

Healthy communities and healthy forests



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WELLBEING: FROM 'NICE TO HAVE' TO BOTTOM LINE ESSENTIAL

International shift to measuring progress based on the wellbeing of their population, rather than solely on economic growth.



International Day of Happiness
20 March

WORLD
HAPPINESS
REPORT
2017



OECD
Better Life
Index

Why invest in wellbeing for residents?

- Health spend: 10.3% Aus GDP¹
- Mental ill-health: 4% Aus GDP (>\$60 billion)
- Overweight/obesity - \$8.6b spend 2011-12
- People with higher wellbeing live 7-10 years longer
→ but spend less on healthcare³
- Building wellbeing has similar benefits to reducing smoking rates in terms of health system burden³

¹Australian Institute of Health and Welfare, Health Expenditure Australia 2015-16

²Australian Government Mental Health Commission

³Veenhoven, R. (2008). Healthy happiness: Effects of happiness on physical health and the consequences for preventive health care. *Journal of happiness studies*, 9(3), 449-469.

What are the BIG factors that determine wellbeing of individuals?



Wellbeing: *“a state ... in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community”* - World Health Organization, 2013



Forests can play a role in almost all aspects of our individual wellbeing by changing the opportunities we have for health, social connection, a good standard of living, amenity, and security.

What are the BIG factors that change how well communities support wellbeing of the people living in them?



"... a healthy community is one in which all citizens can be assured of a decent quality of life – economically, physically, environmentally, socially, and politically." - KU Work Group for Community Health and Development (2014)



Forests play important roles in community wellbeing. However, sometimes there are pressures to increase aspects of community wellbeing in the short term by clearing or over-exploiting forests.

How do healthy forests support healthy communities?



Source: Millennium Ecosystem Assessment

ARROW'S COLOR	Potential for mediation by socioeconomic factors	ARROW'S WIDTH	Intensity of linkages between ecosystem services and human well-being
Light Yellow	Low	Thin line	Weak
Medium Yellow	Medium	Medium line	Medium
Dark Yellow/Brown	High	Thick line	Strong

Ecosystem services that support human wellbeing, Millennium Ecosystem Assessment (Source: <http://www.millenniumassessment.org/documents/document.356.aspx.pdf>)

Multiple frameworks show that healthy forest ecosystems support multiple aspects of human wellbeing. Why do we find it so hard to maintain forest health, despite understanding its importance to human wellbeing?

WELLBEING ALONG THE SUPPLY CHAIN

In the forest

- Recreation
- Nature connection
- Challenge



Forest industry workers

- Physical safety
- Income
- Mental health
- Equity of opportunity



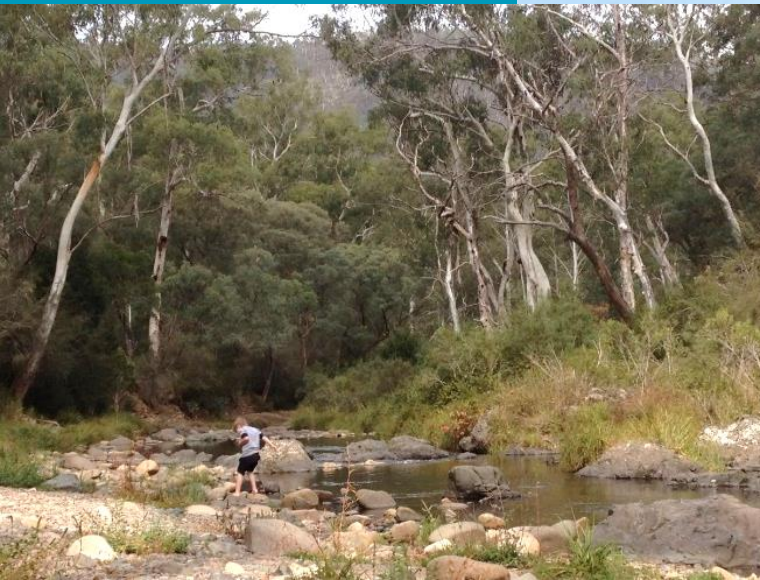
Forest industry communities

- Safety
- Jobs (economy)
- Friendliness, fair treatment
- Good neighbours (environment, amenity, infrastructure, weeds/pests, fire...)



Consumers

- Product safety Product uses (shelter, sustenance, warmth, clothing)
- Biophilia



In the forest – nature connection

'...access to, and contact with, various forms of nature does have multiple positive effects on human health, particularly in urban environments'
- Maller et al. 2009

Reduced stress,
depression, anxiety

Improved self-
esteem

Improved mood
(more happy,
satisfied, calm)

Reduced blood
pressure

Improved
concentration,
attention – higher
productivity

Greater benefits
from exercise
compared to non-
nature setting

Reduced heart rate

More frequent
engagement in
physical exercise

Faster recovery
from physiological
stress

Useful references: Ryan, C. O., Browning, W. D., Clancy, J. O., Andrews, S. L., & Kallianpurkar, N. B. (2014). Biophilic design patterns: emerging nature-based parameters for health and well-being in the built environment. *International Journal of Architectural Research: ArchNet-IJAR*, 8(2), 62-76; Hug, S. M., Hartig, T., Hansmann, R., Seeland, K., & Hornung, R. (2009). Restorative qualities of indoor and outdoor exercise settings as predictors of exercise frequency. *Health & place*, 15(4), 971-980; Gladwell, V. F., Brown, D. K., Wood, C., Sandercock, G. R., & Barton, J. L. (2013). The great outdoors: how a green exercise environment can benefit all. *Extreme physiology & medicine*, 2(1), 3.

