

# Resilient Communities

## A new resource for sustainability education

NZ Society for Sustainability, Engineering and  
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[www.sustainableliving.org.nz](http://www.sustainableliving.org.nz)



# Sustainable Living Programme

- Introduction
- Energy
- Building
- Waste
- Shopping
- Gardening
- Food
- Water
- Transport
- Community Resilience



# Why Community Resilience topic?

- Household and community preparedness ad hoc and incomplete
- CDEM and environmental sustainability education separate
- Short term natural disaster
- Long term climate change
- Sustainable option can be resilient option
- Social perspective
- Encourage behaviour change



# What is resilience?

“The capacity of a system to absorb disturbance and reorganise while undergoing change, so as to still retain essentially the same function, structure, identity and feedbacks”



# Research synopsis

- Ability to bounce back and grow in the face of threats to survival  
(Reich 2006)
- Social capital: networks, reciprocity, trust  
(Patterson et al 2008)
- Maintain ability to function  
(Hopkins 2009)
- Local sustainable communities beyond oil dependency  
(Hopkins 2009)
- People as citizen consumers  
(Mortimer et al 2010)



# Resilience to...natural disaster

- In recent history, NZ has experienced major loss of life in natural disasters including volcanic eruptions (Tarawera 1886), earthquakes (Napier 1931) Wahine storm (Wellington 1968)



Image courtesy of John McClure  
Victoria University of Wellington



# ...storms, floods, drought...

- Weather events are growing in intensity



# ...earthquakes, subsidence, landslides...

- Canterbury earthquakes caused no loss of life, but damage is estimated in the billions



