[redacted]

20 September, 2024

To Whom It May Concern,

Thank you for the opportunity to comment on the Australian Government Drought Plan.

I was born, raised and reside in central Australia. I worked as a station hand during the millennial drought and experienced first-hand the horrific consequences of failing to properly prepare and manage drought.

There should be mandatory destocking in drought. Animal protection authorities should be given exception funding and powers during this period. There should be mandatory education and reporting for everyone that goes to work in agriculture regarding animal welfare including duty of care and cruelty.

In many places the value of the agriculture industry to rural communities identities and economies is exaggerated by both industry, governments and media.

In many cases, such as central Australia, the agricultural industries' pivotal role in the colonial wars, massacres, and ongoing colonial land occupation is well understood. There has been no truth telling about this.

Inappropriate food production / agriculture should not be propped up. Our water ways are degraded by stock, our ecosystem is collapsing under buffel grass invasion – just one of the highly invasive, high fuel load pasture grasses introduced to 'drought proof' central Australia, our precious groundwater by the expansion of irrigation.

In many cases the costs of the impact of the agricultural industry on the economic is devastating – the negative impacts on tourism, art, culture and health are significant and largely unaccounted for.

I am a nurse with a background in public health – I submit to you the following short case study on how the pastoral industry in central Australia which illustrates why in many places the agricultural industry should be allowed to die a natural death and not be propped up by subsidies. Public investment should be directed towards moving away from food production based on agriculture to protection and promotion of natural food sources and a rural Australian identity that is not mired in colonial fantasy.

# CASE STUDY – THE PASTORAL INDUSTRY, DROUGH PREPAREDNESS AND THE BUFFEL GRASS DISASTER IN CENTRAL AUSTRALIA

Buffel grass drastically reduces availability, and access to, all ecosystem food services besides beef.

## BEEF

## IMPACT OF BUFFEL GRASS INVASION

Buffel grass was, and still is, planted and spread to support this single 'food service' industry.

### PASTURE

#### PROS

Buffel grass is well regarded by some pastoralists because it grows rapidly and can withstand heavy grazing[i]. Its extensive root system and dense coverage can mitigate some forms of soil erosion that results from industrial activity, at least in the short term.[ii]

#### CONS

However, the nutritive value of buffel grass is lower than other introduced pasture grasses and native grasses [iii]. It is only moderately palatable and can cause oxylate poisoning in cows and horses. Buffel grass is susceptible to pests and diseases, most notably pasture dieback[iv], has been noted to die off in extreme hot, dry periods and over time gets 'runs down'[v].

## CONSEQUENCES FOR HEALTH

### NUTRITION

While grass fed beef is a source of protein and provides other nutrients such as iodine, zinc, vitamins and essential fatty acids[vi], diets high in beef contribute substantially to burden of chronic disease[vii]. The weekly consumption of red meat by Australians is estimated at 24% higher on average than maximum suggested by the Australian Dietary Guidelines[viii]

### FOOD SECURITY

Reports such as the *EAT-Lancet Commission for Healthy and Sustainable Food Systems*[ix] and the *Intergovernmental Panel on Climate Change (IPCC) on Climate Change and Land*[x] which accord with UN Sustainable Development Goals (SDGs) and the Paris Agreement, have called for the following as key action towards achieving healthy and sustainable food systems:

- A greater than 50% reduction in meat production and consumption

- A 100% increase in consumption of fruits, vegetables, nuts and legumes
- Access to local, diverse food sources

Without these actions much of the population will increasingly suffer from malnutrition and preventable disease[xi].