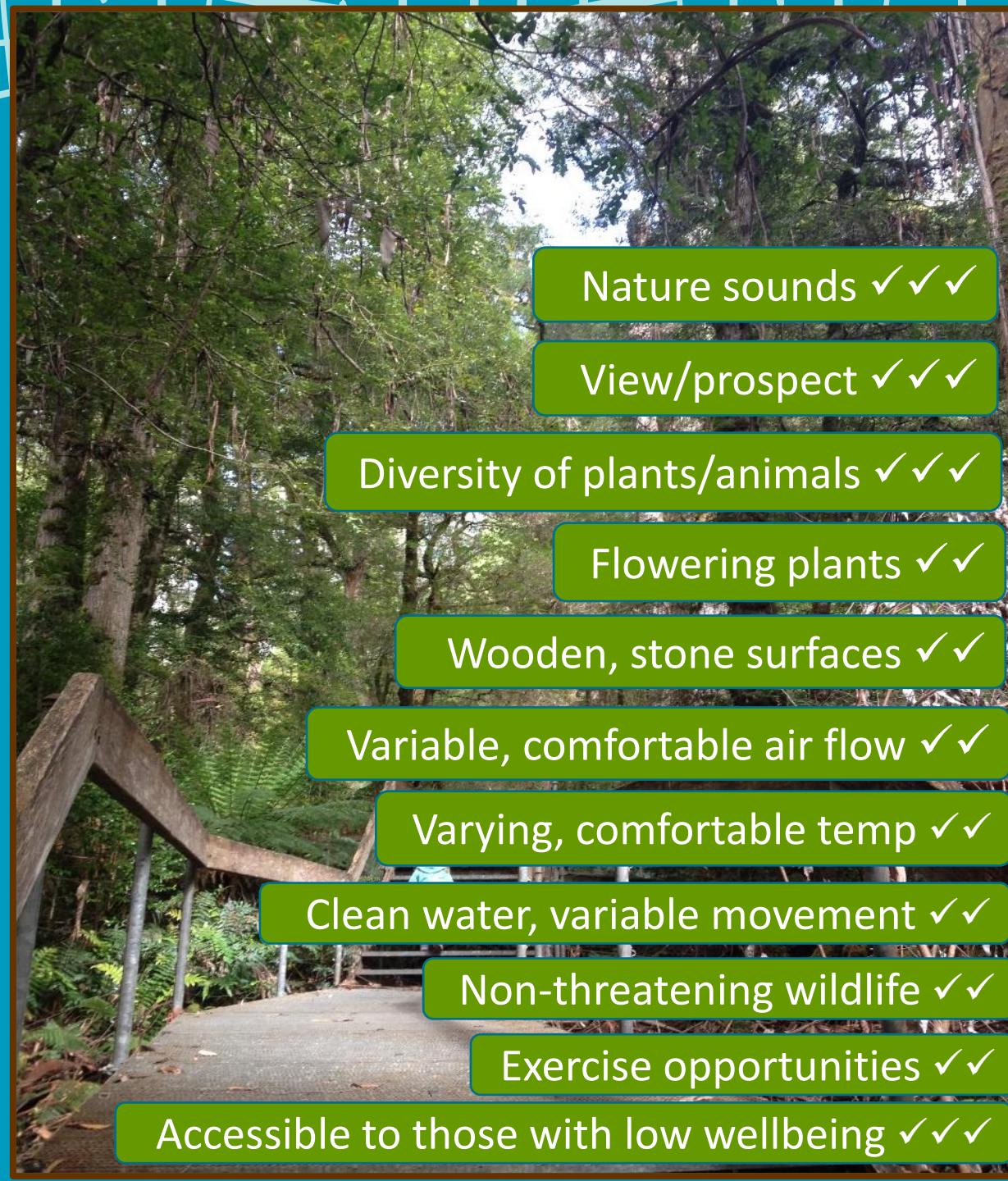
Winner of Two Pulitzer Prizes

Biophilia

EDWARD O. WILSON



The human bond with other species



Nature sounds ✓✓✓

View/prospect ✓✓✓

Diversity of plants/animals ✓✓✓

Flowering plants ✓✓

Wooden, stone surfaces ✓✓

Variable, comfortable air flow ✓✓

Varying, comfortable temp ✓✓

Clean water, variable movement ✓✓

Non-threatening wildlife ✓✓

Exercise opportunities ✓✓

Accessible to those with low wellbeing ✓✓✓

× × × Traffic sounds

× × Dense vegetation

× × Low diversity e.g. lawn