# ...failed harvests, pollution, biodiversity loss..

How to recycle



Take some water

Add a little toxicity

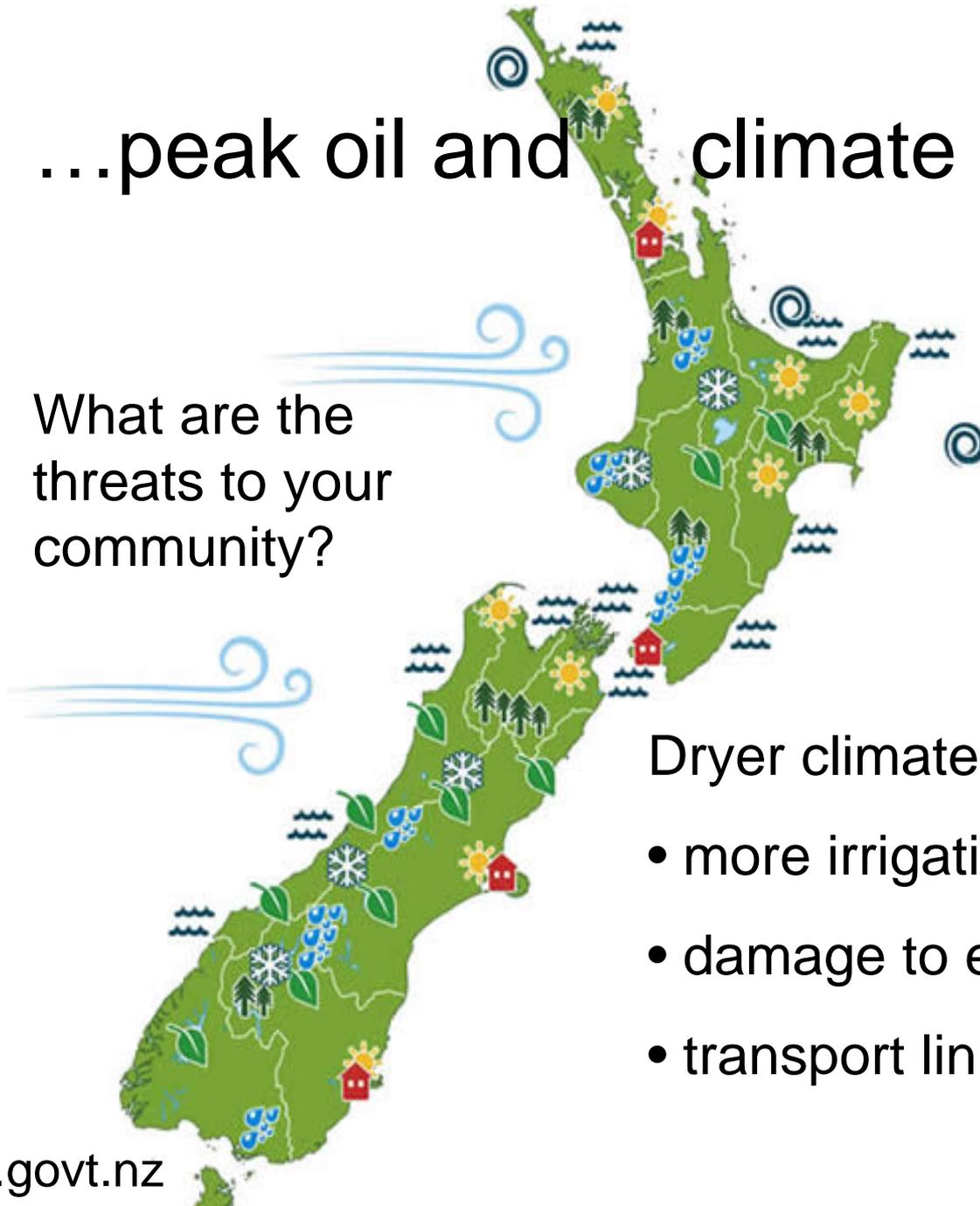


And pop it into the environment



# ...peak oil and climate change

- What are the threats to your community?



Dryer climate, more storms=

- more irrigation/crop failure
- damage to energy/telco grids
- transport links cut/unviable

# Pilots for new course

- Waiheke
- Mt Eden
- Christchurch
- New Plymouth



This course is about human quality of life, as well as the survival of the planet's ecosystem



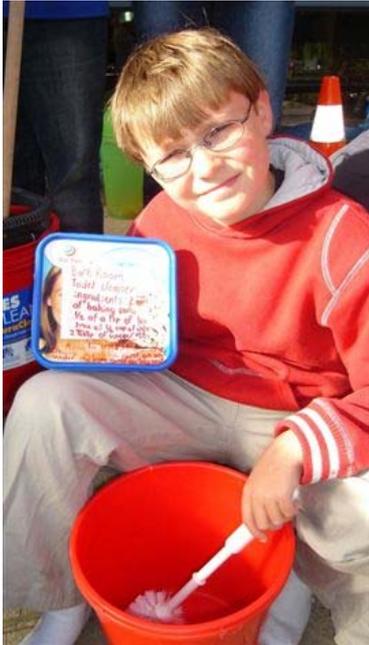
# Supporting materials

- Facilitator guide
- PowerPoint slides
- Are you prepared for any emergency?  
warm up quiz
- Card game - meet the neighbours
- Issues handout (emailable in advance)
- Action guide and checklists
- Wild foods handout
- Commitments handout

# Choice of practical activities

- Water purification
- Shelter building
- Pest free storage (and use of) dry food
- Edible wild foods
- Seed collection
- Bread making
- Preserving food: bottling, drying, pickles, chutney, jam
- Emergency toilet
- Fire building and lighting
- Grain and pulse sprouting