Industrial food systems, including beef production:

- are leading contributors to the increasing health and environmental burdens experienced by human populations worldwide[xii,xiii].
- threaten climate stability and ecosystem resilience and constitutes the single largest driver of environmental degradation and transgression of planetary boundaries[xiv]

## NATIVE PLANTS AND ANIMALS

### IMPACT OF BUFFEL GRASS INVASION

Central Australia's natural ecosystems support a large diversity of plants and animals that service a diverse and healthy diet[xv.] Buffel grass drastically reduces, and in some situations eliminates, availability and access to these foods[xvi]. Buffel grass destroys local food sources through a multitude of processes including:

- Displacement of native grasses (grain) and small plants (fruits and seeds).[xvii]
- Reducing soil nitrogen and exhausting the mineral pool, preventing growth of plants through allelopathic suppression. [xviii xix]
- Causing very hot, widespread, frequent fires which:
    - damage and destroy ground, mid and upper storey edible plants, seeds and the soils[xx]
    - kills edible animals through incineration, starvation, dehydration and exposure[xxi]
    - Buffel grass also negatively impacts the use of fire by humans to promote, distribute and protect edible plant and animal communities
- Changing surface water flows and severely damaging aquatic ecosystems and fringing (riparian) vegetation.[xxii]
- Destroying habitat, as such posing a catastrophic threat to native wildlife, including biotic pollinators (for more on pollinators see section 3.7 of this report).[xxiii]

A study on key environmental and socio-cultural threats in central Australia[xxiv] found buffel grass has:

- massive socio-economic impacts stemming from permanent and irreversible disappearance of bush food for at least a decade

- major socio-economic impacts stemming from local disappearance of hunting from all or part of the affected area (though change likely reversible within a decade if buffel grass is controlled)

These finding s are supported by other reports[xxv], statements[xxvi and testimoniesxxvii,xxviii, xxix].

## CONSEQUENCES FOR HEALTH

### NUTRITION

Central Australia's natural ecosystems include extremely diverse and healthy food sources. Many plants and meats are extremely rich in vitamins, minerals and antioxidants[xxx].

Traditional diets appears to have been low in energy density but high in nutrient density – high in protein, low in sugars, high in complex carbohydrate, and high in micronutrients[xxxi].

A diverse, healthy diet is essential for the best possible growth and development of infants and children, it contributes significantly to quality of life and well-being, resistance to infection and protection against chronic diseases and premature death and disability[xxxii].

Senior Eastern Arrernte Woman Veronica Perrurle Dobson speaks of the health impacts of these changes in diet:

> *"Now there's lots of other, new illnesses that make people from this country sick. The food that is eaten is fatty…Nowadays there are lots of sweet things that our elders never ate or drank. Our elders never got this sicknesses – blood pressure, or no kidney problems, no lung or liver problems, or overweight problems. They didn't know about these, didn't know about these sicknesses. The younger generation is always with these types of sicknesses."*[xxxiii]

### FOOD SECURITY

Reduction in food supply is by far the most frequently reported impact (more than 66%) of invasive species globally[xxxiv]

### FOOD SECURITY FOR ABORIGINAL PEOPLES IN CENTRAL AUSTRALIA

The UN Human Rights Office states:

> *"Indigenous peoples are among the most vulnerable to hunger and malnutrition. Hunger and malnutrition among them are largely the result of a long history of social, political and economic exclusion, including centuries of expropriation and despoliation of their lands."*[xxxv]

In remote communities commercially, available food intake is still sometimes supplemented by procurement of traditional foods.

A study on traditional food availability and consumption in the Northern Territory found that traditional foods were reported to be available year-round in all 20 communities. Most participants (89%) reported consuming a variety of traditional foods at least fortnightly and 71% at least weekly. Seventy-six per cent reported being food insecure, with 40% obtaining traditional food during these times[xxxvi].

The following information is presented in the *Aboriginal Medical Services Alliance Northern Territory (AMSANT) Northern Territory Food Summit Food Security Information Sheet*[xxxvii]:

**NT Food security Information:**

Food security refers to people's food **access**, meaning financial and other resources people need to obtain appropriate food for a nutritious diet; food **availability**, meaning sufficient quantities of nutritious food consistently available; **and use**, meaning the appropriate use of food, based on knowledge of basic nutrition and care (2).

