



Answer to question:

PARLIAMENTARY JOINT STANDING COMMITTEE ON MIGRATION

MIGRATION, PATHWAY TO NATION BUILDING INQUIRY

QUESTION: CHAIR: What do you ultimately see as the sustainable population level for the country? If you have a figure, I would appreciate it. I'm happy for you to take it on notice.

ANSWER:

Dear Ms Vamvakinou

Thank you for the recent opportunity to appear at a public hearing of the inquiry. At that hearing, you invited Sustainable Population Australia to supply 'on notice' more information about what is a sustainable population level for Australia. We are pleased to offer the following points to assist the committee's deliberations.

As a starting point we will clarify what we mean by sustainability. The Oxford dictionary defines sustainability as the 'avoidance of the depletion of natural resources in order to maintain an ecological balance'. Sustainability is a social goal about the ability of people to co-exist on Earth over a long time or indeed indefinitely, i.e. many, many future generations, without depleting our ecosystems and natural capital.¹ There are economic, social and environmental (ecological) aspects to sustainability, but ecological sustainability is the bedrock upon which the other aspects depend. Human economy and society depends on the natural systems of soil, water, biodiversity, nutrient and carbon cycles, and so on, that make up our world. The impression of Australia as a huge landmass that is capable of supporting an equally huge population, is misinformed. Australia's population is distributed around the well-watered coastal fringe. Some 87% of Australians live within 50 km of the coast, on about 10% of the continental landmass.

There are no technologies on the horizon that could convert Australia's predominantly arid and semi-arid interior into areas suitable for large-scale human habitation. Visions of water megaprojects that might be able to do this, such as the Bradfield scheme, have been comprehensively debunked by CSIRO and others.²

Australia's population policy must therefore learn to live in balance with Australia's fragile ecosystems as they are. Management of our population numbers is an extremely cost-effective way to manage our environmental impacts and live within the limits which nature provides. Of

¹ This wording is adapted from Wikipedia <https://en.wikipedia.org/wiki/Sustainability>

² CSIRO (2021). An assessment of contemporary variations of the Bradfield Scheme - summary report. Canberra. csiro:EP2021-3535. <https://doi.org/10.25919/6180-3k09>; ABC Fact Check: Bradfield Scheme. <https://www.abc.net.au/news/2019-04-30/fact-check-bradfield-scheme/11057224>

course this must be combined with other social, economic and environmental policy measures. SPA is not saying population is on the only factor that must be managed, but we are arguing that ending population growth is an indispensable prerequisite for sustainable prosperity.

The question of a sustainable level of population for Australia has been studied over the decades. There is no single numeric estimate regarded as 'optimal'. Rather, it involves a complex judgement about environmental, economic and social factors. It must include ethical and political judgements about the desired future, scientific knowledge about ecological constraints, threats and risks, and the application of prudential reasoning such as the precautionary principle.³

Specific estimates of a sustainable level of population for Australia include the Australian Academy of Science, which in 1995 advocated stabilising the population at around 23 million.⁴ A more recent study of Australia's carrying capacity by Dr Murray Lane at Queensland University of Technology estimated that it ranges between 9 million and 40 million people, depending on what time scale was assumed. If long term sustainability were the aim, then the study found carrying capacity would need to be towards the lower end (9 million).⁵

Over the past 25 years, the government's official *State of the Environment* (SOE) reports have documented continuing deterioration in Australia's environment, and the causal role of population growth in that outcome. This is reaffirmed in this statement from the latest SOE 2021 report:

Human activity and population growth are major drivers of many pressures on biodiversity. Impacts are associated with urban expansion, tourism, industrial expansion, pollution, fishing, hunting and development of infrastructure. *The impacts from population growth are extensive and increasing in many areas.*⁶ (emphasis added)

As this environmental deterioration continues, it brings increasing uncertainties and risks for Australia's food and water, namely:

Water scarcity: Australia's population has already exceeded, in the early 2000s, the number that can be supported solely by rain-fed water supplies. We are increasingly turning to desalination and (most likely) recycled water. These high-tech solutions will entail higher costs and risks, and also face the challenge of gaining public acceptance. Human-induced climate change will make southern Australia drier and hotter. In addition, recent paleoclimate research into Australia's climate over the past 2000 years suggests Australia has been even more prone to mega-droughts than previously assumed – which means this extra historic risk may amplify the

³ An important and influential statement of the precautionary principle is expressed in principle 15 of the Rio Declaration on Environment and Development of 1992. It states "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

⁴ Australian Academy of Science (1995). Joint statement of the Population 2040 Working Party. In *Population 2040: Australia's choice. Proceedings of the symposium of the 1994 annual general meeting of the Australian Academy of Science*. Canberra.

⁵ Lane, M. (2017). Exploring short-term and long-term time frames in Australian population carrying capacity assessment. *Population and Environment*, 38(3), 309-324.

⁶ <https://soe.dcceew.gov.au/biodiversity/pressures/population>

growing impacts of human-induced climate drivers that are already expected.⁷ In short, our water options are becoming increasingly constrained, complex and costly.

Food security: Most Australians would not believe we could become food-insecure, but this is a real threat if our population continues on the path currently projected by the government. The Australian grain harvest is enough for around 60 million people in an average year. Despite being a fairly small contributor to global grain production, Australia contributes significantly to globally traded grain, on which an increasing number of countries depend. The IPCC Sixth Assessment Report anticipates considerable declines in farm profitability across much of Australia. This means that production might be reduced more than yields, since farmers will not plant crops where they are not profitable in most years. If Australia's agricultural output is reduced by climate change, as scientists anticipate, this is likely to contribute to increases in global food prices, threatening food security for the urban poor in many countries. If Australia continues with the population growth trajectory set by Treasury (and seemingly accepted by the Albanese government), then the increasing domestic demand is likely to reduce our grain exports more rapidly than climate change. In a bad drought year, Australia produces only enough grain for 30 million people. Such years are usually associated with El Niño events, when other major grain exporters also have lower-than-average yields. At the current immigration settings, we could exceed 30 million Australian residents within a decade, rendering Australia food-insecure in the years when global prices are highest. As climate change progresses, and if population growth continues, Australia could become chronically food insecure.⁸

The challenge for public policy is how to prudently manage these risks which threaten to reduce standards of living and quality of life, and increase inequality. They also threaten to extinguish much of the bounteous biodiversity of our natural world, in a 'sixth mass extinction' event. These risks are no longer merely in the distant future, they are already with us. The next 50 years promises to see these risks escalating, due not only to climate change but also to many other resource, environmental and geopolitical challenges.

It is in the context of this outlook, of ongoing and potentially very serious environmental deterioration, that the question of Australia's population *sustainability* and *resilience* (i.e. ability to withstand shocks to the system) needs to be considered.

Based on the evidence cited earlier, SPA believes Australia's population may already exceed a sustainable long-term level. We advocate for stabilisation below 30 million people because this is readily achievable and would minimise the further escalation of risks. However, a fully precautionary approach, reducing future risks still further, would then allow the population to

⁷ For relevant paleoclimate research, see for example: Vance, T.R., Kiem, A.S., Jong, L.M. et al. (2022). Pacific decadal variability over the last 2000 years and implications for climatic risk. *Commun Earth Environ* 3, 33. <https://doi.org/10.1038/s43247-022-00359-z>;

Barr, C., Tibby, J., Gell, P., Tyler, J., Zawadzki, A., & Jacobsen, G. E. (2014). Climate variability in south-eastern Australia over the last 1500 years inferred from the high-resolution diatom records of two crater lakes. *Quaternary science reviews*, 95, 115-131;

O'Donnell, A. J., McCaw, W. L., Cook, E. R., & Grierson, P. F. (2021). Megadroughts and pluvials in southwest Australia: 1350–2017 CE. *Climate Dynamics*, 57(7), 1817-1831. <https://doi.org/10.1007/s00382-021-05782-0>;

Goswami, P., Peterson, T. J., Mondal, A., & Rüdiger, C. (2022). Non-stationary influences of large-scale climate drivers on low flow extremes in southeast Australia. *Water resources research*, 58(7), e2021WR031508.

