immigrant

(refugee status, highly qualified,  
poor English)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Childcare Worker

(or nursing home staff member)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Elderly person

(Small State pension only)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Journalist

(Regional newspaper)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Elected Community Representative

(A retired business person or professional)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Cycle Racer and Bicycle Mechanic

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Area Manager for State Conservation Agency

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Energy policy advisor (Central Government)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Venture Capitalist

(Chinese entrepreneur seeking investment opportunity)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## National Manager

(Petroleum company e.g. Shell, BP or its equivalent)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Elected Councillor

(Local government, is environment - aware)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Wildlife Rescue Worker

(Animal refuge or sanctuary)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Industrial Researcher

(Nano-technology)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Manager hotel chain

(overseas owned)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Mental health support worker

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Migrant

(English second language - business skills)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Accommodation Provider

(Near a national park)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Butcher

(Farmed and 'game' meat processing)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Policy Advisor

(Water and natural resources)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Artist

(Visual arts media, or dramatic)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## Farmer

(Livestock, plus contracting)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Environmental Policy Advisor

(To Government)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Taxonomist

(Identifies plant species or animal species)

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.

## Leader of Community Nature Conservation Project

Examine the scenario you have been given and, based on the information you have so far, develop a more detailed picture of what it is like to be in this role.

Record your own thoughts initially then discuss in your group.



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## WILD CARD

Electro-magnetic pulse warfare (EMP) irreparably knocks out all electronic circuits, wiping out internet, telecommunications, cars and appliances

1

## WILD CARD

Pulmonary type TB becomes rampant, highly contagious, unable to be treated or easily contained in long term

2

## WILD CARD

Global pandemic (e.g. Sars III) kills 10% of working population each year for 5 years before being controlled

3

## WILD CARD

Nuclear weapons used in the Northern Hemisphere, results in large movements of refugees to southern countries

4



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## WILD CARD

Worldwide famine as rust fungus affects rice and grain crops and reduces harvests, on an ongoing basis

5

## WILD CARD

Global banking & stocks crisis, loss of confidence leads to massive inflation and a collapse in world trade.  
Unemployment rises above 30%

6

## WILD CARD

New Zealand is hit by a Richter Scale 8 + earthquake swarm as alpine fault slips. Large death toll and widespread disruption to key infrastructure

7

## WILD CARD

Global Climate Change accelerates to tipping points, Greenland melts, sea-level now expected to rise 5 m within the next 50 years

8



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## WILD CARD

Global resource wars increase energy costs especially for liquid fuels. Actual continuity of supply becomes a major problem, with frequent interruptions

9

## WILD CARD

Average temperatures rose 3°C (over 50 years) and weather now more extreme and variable, with intense cloud bursts and droughts

10

## WILD CARD

New Zealand's population rises 2 million as returning NZ'ers and environmental refugees flood into the country. Ongoing net inflow there-after of 100,000 migrants/year

11

## WILD CARD

NZ nanotechnology industry developed - retards aging, immediately extending life expectancy and childbearing years by 50%, prompts a baby boom

12



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## WILD CARD

Urban power or water infrastructure fails in one city. Significant population shift from urban to surrounding rural areas, including squatters.

13

## WILD CARD

Organic farming becomes the norm. 'Pest control' is based on ecosystem balances and composting instead of chemical interventions.

14

## WILD CARD

Meat and dairy produce becomes less acceptable, for varied reasons. Pastoral economy converts to alternative crops and new land uses.

15

## WILD CARD

Small scale, labour intensive biotechnology develops. The use of bacteria to extract minerals from land and seawater and clean up pollution becomes a major economic activity in NZ, with major export earnings

16





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## WILD CARD

NZ develops a large “commercial” military capability for peace keeping and mediation of conflicts. A training and research component attracts students from all over the world

17

## WILD CARD

NZ develops specialized education programs (medical, biotech & appropriate technology) using virtual reality and high tech interactive systems. Attracts capital and skilled immigrants

18

## WILD CARD

New mosquito control technology frees us from some sub-tropical human diseases that became widespread in warmer lowland areas.