× Dead/ brown vegetation

× Plastic, bitumen

× × No or too much air flow

× × Uncomfortable temp

× Poor quality water, particularly still

× × Wildlife viewed as dangerous/dirty

× × Difficult to exercise

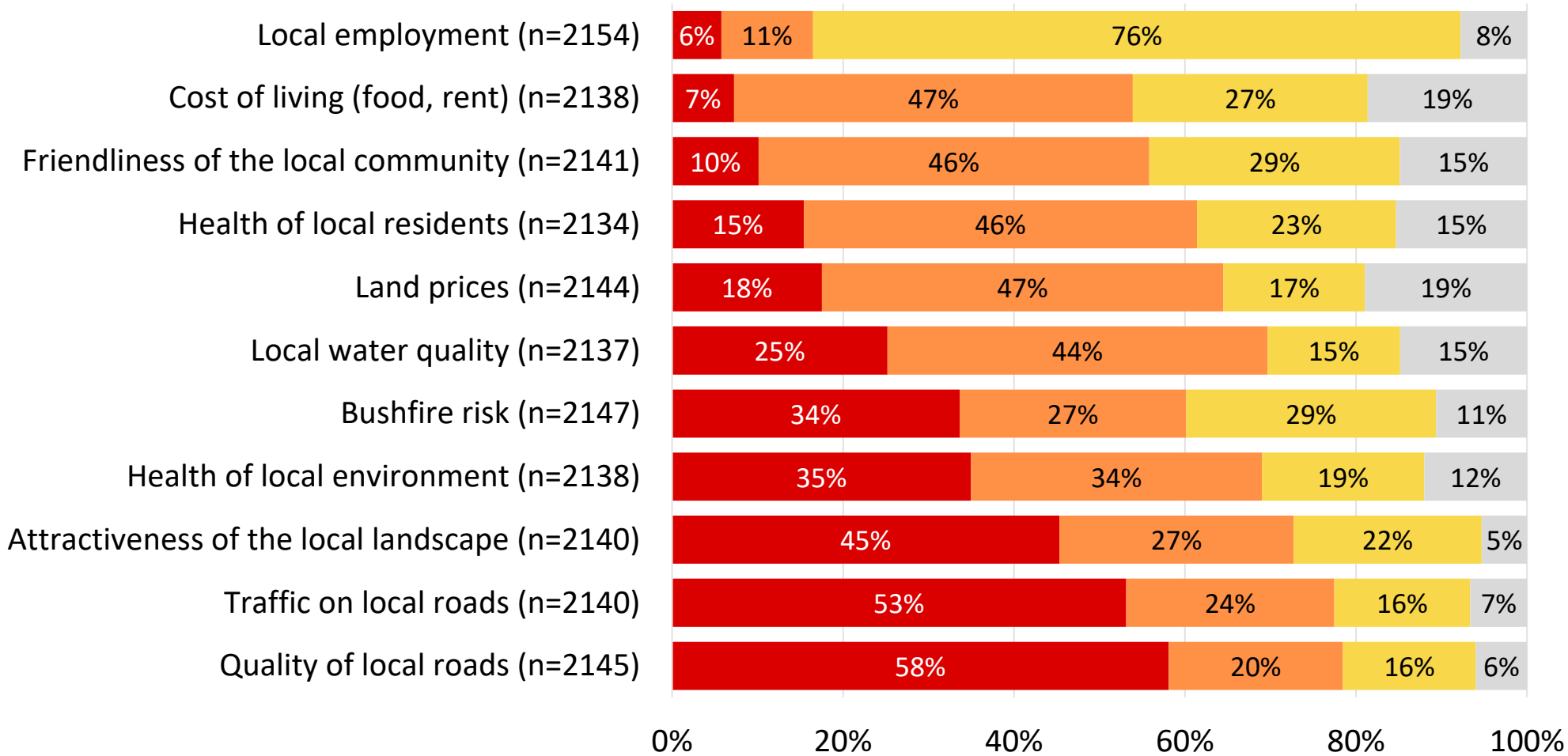
× × Difficult to access/use

However ...
particular
forms of
nature support
these positive
outcomes.

Are all optimal
for forest
health?

Forest industry communities - is the commercial forest industry (native forests & plantation) viewed as good or bad for community wellbeing?

