THE HONEYCOMB

Climate change affects all the cells of well-being honeycomb and connects them to one another.

Because it connects us with future generations, and with the rest of the planet, it **is a permanent lens through with well-being can be viewed**.

Living Standards	Housing and home	Education and life-long learning
Physical & mental health	Social connection	Belonging and Cultural Identity
		Time Use
Governance and institutions	Economy and Region	Environment
Mobility and Accessibility	Safety	

ACT Climate Change Council Input to Wellbeing Indicators

RESILIENCE

Due to the amount of greenhouse gases that humans have already emitted, and the slow rate at which society is progressing to a net zero emissions: **Global heating will continue.**

In order for sustained well-being, **communities will need resilience in order to recover quickly** from the shocks caused by the supercharged climate.

Living Standards

Housing and home

Education and life-long learning

Physical & mental health

Social connection

Belonging and Cultural Identity

Time Use

Governance and institutions

Economy and Region

Environment

Mobility and Accessibility

Safety

TRANSFORMATION

In order to limit global heating, thereby curbing climate change and avoiding its greatest risks, net **human emissions must drop to zero** in the next 20 years or so.

This **will require dramatically transformed communities** that work, move, live and learn in new ways that are aligned with a low carbon society.

Living Standards

Housing and home

Education and life-long learning

Physical & mental health

Social connection

Belonging and Cultural Identity

Time Use

Governance and institutions

Economy and Region

Environment

Mobility and Accessibility

Safety

CLIMATE AND WELL-BEING

Examining the well-being "honeycomb" through the lens of climate change, requires us to ask:
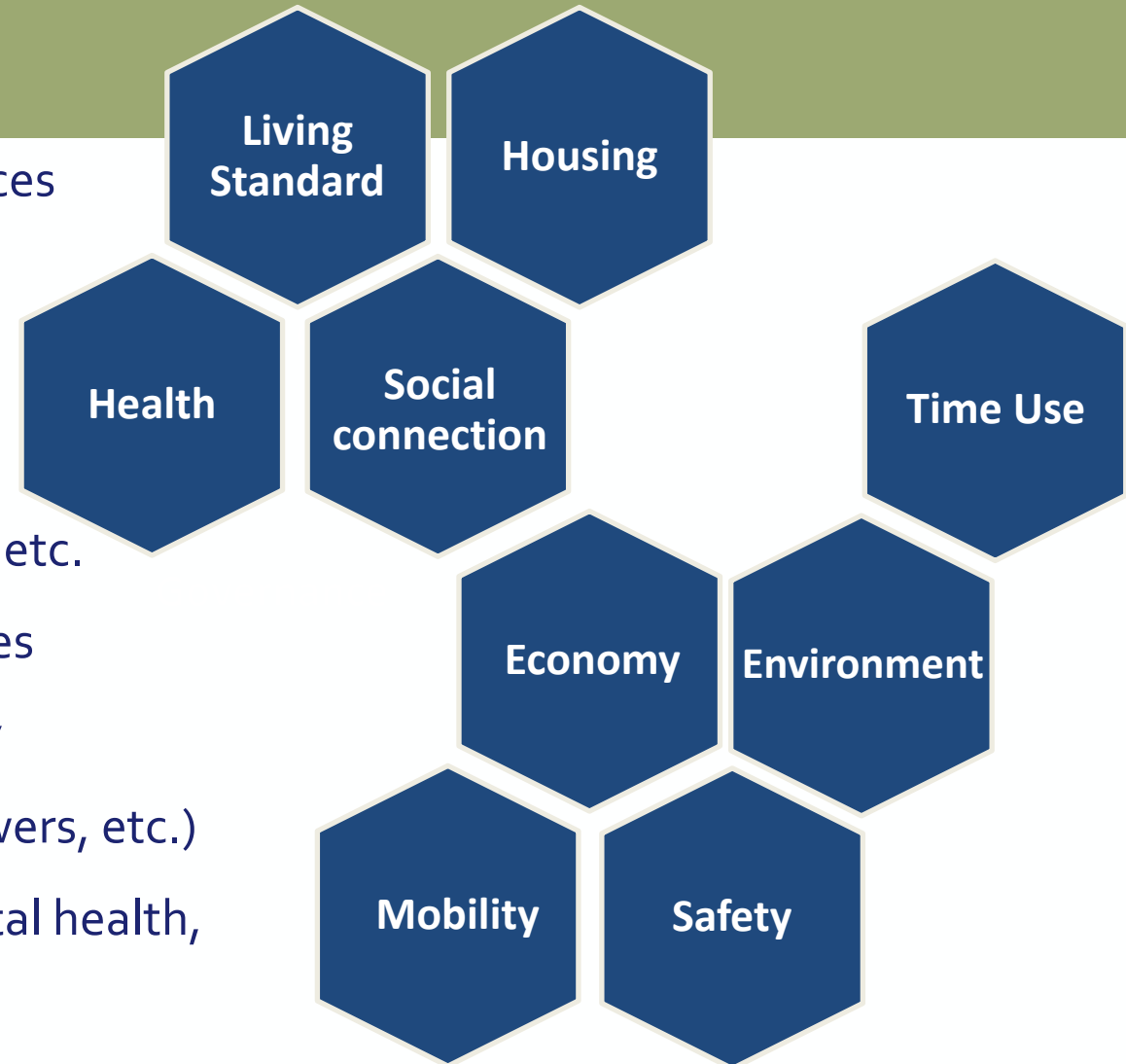
"How will climate change affect the ability of different ACT communities to respond resiliently and transform quickly in every aspect of their well-being?"