# Sustainable = resilient



Homemade non-toxic cleaners



Recycle and buy recycled



Use less water



Enjoy home grown foods

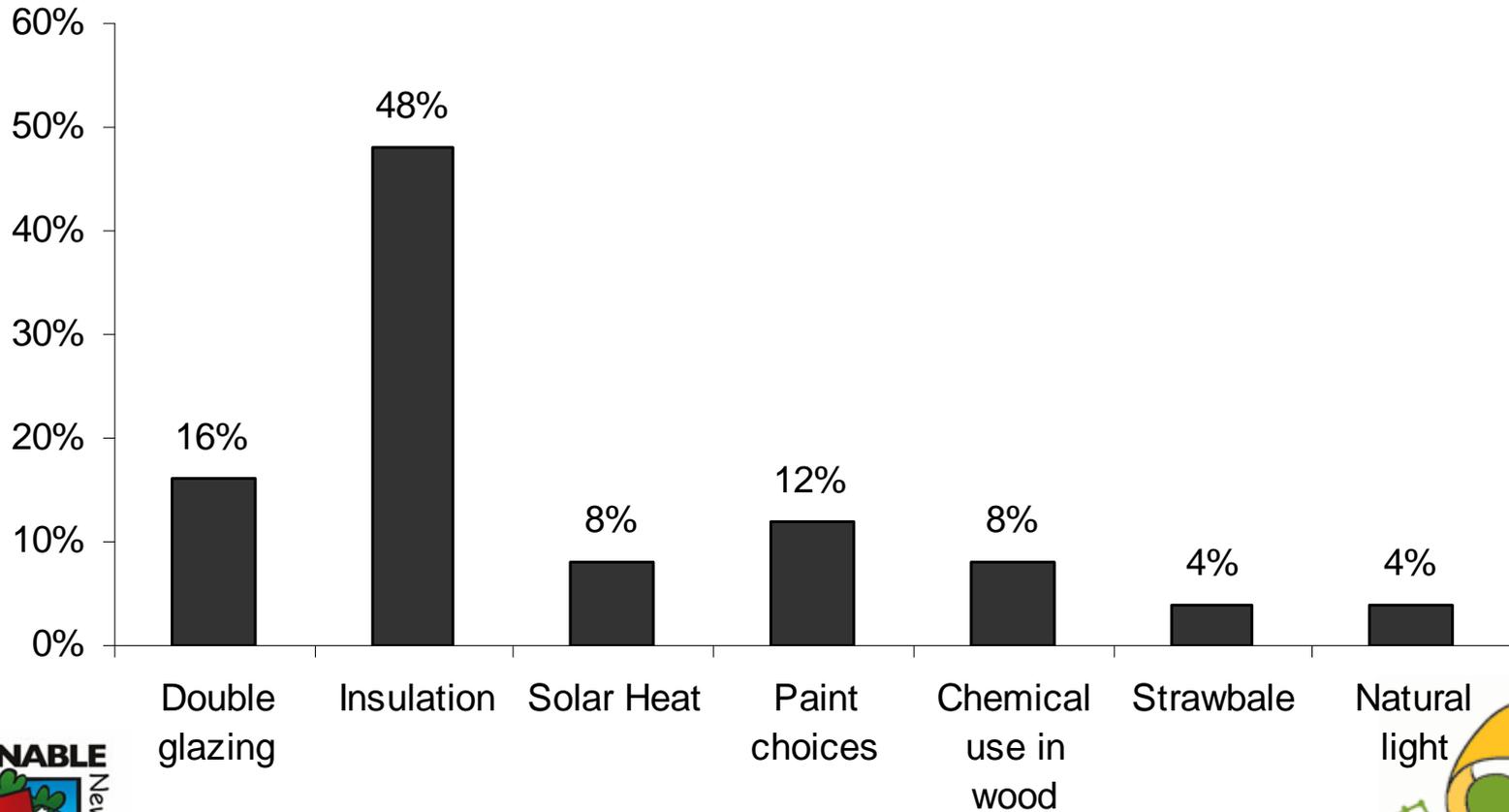