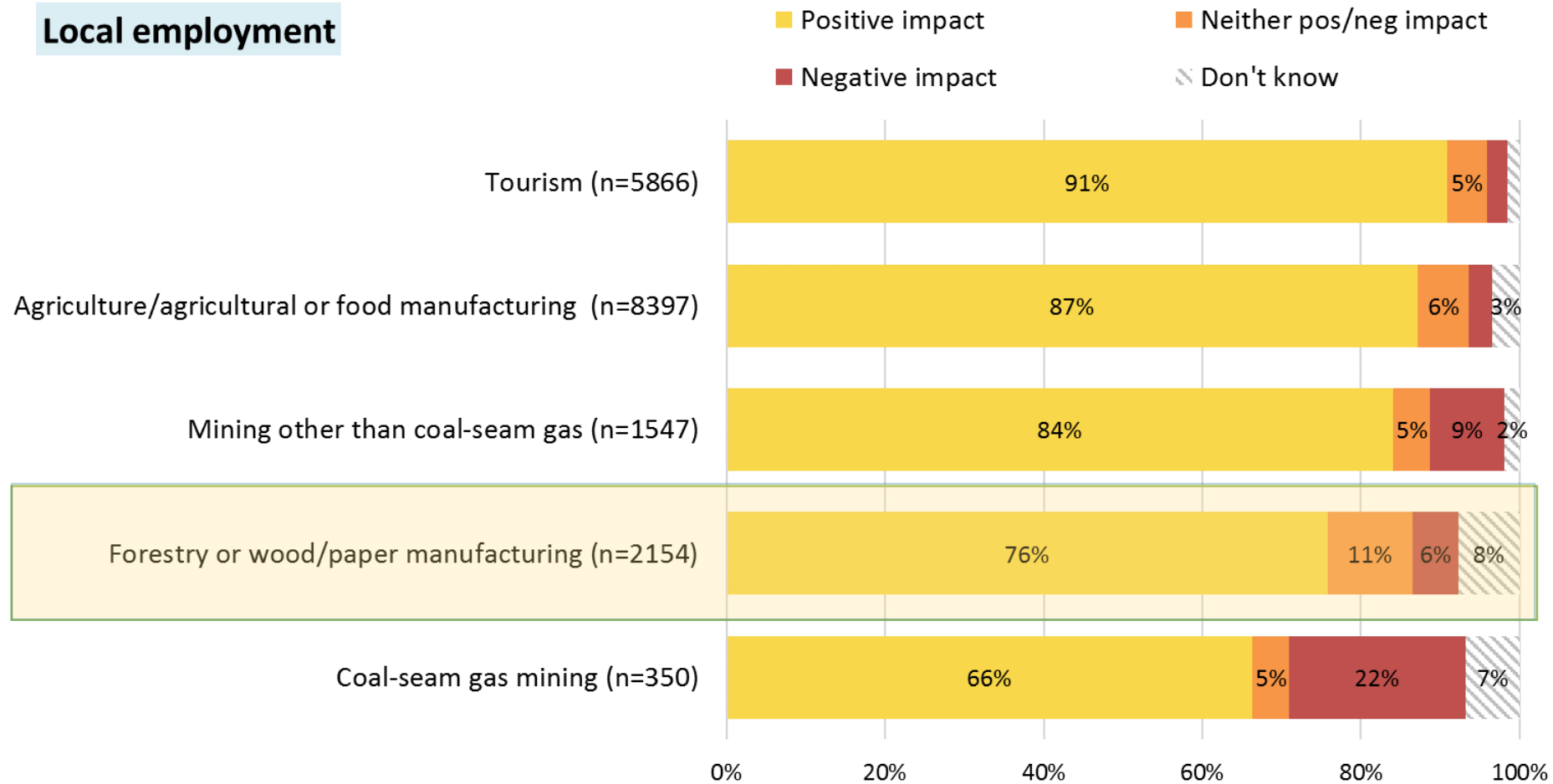
■ Negative impact
 ■ Neither negative or positive impact
 ■ Positive impact
 ■ Don't know



As part of the Regional Wellbeing Survey, people were asked which industries were important in their local community, including native forest harvesting, timber plantations, and wood and paper product manufacturing. For each important industry, they were then asked whether they felt it had positive or negative impacts. Data shown are for 2016 – and have remained near identical since. They are similar for native forests and plantations.

Forestry in the local community – how is the industry viewed?

Local employment



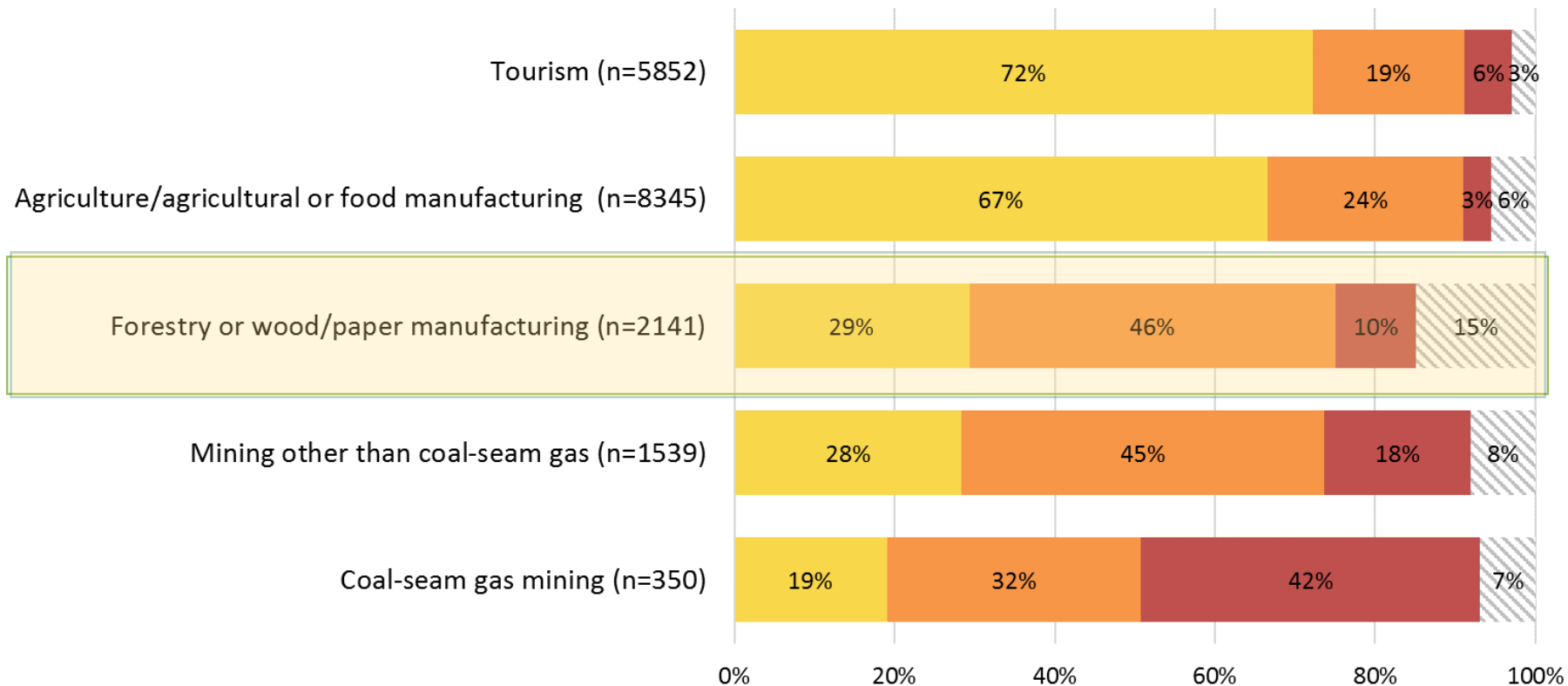
Viewed as providing positive impacts on local jobs by most ...

