The Good Ancestors Project

contact@goodancestors.org.au
ABN: 94 660 287 963

Submission to CSIRO on Transforming Australian Food Systems – Discussion Paper

The Good Ancestors Project is an Australian not-for-profit organisation dedicated to reducing existential risk and improving the long-term future of humanity. We write to express our strong support for CSIRO's work on Australia's food system and the development of an Australian Food Systems Roadmap.

The food system is hugely important to any country's success. It is an important factor for Australia's economy, security, health, environment, culture and resilience. And the food system cuts across many policy areas, including agriculture, fisheries, rural infrastructure, indigenous affairs, water, environment, drought, emergency management, animal welfare, waste, health, poverty, education, immigration, defence, industry, transport and cost of living.

Therefore, we strongly support the systems-based approach that CSIRO is proposing. Specifically, we support the vision for Australia's food system expressed in the Discussion Paper and the opportunities across each of the five focus areas. We hope that this work triggers a more strategic approach to food policy in Australia.

Our primary critique of the Discussion Paper is that the five focus areas do not fully capture all the important aspects of the food system. Without a holistic approach, we fear that certain objectives of our food system will be neglected. It will also mean that the different aspects and priorities of future food policy will continue to compete with or undercut each other.

The five focus areas of the Discussion Paper is a significant step up from current thinking around our food system. Howiever, we make a further five recommendations to expand the focus in critical ways.

Recommendation 1: Add a new focus area called "Improve respect for people, animals and plants"

The food system is a bridge between cultures and between species. Australia's multicultural society has meant that Australia has an amazing food culture. Not only should this be fostered, it should serve as an opportunity to connect Australians to each other. The Discussion Paper importantly recognises the value Indigenous knowledge systems and practices. This new focus area would provide greater foundation for these activities

Just as importantly, animal welfare would be considered as a critical element of this focus area. Such a priority would give more attention to this voiceless constituent on which our food system relies. Increasingly, Australians are turning to vegetarianism, veganism or the simple reduction in the consumption of animal products for ethical, economic and environmental reasons. This

trend needs deliberate support. Such a focus area could look to increasing requirements to factory farms, reducing barriers for free-range and other humane practices, encouraging nose-to-tail diets, and supporting alternative protein industries. Respect for animals is not only suitable on ethical grounds, but also increases animal health, leading to increased human health. It reduces the risk of zoonotic diseases and has benefits for the environment and climate.

Recommendation 2: Broaden focus area 4 to be more all-encompassing of 'resilience' and 'security'

Focus area 4 is currently built around "Improving environmental and economic resilience". However, resilience and security is a broader, and absolutely essential, component of our food system. The current framing limits the importance of resilience of the food system as a whole to shocks.

This focus area needs to be broader than simply environmental and economic resilience. Resilience and security speaks to threats, hazards and shocks that could severely harm our food system. Indeed, the section itself begins by saying that "Australia's agrifood industry has recently been impacted by several disruptive events that have had significant ramifications for all participants across the food value chain."

This focus area should be renamed to "Improving food system safety, security and resilience". This ensures that the focus area captures and emphasises currently missing elements, such as preparedness for major threats arising from global events, risks and challenges to our biosecurity, and safety of our food from chemicals, pollutants or other hazards.

This focus area should therefore include additional suggested recommendations, such as:

- Greater planning and preparedness for major shocks
- Increase efforts to local food production and community gardens
- Increase domestic production of energy, fertilisers, seeds and other inputs
- Prepare for global security challenges arising for global food system

Recommendation 3: Incorporate Diversity and Scalability of food production into food system resilience considerations and facilitate research to increase capacity in these areas.

Building on recommendation 2, focus area 4 neglects two important considerations for the resilience of food systems, *Diversity* and *Scalability*. Such considerations should be worked into definitions of resilience and actively explored as research areas to increase food system resilience to major disruptions. *Diversity* and *Scalability* are essential to ensure Australia's food systems continue to supply Australians in the face of next generation disasters.

Diversity: Food production methods need to be diverse in order to hedge against highly uncertain futures.