# Prompts for action

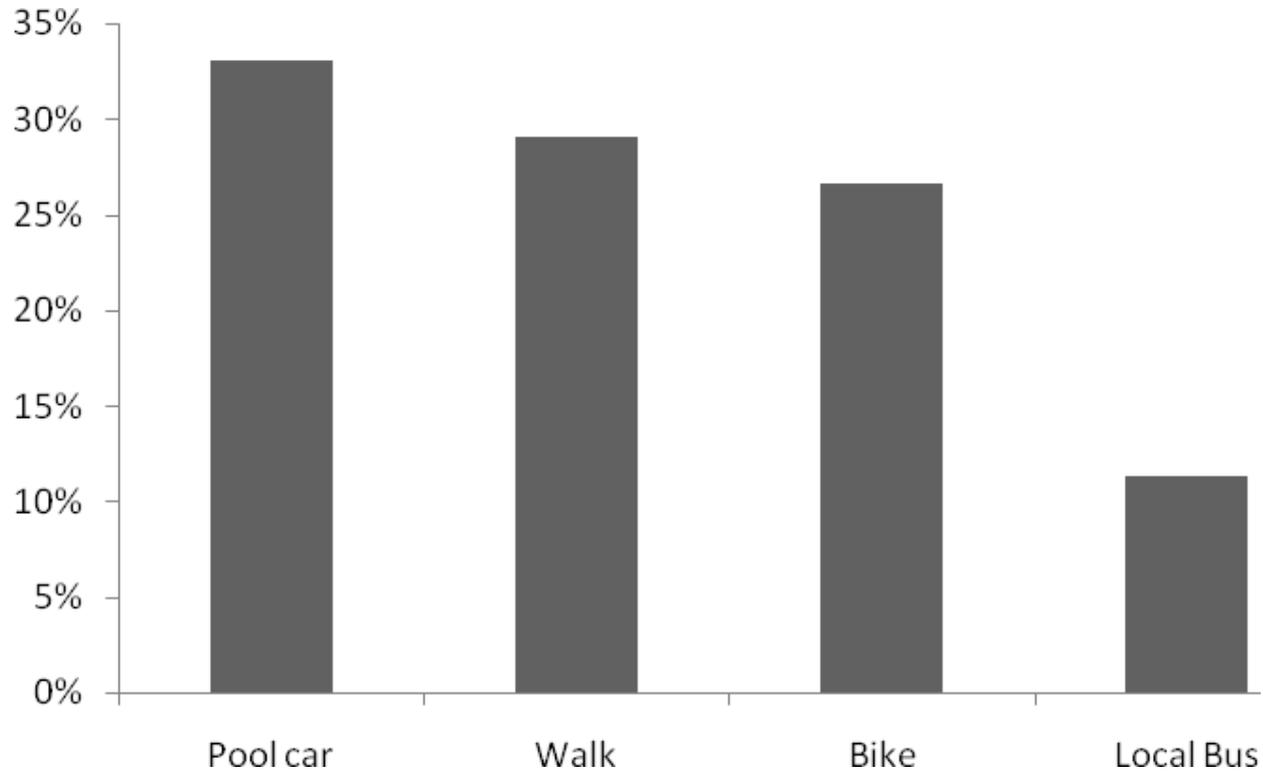
- Participants commit to one more resilient action
- What are the barriers to taking action and how can they be overcome?