Note: Only people who felt industry was important in their local region were asked this question

Forestry in the local community – how is the industry viewed?

Friendliness of the local community

Positive impact Neither pos/neg impact
Negative impact Don't know

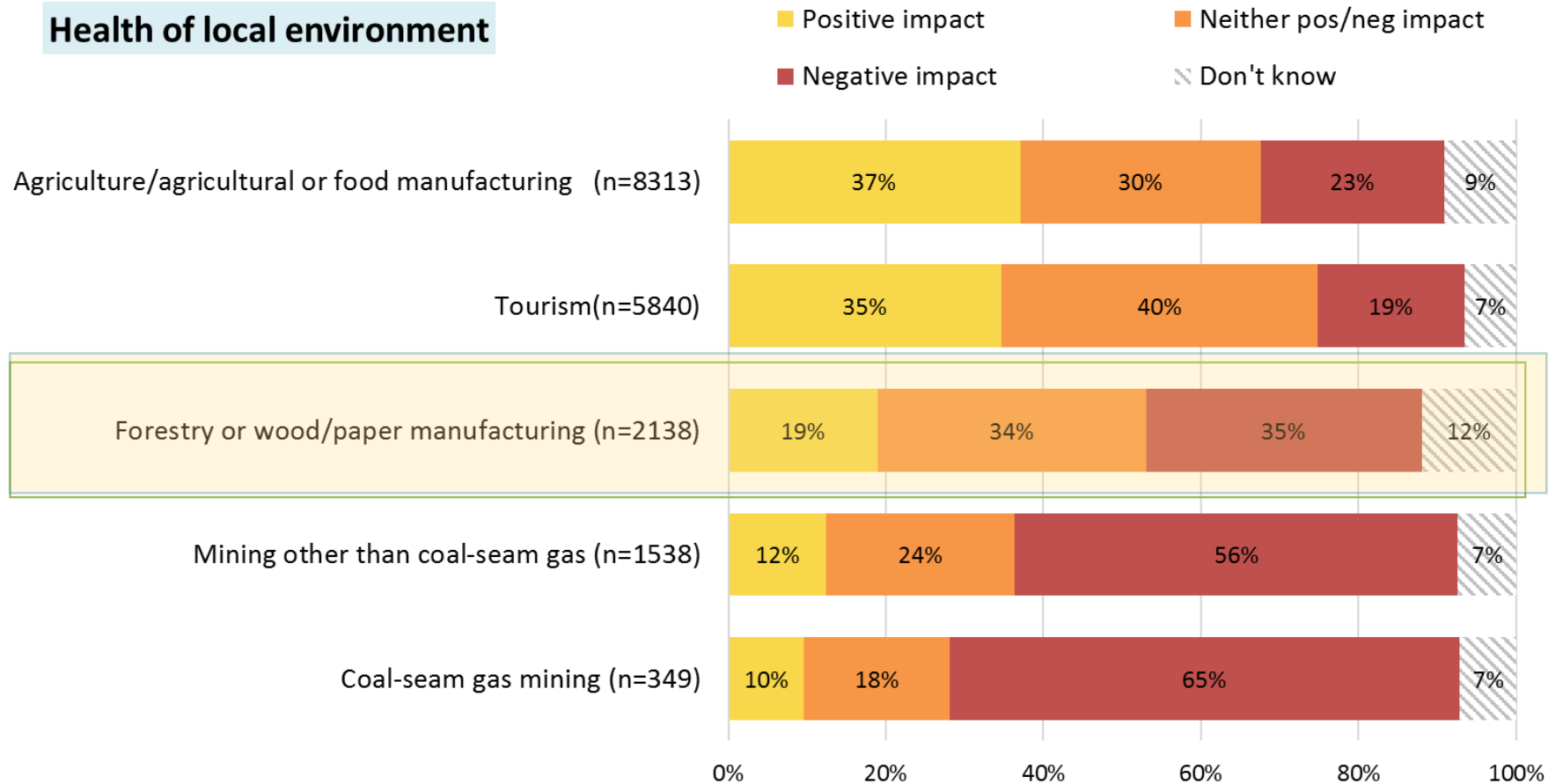


... but not viewed by many as contributing to friendliness of communities

Note: Only people who felt industry was important in their local region were asked this question

Forestry in the local community – how is the industry viewed?