- **Food insecurity in the NT**

Food insecurity affects Aboriginal people as much as 12 times more than non-Aboriginal people (5). Rates of food insecurity are worse in remote areas.

Thirty-one percent of Aboriginal people living in remote areas are at high risk of food insecurity, regularly running out of food (1). In the NT 34% of Aboriginal people live in a household that had run out of food in the previous 12 months compared to 4% in the non-Aboriginal population(3).

- **Access, Availability & Use**

Aboriginal people in the NT are impacted heavily by limited food access and affordability, restricted availability and often restrictions on means to prepare and obtain healthy, nutritious meals. Aboriginal people in the NT reported a less nutritious diet compared to non-indigenous people, 97% reporting inadequate vegetable intake and 49% inadequate fruit intake (3).

Food is considered affordable when no more than 30 % of household income is required for its purchase (4). In a remote NT community an average family receiving government allowances would use 34-80% of household income on food alone (45.5% on healthy basket of groceries) (9).

In the last 10 years price difference between remote stores and town supermarkets have increased from 36% ($710 vs $522) to 60% ($854 vs $535) (5). During this same time Newstart allowances have increased by less than 15 % (5, 11).

In Aboriginal communities as little as 6% of houses have all of the functioning health hardware needed to store, prepare and cook food, such as cupboards, bench space, refrigeration and a functioning stove and sink (9).

- **Health impacts**

Food insecurity is explicitly linked to health and health outcomes, leading to higher rate of gestational diabetes, low birth weight, malnutrition in infants and children, anaemia in children and young women and higher rates of chronic disease (2).

Aboriginal women in the NT are 10 time more likely to have type 2 diabetes in pregnancy and twice as likely to have low birth weight babies (14). Children health impacts are also higher 15% of aboriginal children under 5yo in the NT suffer from chronic malnutrition, compared to 2% nationally. 15% are anaemic, which can be strongly link to poor diet and a lack of nutritious food, however large improvements have been seen in this area in the last 5 years (12). Rates of diabetes in aboriginal people in the NT are 4.7 times higher than non-aboriginal people. They are also 4.4 times more likely to have a preventable hospital admission for chronic diseases (13)

These health issues linked to food insecurity have lifelong effects including poor education, employment as well as impacts of overall health. The life expectancy gap between indigenous and non-indigenous people is still around 8 years (8).

## MENTAL HEALTH

The recent *Australian Institute of Health and Welfare (AIHW) 'Food Security and Indigenous Mental Health'* report looks at the extent of food insecurity affecting Aboriginal peoples and its effect on mental health and wellbeing. The reviewed evidence shows that "colonisation has led to a loss of traditional food sources and dependence on highly processed European food, which contributes to a higher predisposition to chronic illness"[xxxviii]. The report found evidence that food insecurity increases psychological distress and compromises physiological wellbeing:

- A lack of quality and sufficient food causes stress, with the need to obtain food through means that compromise cultural safety and induce feelings of shame.
- There is evidence linking food insecurity with depression.

- International evidence links food insecurity to suicidal behaviour and suggests it is the largest contributor to psychological distress.
- Children in food-insecure households are likely to have emotional or behavioural difficulties and are more likely to miss days of school.
- Food insecurity also indirectly affects physiological wellbeing through poor diet and malnutrition.

## ASSOCIATED CHRONIC DISEASES

Unhealthy eating patterns are:

- the leading preventable risk factor contributing to the burden of death and disease globally, including for Australia[xxxix].
- a leading risk factor contributing to cardiovascular disease, diabetes, some cancers, dental disease and many other conditions[xl].

## CULTURE

Food, food knowledge and culture are closely linked with empowerment, self-determination and healthy eating[xli].