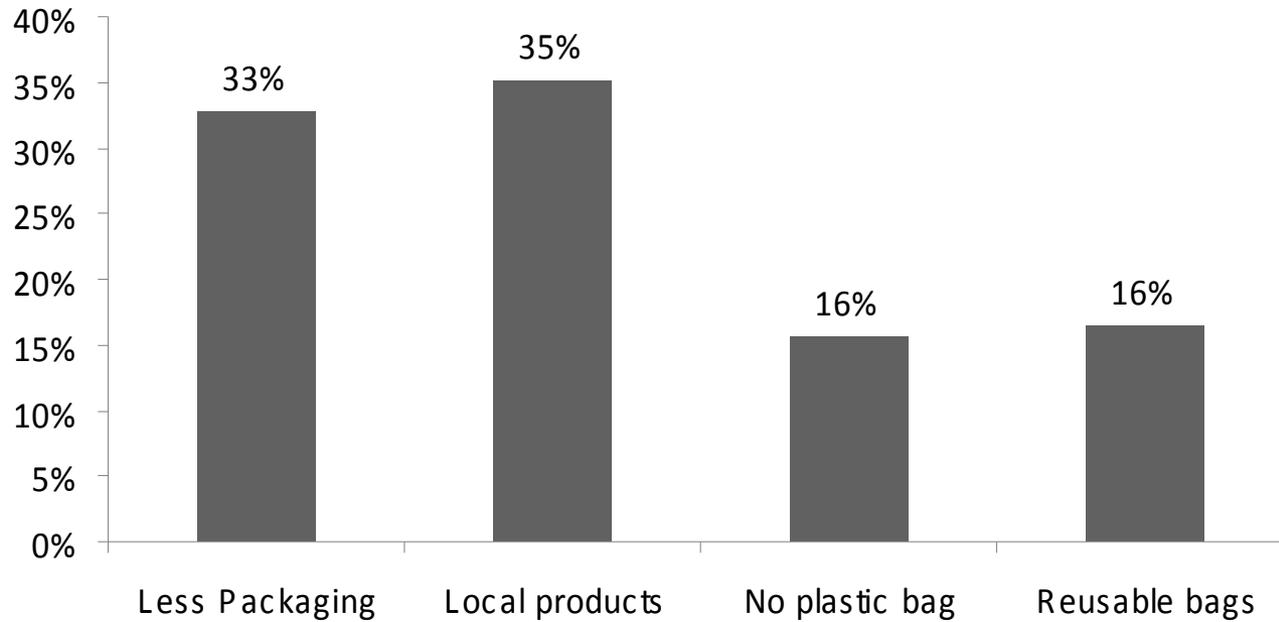
# Retrofits for homes



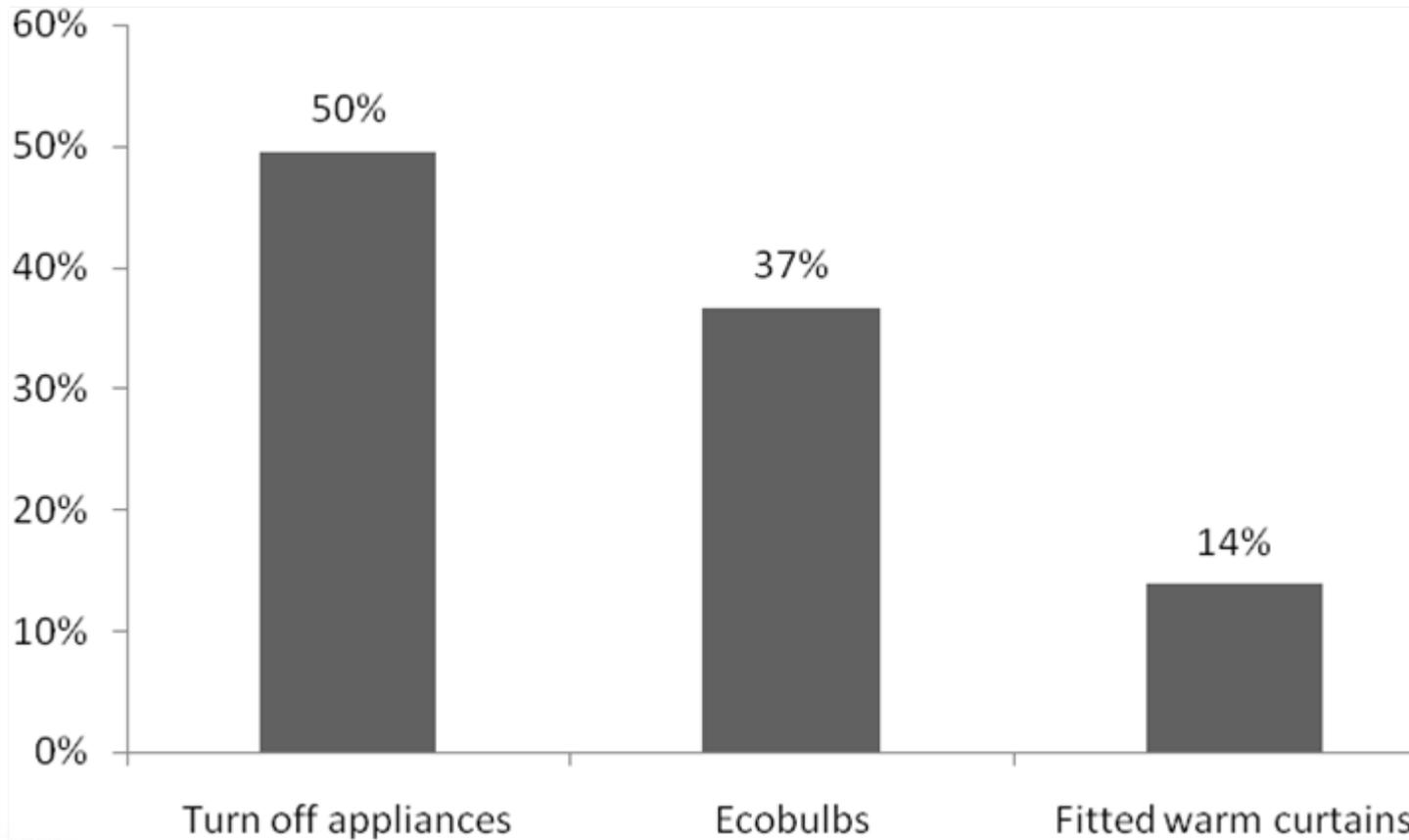
# Less car dependence



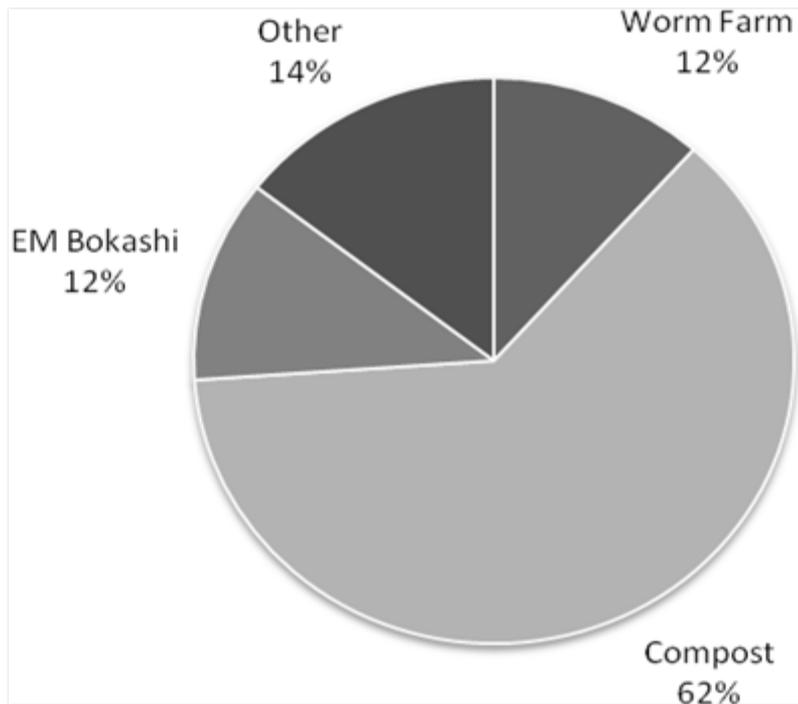