19

## WILD CARD

Technology breakthroughs on recycling reduce building costs by 75% as well as 'disposing' of waste stream materials

20



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## WILD CARD

Offshore algae farming becomes economic, for bio-fuel production. Floating structures also double up as fish farms and sources of electricity from wind and wave generators

21

## WILD CARD

Forest land-cover is increased to offset CO<sub>2</sub> tax obligations. At the same time wood becomes substitute for 'fossil' fuels and a source of chemicals

22

## WILD CARD

'Global Conservatory' status accorded by IUCN to New Zealand as a safe recovery location for rare (mostly endemic) plant and invertebrate species.

23

## WILD CARD

Eco-tourism has grown, with arrivals by boat for relatively long-stays. Visitors participate in restoration efforts.

24



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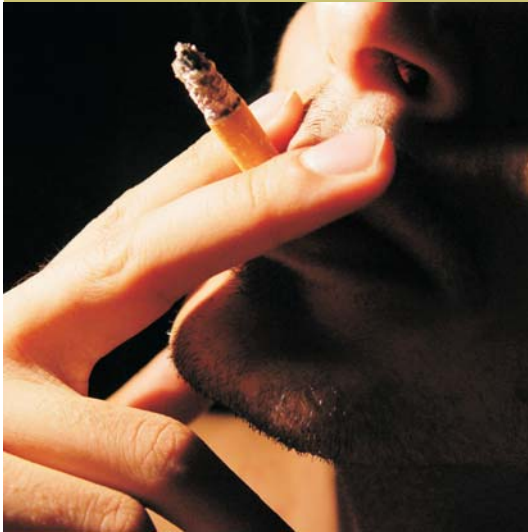
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## IN-FLIGHT ENTERTAINMENT



**20 years ago**

We could smoke



**Today**

We can choose films



**In 20 years**

What could it be?

## DOLPHINS



**20 years ago**

Imported dolphins  
viewed in captivity



**Today**

Set-net bans to protect  
rare dolphins in wild



**In 20 years**

What could it be?



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Future Scenarios-Biodiversity Edition 2008

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## TELECOMMUNICATIONS



20 years ago

The Brick



Today

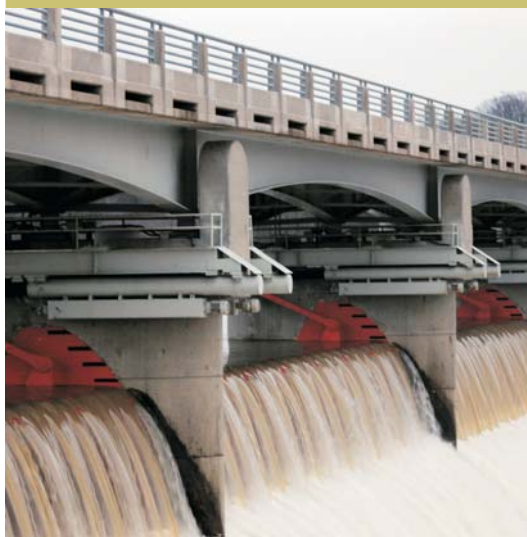
Smart Cellphones

?

In 20 years

What could it be?

## RENEWABLE ENERGY



20 years ago

Think Big Hydro



Today

Windfarms

?

In 20 years

What could it be?





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## TIMBER PRODUCTION



20 years ago

Clear felling  
natives



Today

Clear felling pine

?

In 20 years

What could it be?

## TOURISM



20 years ago

half million per year



Today

2 million per year

?

In 20 years

What could it be?



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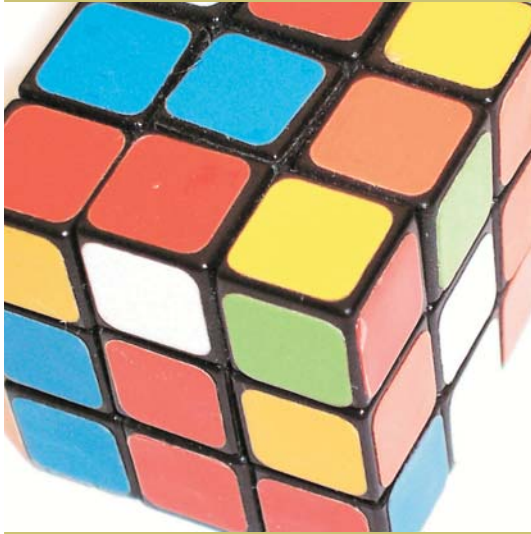
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## TOYS