Health of local environment



... and as less beneficial for the environment than agriculture or tourism (but better than mining)

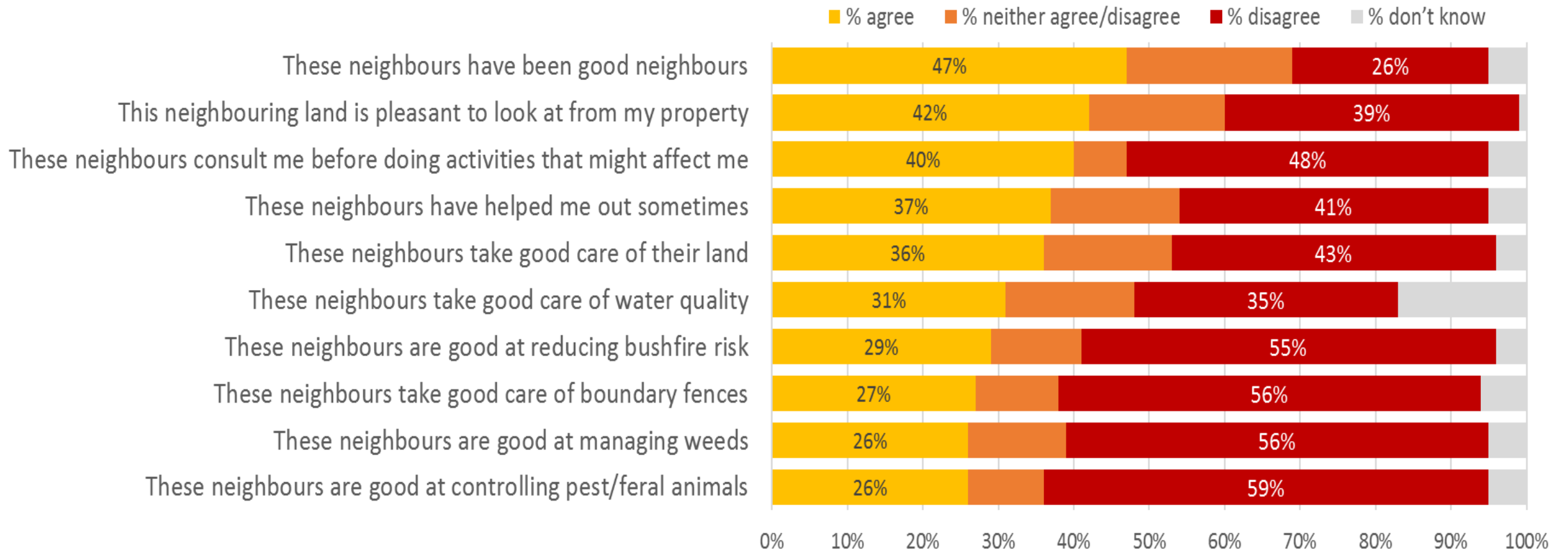
Similar findings for impact on landscape aesthetics, water quality

Note: Only people who felt industry was important in their local region were asked this question

The plantation industry can have positive or negative effects on wellbeing of those it neighbours

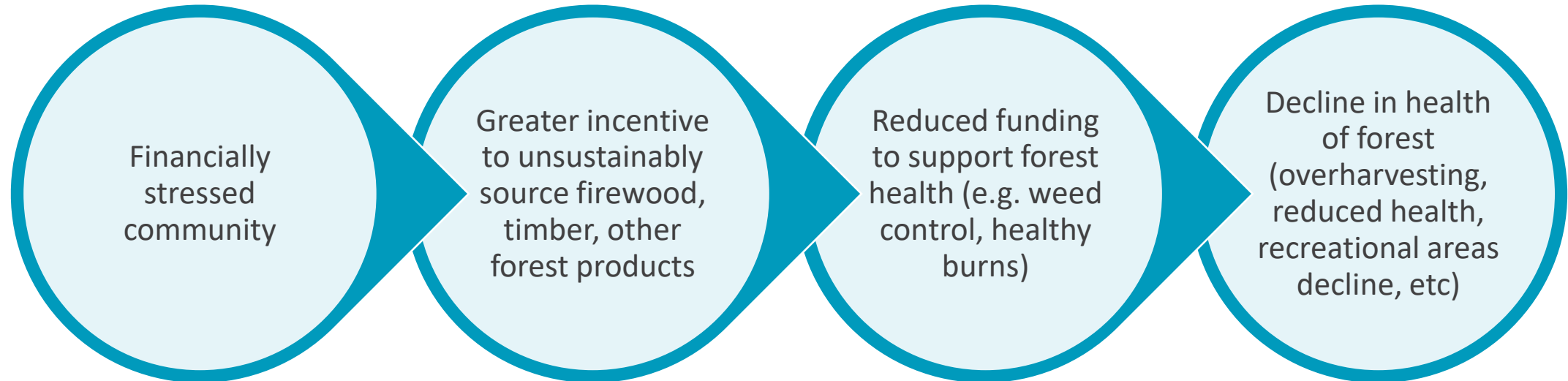
261 landholders living next door to timber plantations were asked how they found their timber plantation neighbours

What do landholders think of their plantation neighbours?



As well as asking how healthy forests contribute to human health, we should ask how healthy communities support healthy forests

To understand the importance of this, consider the risk to forest health that can result from financial stress in a community



Healthy communities and healthy forests are interlinked ... which means that the opposite is true as well

Changes to forest health can negatively impact human wellbeing – through changing our opportunities for employment, recreation, access to clean water and air, and our safety. The impacts of climate change will threaten forest health – and through this human health.