In 2014 the International Congress on Nutrition declared:

> *"Food is the expression of values, cultures, social relations and people's self-determination, and the act of feeding oneself and others embodies our sovereignty, ownership and empowerment. When nourishing oneself and eating with one's family, friends and community, we reaffirm our cultural identities, our ownership over our life course and our human dignity. Nutrition is foundational for personal development and essential for overall well-being"*[xlii].

A systematic review of qualitative literature describing Aboriginal and Torres Strait Islander Peoples' concerns and priorities regarding food and nutrition identified key food and nutrition issues across each level of an ecological framework. One of the main themes to emerge was that traditional food is central to health and wellbeing.

> *"Connection to culture, particularly via traditional foods, was reported to be associated with positive health and wellbeing. Conversely, disconnection from traditional food systems was reported as a barrier to healthy eating and psychosocial wellbeing, as participants reported a sense of loss and imbalance when away from their homelands. Some participants expressed*

*concern that cultural knowledge was not being passed down to younger generations and could be lost. The role of culture in guiding children's food choices was also demonstrated through storytelling to pass down knowledge from Elders to children."*[xliii]

*"Participants associated traditional foods with their identity and culture as well as with healthy eating. "Bush tucker" was highlighted as a way of incorporating healthy foods into the diet, and promoting wellbeing, although access to traditional foods was often limited…Discussion of traditional foods was more common among participants in remote areas; however, concern regarding access to traditional foods was shared in both remote and urban communities."*[xliv]

## CHILDREN

Children are especially vulnerable to a lack of adequate food, as they need safe and nutritious and food to grow mentally and physically. Malnutrition, including during pregnancy, has long-lasting consequences, including mental and physical impairment, chronic illness, and weak immune systems and reproductive health[xlv].

Veronica Perrurle Dobson, a senior Eastern Arrernte Woman, botanist and ecologist asserts:

*"That's why the young children of today are always sick, because they haven't been taught to eat green vegetables like bush banana, bush orange yams and other foods like witchetty, kangaroo, perentie, goanna. That's just some of the bush foods – there's lots more."*

## BURDEN OF DISEASE

The burden of disease related to loss of traditional food sources through buffel grass invasion on people in central Australia has not been measured. It is likely to be significant given:

Aboriginal people are disproportionately impacted by health conditions associated with poor nutrition. It has been estimated that 19% of the National Aboriginal and Torres Strait Islander burden of disease is attributable to poor diet[xlvi]. In 2012-13, compared with the non-Indigenous population, Aboriginal and Torres Strait Islander people were[xlvii]:

- more than three times as likely to have diabetes
- at least 5 times more likely to die of diabetes
- twice as likely to have signs of chronic kidney disease
- twice as likely to have unhealthy blood fat levels
- more likely to have multiple diet-related chronic conditions

- twice as likely to have a heart attack
- 60% more likely to die of heart disease

### OBESITY

In 2017-18 people living in remote and very remote Australia were[xlviii]:

- 11% more likely to be overweight or obese compared with adults living in major cities.
- 40% more likely to die of cardiovascular disease than people living in major cities.
- 30% more likely to be hospitalised for cardiovascular disease.

Obesity rates for Aboriginal and Torres Strait Islander adults and children are significantly higher than comparable rates for non-Indigenous people in almost every age group[xlix].

- Aboriginal and Torres Strait Islander men are 40% more likely to be obese than non-Indigenous men
- Aboriginal and Torres Strait Islander women are 70% more likely to be obese than non-Indigenous women.