⁸ For supporting references, see Lowe, I., O'Sullivan, J. and Cook, P. (2022). *Population and climate change*. Discussion Paper. Sustainable Population Australia. www.population.org.au/discussionpapers/climate, p. 30.

decline gradually, at least until *State of the Environment* reports show predominantly improving trends in environmental health. This approach does not exclude the possibility that future technology improvements could increase Australia's carrying capacity, but it asks that we prove we can do it before committing us to it. It seems foolhardy to us to continue deliberately driving population growth in the hope of some future technologies overcoming resource constraints, when we are failing to contain the environmental impacts of our current population.

Previous official studies, from Barry Jones' House Standing Committee report on *Australia's population 'carrying capacity': one nation - two ecologies* in 1994, to the Productivity Commission's *Migrant intake into Australia* in 2016, have made a compelling case for a holistic approach to population and immigration policy, which would explicitly include policy and research mechanisms to assess all of the environmental, economic and social factors, and engage in ongoing genuine community consultation about the desired population future for Australia. Governments have consistently resisted such calls, opting instead for a short-term ad hoc approach to immigration policy without community involvement.

This is why SPA feels that the Joint Standing Committee has an important opportunity to grasp the nettle and make the vital connection between sustainability, population growth and immigration levels. *It is surely fundamental for any nation building that it creates a sustainable and resilient nation.*

As we have argued in detail in our submission and again in testimony, there are many spin-off benefits of lower population growth, for society and the economy. And as we have repeatedly said, this is about the *scale* of the migration program, not about stopping migration. Immigration quotas should not be determined by ad hoc responses to the loudest and most powerful pressure groups; they should be determined by objective consideration of Australia's long-term interests through proper assessment and consultation processes.

In conclusion, SPA would like to refer to some comments made by CSIRO scientist, the late Dr Doug Cocks. Dr Cocks assisted with research for the Barry Jones inquiry and later published a book entitled *People policy: Australia's population choices* (1996), which is probably one of the most balanced assessments written on the topic.

In the concluding section of that book, Dr Cocks lists some of the topics that the population debate is **not** about. Two of these are germane to issues discussed during our appearance at the hearing:

The debate is not about past migration. The fact that post-war immigration has been generally judged a success ... is only marginally relevant to whether substantial future migration is in the country's best interests. Economic, social and environmental parameters have changed dramatically in the interim.

The debate is not about individual migrants, all of whom are to be respected and valued for their contributions to Australian society.⁹

What the debate **is** about, Dr Cocks concludes, is 'whether we want or do not want, need or do not need, a much larger population; whether we have any choice; whether recent population

⁹ Cocks, K. D. (1996). *People policy: Australia's population choices*. UNSW Press, p. 313.

growth has jeopardised Australians' quality of life; whether there is any evidence that further population growth would reverse or exacerbate this.¹⁰

On the latter point, the accumulating evidence firmly supports the conclusion that population growth is progressively damaging quality of life and quality of the environment. As we face the future, the environmental conditions are threatening to become considerably worse. In that context, further population growth is only going to make the task of managing this deterioration even harder if not impossible. To paraphrase Dr Cocks' conclusion, lowering migration (and hence population growth) cannot, by itself, totally ameliorate our current problems, but it can reduce the rate at which they become exacerbated and new problems arise.

Dr Peter Cook and Dr Jane O'Sullivan
on behalf of Sustainable Population Australia

¹⁰ *Ibid.*, p. 312-313.