Answering this question requires **measuring effects with indicators.**

Living Standards

Housing and home

Education and life-long learning

Physical & mental health

Social connection

Belonging and Cultural Identity

Time Use

Governance and institutions

Economy and Region

Environment

Mobility and Accessibility

Safety

INCREASED HEAT AND HEATWAVES

→ Need for climate appropriate homes & workplaces

→ Increased health risks, particularly vulnerable populations (elderly, isolated, homeless, poor)

→ Decreased time outside at certain times of day affecting students, sport and social gatherings, etc.

→ Effects on living infrastructure and natural spaces

→ Considerable effects for some sectors of society (e.g., construction, landscaping, homeless, growers, etc.)

→ Increased personal stress, affecting crime, mental health, work productivity, domestic violence, etc.

Living Standard

Housing

Health

Social connection

Time Use

Economy

Environment

Mobility

Safety

MORE HIGH FIRE DANGER DAYS

→ Fire safe homes and workplaces required

→ Increased reliance on emergency services, regional support, and personal community

→ Increased health risks, direct and indirect (e.g., burns, poor air quality, mental stress)

→ Need for increased fire-fighting capability

→ Personal safety concerns

→ Potential loss of infrastructure and natural spaces

→ Learning to thrive in high fire danger

→ Potential for severe, negative economic impact

Living Standard

Housing

Learning

Health

Social connection

Governance

Economy

Environment

Safety

MORE EXTREME WEATHER & STORMS

→ Negative economic and personal consequences due to damage to person and property, and interruptions to business and daily life

→ Increased reliance on emergency services and personal community

→ Personal safety concerns

→ Damage to infrastructure and natural spaces

→ Inability to secure insurance on some properties

→ Distrust in institutions not seen to be responding appropriately, with associated mental health risks

Living Standard

Housing

Health

Social connection

Governance

Economy

Environment

Mobility

Safety

LESS COLD WEATHER RAINFALL

→ Water management even more crucial

→ Increased drought affects flora and fauna

→ Some ecosystems no longer viable

→ New requirements for natural, grey, and waste water management

→ Living infrastructure highly vulnerable

→ Potential for food shortages/price increases

→ Transition to drought-resilient life becomes norm

→ Some economic sectors no longer viable without major transition

Living Standard

Housing

Learning

Health

Economy

Environment

ALTERED ECOSYSTEMS

→ Valuing the economic and social benefits of healthy ecosystems

→ Cross-border ecosystem issues become urgent

→ Fostering sense of identity as part of larger ecosystem

→ Nourishing micro ecosystems in personal spaces

→ Supporting transition of land use and growers

→ Acknowledging and assuaging a sense of ecosystem loss

→ Creation and maintenance of appropriate ecosystem "safe zones"

→ Increased monitoring and reporting of endangered ecosystems

Housing

Learning

Health

Identity

Governance

Economy

Environment

TRANSITION TO NET ZERO EMISSIONS

➡ New industries and skills become paramount,

with systemic changes to economy

➡ Building standards radically altered/improved

➡ Altered transportation modes supported

➡ Changed relationships with external regions

➡ Reframing of waste and consumption

➡ Evolving understanding of relationship to natural world

➡ Zero-emissions is a principal tenet of responsibility

➡ Community justice implemented for transition cohesion

➡ Radical innovation in physical and social application

Living Standard

Housing

Learning

Social connection

Identity

Governance

Economy

Environment

Mobility

POSSIBLE CLIMATE WELL-BEING INDICATORS (1)

➡️ Average ACTHers rating for homes (separately for sold and leased once the latter is available)

➡️ Hospital (physical and mental) admissions, and mortality versus climate extreme events

➡️ Level of awareness and satisfaction of ACT government climate strategy

➡️ Self-assessed sense of safety during extreme climate-related events

➡️ Average NABERS ratings for public infrastructure (hospitals, schools, shopping centers, etc)

➡️ Systematic measurement of changes in the urban heat island effect across the ACT

➡️ Incidence of respiratory disease and other air-quality indicators correlated with climate events and temperature

➡️ Correlation between crime and domestic violence with climate extremes, especially temperature

➡️ Cost, type, and amount of energy use per capita (measured in kWh or MJ as appropriate)

POSSIBLE CLIMATE WELL-BEING INDICATORS (2)

➡ Residential and commercial energy use correlated with temperature

➡ Average Green Star rating for new building and development projects

➡ Active transport use measured against temperature and climate extreme events

and, related to ACT government policy in place (CC Strategy and Living Infrastructure):

➡ Annual reporting against ACT legislated interim GHG emissions for 2020, 2025, 2030, 2040, and 2045.

➡ ACT travel data reported at least every two years on a range of journey types (CCS Action 9.2)

➡ Measure of government decisions, policies, and procurements that consider social cost of carbon and climate adaptation costs (CCS Action 5.5)

➡ Progress against 30% tree cover and 30% permeable surfaces target (Living Infra. Action 2)