20 years ago

The Rubics Cube



Today

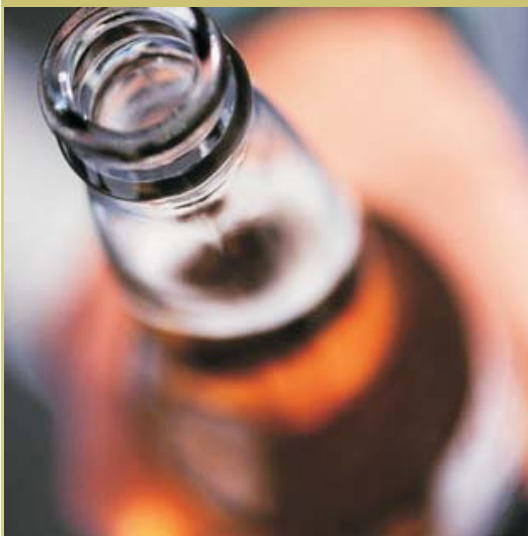
The i-pod



In 20 years

What could it be?

## RECREATIONAL DRUGS



20 years ago

Alcohol



Today

Pills



In 20 years

What could it be?



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## ANCIENT LIZARD



20 years ago

Captive tuatara aged  
110 years



Today

Same tuatara an 'icon'  
aged 130

?

In 20 years

What could it be?

## INFORMATION TECHNOLOGY



20 years ago

The computer



Today

Mini Tablet PC

?

In 20 years

What could it be?



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## ENTERTAINMENT



20 years ago

Pacman



Today

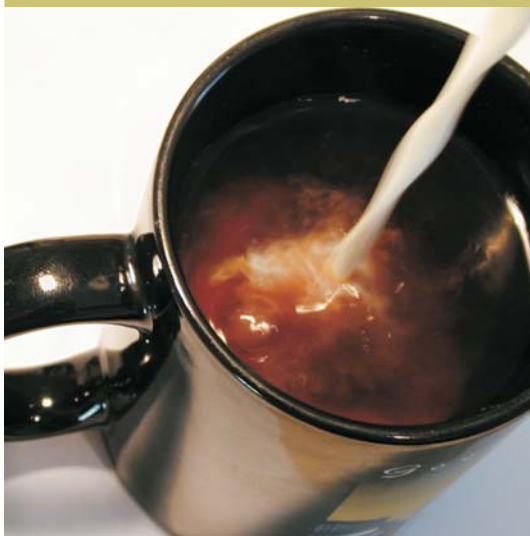
Portable Playstation



In 20 years

What could it be?

## CAFE SOCIETY



20 years ago

Instant coffee



Today

De-caffeinated latté



In 20 years

What could it be?





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## A NIGHT OUT



20 years ago

The Pub



Today

The Club

?

In 20 years

What could it be?

## SHOPPING



20 years ago

The local shops



Today

The local mall

?

In 20 years

What could it be?



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# GARDENS



20 years ago

Lawns, rockeries and roses



Today

Pools, barbecues and paving



In 20 years

What could it be?

# EXPORTS



20 years ago

To the UK



Today

To Asia



In 20 years

What could it be?



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## AGRICULTURE



20 years ago

Large farms



Today

Lifestyle Blocks



In 20 years

What could it be?

## YOUR NEIGHBOURS



20 years ago

Bi-cultural

Today

Muti-cultural



In 20 years

What could it be?



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## CARS



**20 years ago**

One car family:  
The Holden

**Today**

Two car family:  
SUV & one other

**In 20 years**

What could it be?

## HOLIDAY HOUSES



**20 years ago**

Kiwi Bach

**Today**

Marina development

**In 20 years**

What could it be?





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## HERBIVORE PESTS



**20 years ago**

Hunting exotic pests in  
native forests



**Today**

Poisoning exotic pests  
in native forests

**?**

**In 20 years**

What could it be?

**20 years ago**

**Today**

**In 20 years**



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