Socio-economic impacts of the softwood plantation industry:
Examining a post-bushfire salvage period
Murray Region Forestry Hub
October 2023
Project number: MURR-2021-011



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¹ Health Research Institute, University of Canberra
² BDO EconSearch
³ Centre for Environmental Governance, University of Canberra



Do forests have to support human health to be deserving of their own health?

Sometimes we need to invest in actions that support forest health, even if it isn't the optimal action for current human wellbeing at that point in time.



Often good for forest ecosystem health – but not necessarily for human wellbeing	Often good for forest & human wellbeing	Often good for human wellbeing – but not always for forest health
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Unpleasant plants and animals, dead/messy/thick vegetation e.g. dead trees, sticks on ground	Diversity of plants and animals – up to a point	Green, flowering plants
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Reducing human access	Managed human access – viewpoints where direct access not appropriate	Increasing human access
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Connectivity between patches without risk of harm to migrating animals	Careful design of human vs animal movement	Exercise paths e.g. bike paths, seats, BBQ areas
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Risky/unpleasant vegetation e.g. trees that shed branches, wetlands that might be smelly	Enabling vegetation that supports biodiversity while sensibly managing human risk	Reduce risk of being hit by branches, exposure to bird/animal droppings, leaf fall on paths
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How do we move towards the 'virtuous cycle'?

Worldwide, there are countless examples in which our desire to support human wellbeing through nature connection, use of timber products, cause harm to forests.

Equally, there are many examples in which our understanding of the importance of forests for human health and wellbeing has led us to develop social, cultural, political and economic norms to support long-term forest health.

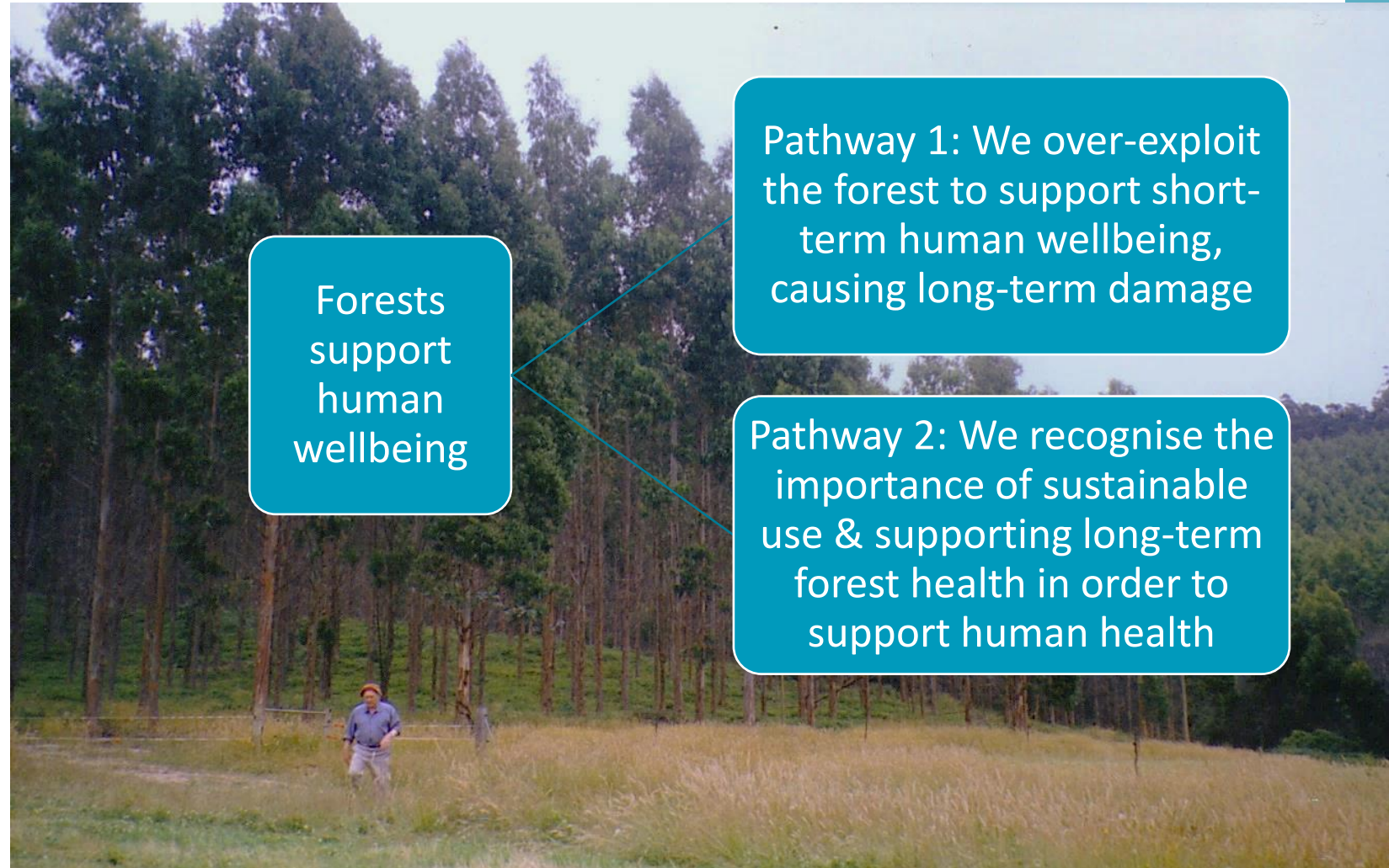
To support healthy communities AND healthy forests, we need to identify what helps us go down the pathway that leads to a positive reinforcing cycle – the 'virtuous cycle' in which human and forest wellbeing reinforce each other.