The majority of food production methods are based on traditional agriculture, requiring arable land, freshwater and sunlight to produce food. Resilient foods[1] are food production methods which are less reliant on these three major inputs, examples include Single Cell Protein (SCP) from hydrogen or methane digesting microbes, carbohydrates produced from cellulosic biomass and macroalgae (seaweed). Resilient foods can efficiently produce food from non-traditional inputs. Incorporation of resilient foods into Australia's food system, even at small scale, would increase diversity of production beyond traditional agriculture, acting as a hedge against uncertain futures.

Scalability: For larger stressors the rate at which the food system can adapt will be important to maintaining output.

Alongside having a diverse range of production methods, knowing how to scale food production methods rapidly would increase resilience, by allowing food production methods less impacted by a disruption to quickly pick up deficits in output. Presently little research has been undertaken into determining how to scale food production methods quickly.

Increasing capacity to scale food production could be achieved through a combination of research and piloting. Research could aim to assess existing limitations in processes and inputs required for food production methods, along with small scale pilots of key food production methods to see how quickly output could be increased. Examples of research and pilots might be getting farmers to quickly learn to grow a new crop, developing and trialling fast construction methods for industrial food production methods such as SCP, or rapidly increasing the area of edible macroalgae being grown.

The CSIRO as the national research body is well positioned to lead work in this space in partnership with relevant academic, NGO and Industry partners.

Recommendation 4: Add a new focus area dedicated to research, development, technology and innovation

Aspects of research, development, technology and innovation are mentioned throughout the Discussion Paper. However, these aspects deserve specific attention because Australia is not adequately prepared for the fact that the global food system will undergo transformative and disruptive change in the coming decades. A range of global trends – climate change, biodiversity loss, water scarcity, energy transition, changing consumer preferences, urbanisation and the development of new technologies, including in breeding, alternative proteins and aquaculture – will fundamentally reshape the national and global food system.

Australia needs to be more ambitious in its food system. It could be a global leader in food system innovation. Australia's investment in research and development remains among the lowest of any OECD country. And deficiencies in learning opportunities have resulted in skills and attitudes poorly suited to complex emerging food production, processing and marketing

[1] Resilient food solutions - https://allfed.info/resilient-foods/resilient-food-solutions

challenges. This has led to a fragmented system which tends to concentrate on improving efficiency and food quantity, rather than important areas from which all farmers and producers may benefit, such as soil research, novel foods, climate-proofing and regenerative agriculture. Despite its natural comparative advantages in food production, the Australian food system is unable to fully exploit shifting trends in the global food system, nor sufficiently prepare itself for impending challenges.

This dedicated focus area would provide an impetus to governments, scientific and academic organisations, the agriculture industry and entrepreneurs to consider how Australia can future proof its food system. In fact, this focus area could be called "Future proof the food system through research, development, technology and innovation"

Recommendation 5: The Food Systems Roadmap should include research and analysis of food governance approaches

At the strategic level, food policy and the governance of food policy is severely lacking in Australia. There is little strategic direction or ambition for Australia's food system. Existing policy and programs are splintered across the Government. At the federal level, food policy sits across at least 14 portfolios and 33 government departments and agencies. And each state and territory has its own legislation and policy impacting the food system. Without proper governance of our food system, the opportunities and recommendations that CSIRO identifies across the focus areas will almost certainly be missed or poorly executed.

Suggesting legislation or policy might be out of scope of this Food System Roadmap. However, CSIRO could still provide advice on best practices for food governance. As part of this work, CSIRO could conduct research into how other countries have approached a strategic and systemic approach to food governance, including a National Food Strategy or Plan. For example, countries such as the UK and Canada have implemented such strategies, from which we could learn best practices.

Such research could provide advice on establishing governance arrangements and structures, prioritising between competing objectives of the food system and supporting engagement and communication across government, industry and society.

With these proposed changes, the focus areas will cover all important priorities for a food system: nutrition, waste, sustainability, resilience, respect, growth, innovation and governance. All stakeholders across the food system in Australia would be able to engage with at least one of these seven focus areas. They would be better able to see their role in the broader system and how their role impacts the other priorities. We suggest that the Food System Roadmap be delineated by these seven focus areas.

We want to reaffirm our strong support for this work. It is an important first step to creating a resilient, nutritious, innovative and sustainable food system that supports growth and respect for animals. Ultimately, we hope it translates into a National Food Strategy that would set

Australian food policy up for the future. We are keen to continue working with CSIRO in the development of the Food System Roadmap.