# Reduced packaging



# Top power saving actions

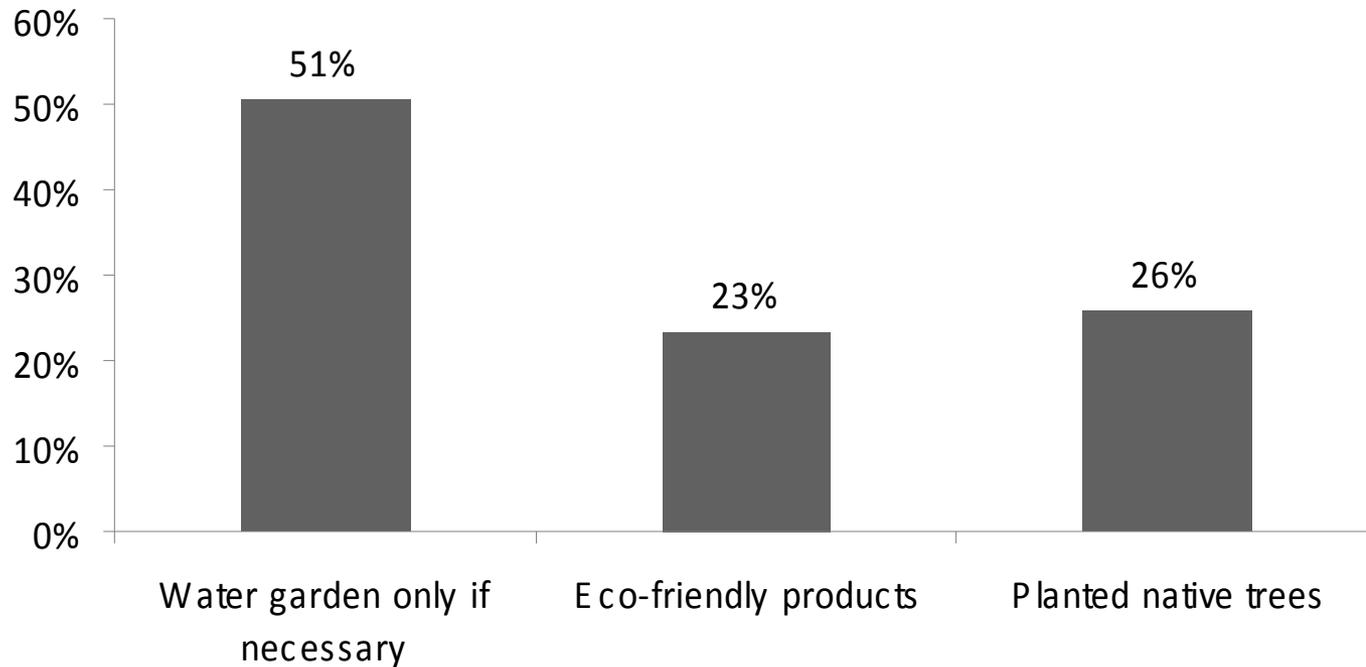


# Organic waste reduction

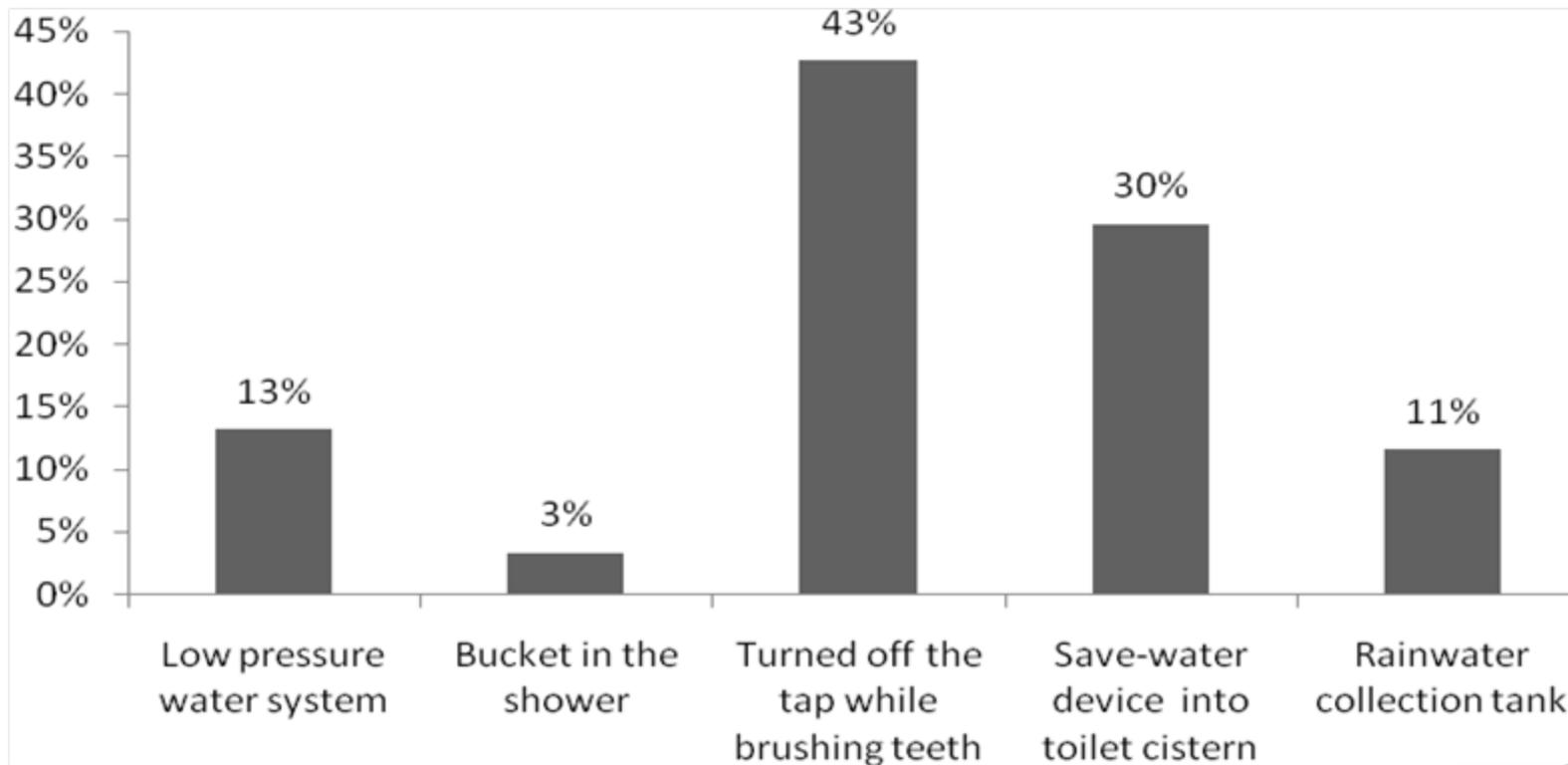


- Destination of organic scraps from SL course completers' kitchens:
- 88% recycling by compost, worms or EM Bokashi
- 5% others using municipal facilities
- Total 93%