How do we move towards the ‘virtuous cycle’?

To ensure we take pathway 2, we need to address barriers that break the linkage between human wellbeing and forest health:

- Short vs long term feedback cycles – it is easy to support human health in the short term by exploiting forests, without having to face the long-term consequences
- Misattribution – where we don’t realise that forests are supporting wellbeing, so don’t support maintaining forest activities
- Lack of knowledge – of connections between forest health and human wellbeing



To achieve the 'virtuous cycle' we have to be willing to support forest health even where there are risks to human health & wellbeing

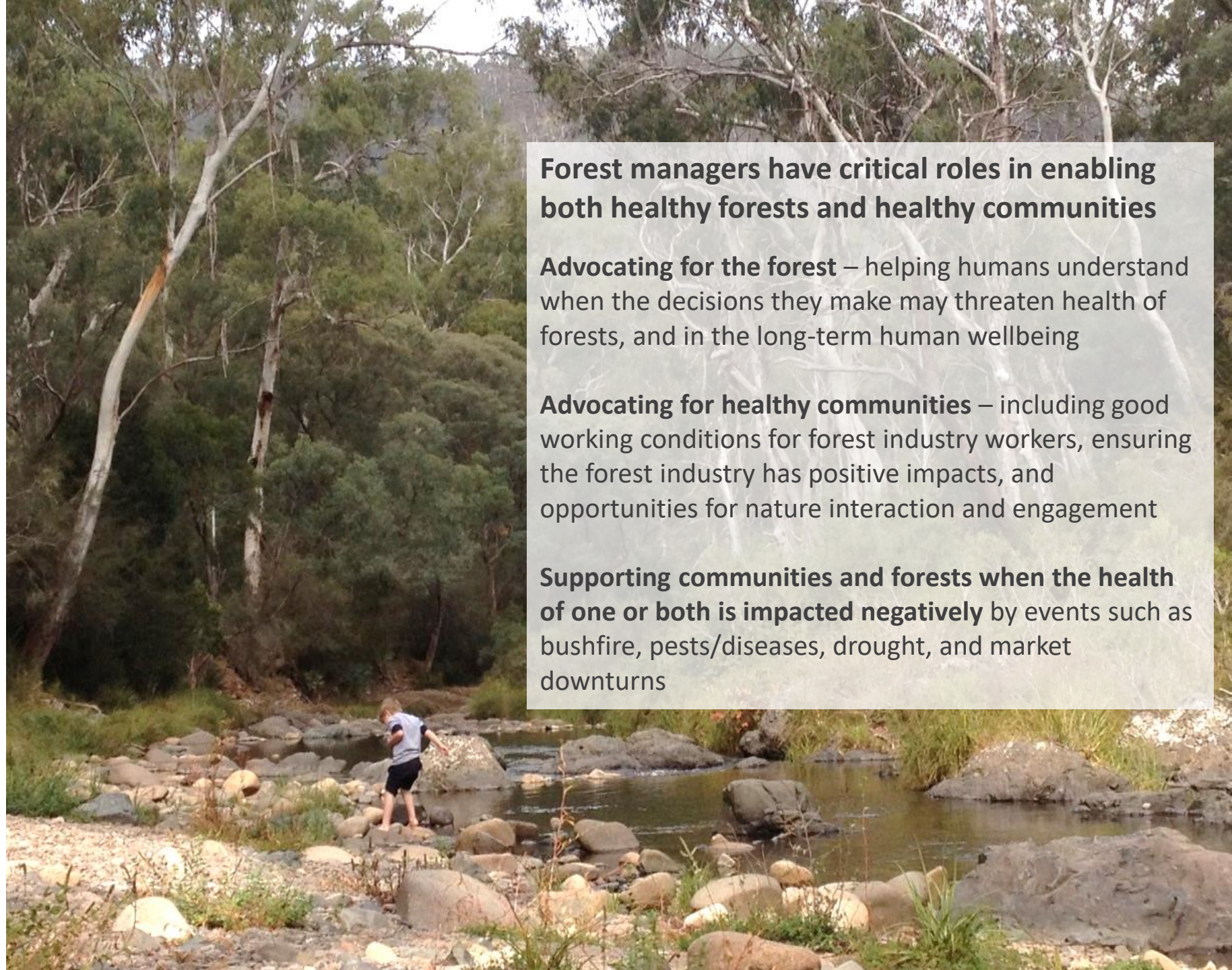


Some conclusions

We need to stop over-simplifying the connection between healthy forests and healthy communities.

Genuinely supporting both healthy forests and healthy communities requires enabling people to make better choices that support the wellbeing of future generations of both humans and forests.

Forest managers are critical to achieving this.



Forest managers have critical roles in enabling both healthy forests and healthy communities

Advocating for the forest – helping humans understand when the decisions they make may threaten health of forests, and in the long-term human wellbeing

Advocating for healthy communities – including good working conditions for forest industry workers, ensuring the forest industry has positive impacts, and opportunities for nature interaction and engagement

Supporting communities and forests when the health of one or both is impacted negatively by events such as bushfire, pests/diseases, drought, and market downturns