# Behaving in the garden



# More efficient water use



# Getting the Message Out

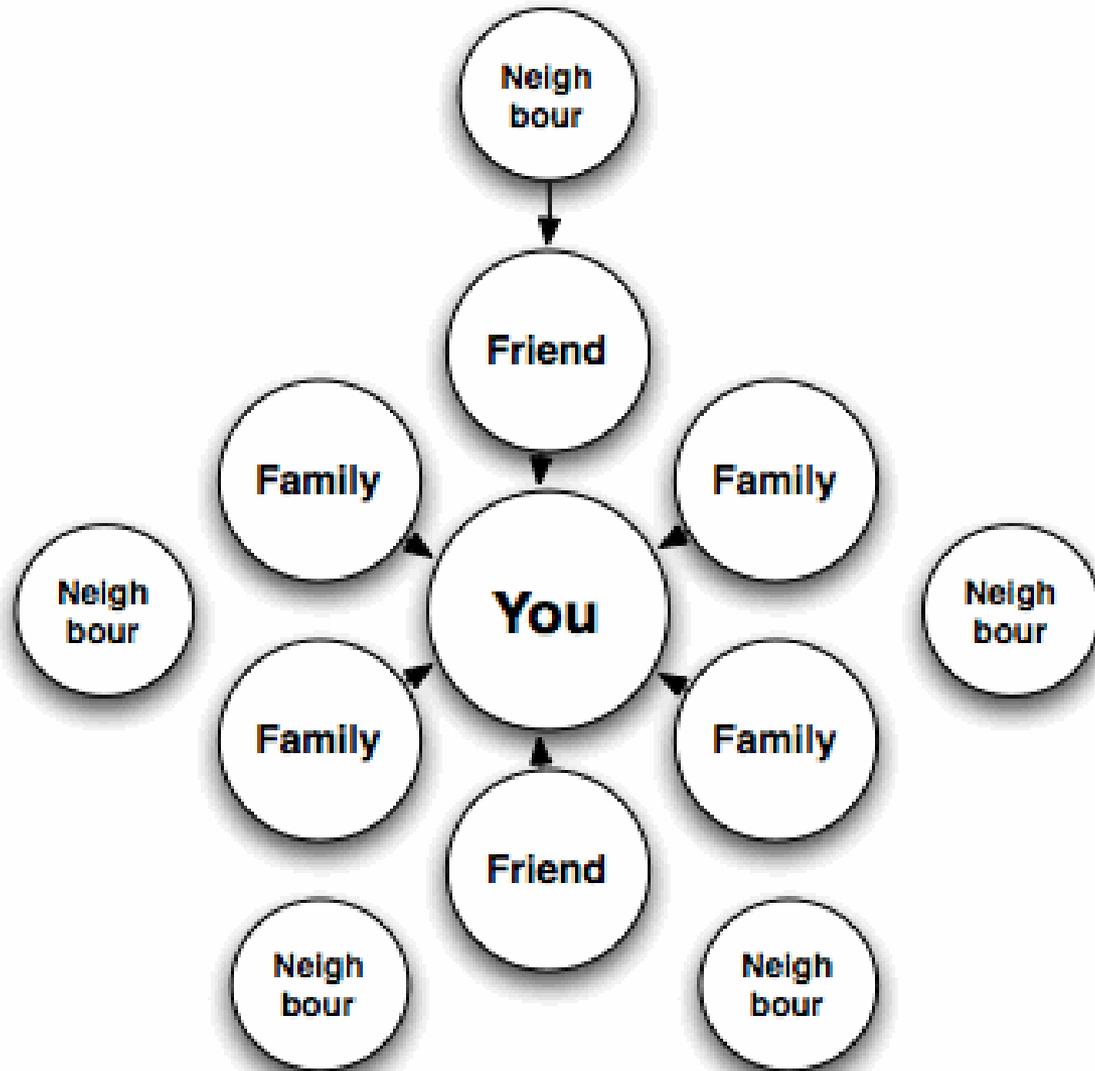
- Participants encouraged to influence their community towards sustainability:
  - Talk to neighbours about composting
  - Assist friends to set up their veggie gardens
  - Lobby retailers to reduce packaging
  - Keep involved with local government by submitting on transport or water...
- TALK is more than just words!



# Champions of Change

- Desire for social connection may outweigh need for self-reliance
- Structure of course encourages people to make changes at home and then bring learnings back to the class
- Older baby boomers look back on the 'kinder, slower' years of times gone by
- Younger generations showing awakened environmental consciousness, driven by excesses of consumerism they have inherited

# Personal Network



# Connecting nationwide



# Action stations!

- What direction can you take?
  - **L**earn more, take a course, have your house assessed
  - **A**ctivate more, join a group, lobby for political action
  - **U**rge your friends and family to take action
  - **G**row your own food, be resilient to food shortages
  - **H**arvest solar energy and water, make your home more resilient
- **LAUGH** and the world laughs with you!