## ECONOMIC IMPACTS RELATED TO HEALTH[l]

The economic impact of poor nutrition related to loss of traditional food sources through buffel grass invasion on people in central Australia has not been measured. It is likely to be significant given the estimated costs of poor nutrition to Australia through healthcare expenditure:

- $1.4 billion attributable directly to insufficient vegetable intake 2015-16.[li]
- Unhealthy eating patterns contributed significantly to:
    - $8.6 billion in health care costs and lost productivity from overweight and obesity 2015-16.[lii]
    - $10.4 billion in direct health care costs associated with cardiovascular diseases 2014-15.[liii]
    - $14.6 billion in cost for diabetes 2015-16.[liv]
    - $6.2 billion in financial cost of stroke to government, individuals, employers and the community 2020.[lv]

### IMPACTS ON EMPLOYMENT

The Northern Territory agricultural sector (including pastoralism, horticulture, forestry and fisheries) currently employs less than 2 000 people[lvi]. Though regional employment statistics are not publicly available, beef production on arid and semi-arid land would account for a fraction of this employment.

The Australian native foods and botanicals sector is rapidly growing. A 2019–20 market analysis of a group of 13 native plant species, identified as being priority horticultural species by leading industry body Australian Native Foods and Botanicals, estimated their retail value at $81.5 million per year[lvii].

## POLICY GUIDANCE

Policies related to nutrition that support a health service response to buffel grass invasion include those related to beef consumption, nutrition and obesity and associated diseases such as cardiovascular disease.

### INTERNATIONAL

| DOCUMENT | GUIDANCE ON HEALTH SERVICE RESPONSE TO BUFFEL GRASS INVASION |
|---|---|
| UN Right to Adequate Food | The right to adequate food and right to be free from hunger is a human right recognized under international law that provides entitlements to individuals to access to adequate food and to the resources that are necessary for the sustainable enjoyment of food security[lviii].<br><br>Human rights are interdependent, indivisible and interrelated. This means that violating the right to food may impair the enjoyment of other human rights, such as the right to health, education or life, and vice versa. Examples of these correlations can be found at https://www.ohchr.org/sites/default/files/Documents/Publications/FactSheet34en.pdf<br><br>Indigenous peoples<br><br>"The realization of indigenous peoples' right to food depends crucially on their access to and control over the natural resources on their ancestral lands, as they often feed themselves by cultivating these lands or by collecting food, fishing, hunting or raising animals on them." [lix] |
| GAR Special Report 2023: Mapping resilience for the Sustainable Development Goals<br><br>[lx] | Resilience deficit 2. Increasing drought risk and food insecurity |
| International Covenant on Economic, Social and Cultural Rights[lxi] | Article 11<br><br>(a) To improve methods of production, conservation and distribution of food by making full use of technical and scientific knowledge, by disseminating knowledge of the |

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|---|---|
| | principles of nutrition and by developing or reforming agrarian systems in such a way as to achieve the most efficient development and utilization of natural resources |
| Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security[lxii] | States are encouraged to use the Right to Food Guidelines for drafting their national strategies and programmes to fight hunger and malnutrition<br><br>Guideline 8<br><br>States should take measures to "prevent the erosion of and ensure the conservation and sustainable use of genetic resources for food and agriculture", including for the protection of traditional knowledge and equitable participation in sharing benefits through the participation of local and indigenous communities in relevant decision-making". |
| UN Declaration on the Rights of Indigenous Peoples[lxiii] | Article 31<br><br>Recognizes indigenous peoples' right to maintain, control, protect and develop the manifestations of their sciences, technologies and cultures, including genetic resources, seeds, and knowledge of the properties of fauna and flora. |
| The Convention on the Rights of the Child[lxiv] | Protects the child's right to food in the context of the right to life, survival and development, to health, to nutrition and to an adequate standard of living. |
| UN Convention to Combat Desertification (1994)[lxv]<br><br>Ratified by Australia 2000 | Covers a number of themes related to buffel grass invasion including desertification, land degradation, sustainable development, sustainable land management, drought mitigation and adaption to climate change.<br><br>The parties to the Convention recognise that desertification is irelated to important social problems such as poverty, poor health and nutrition, lack of food security. |

## NATIONAL

Food security has been identified as an objective in closing the gap between Aboriginal and Torres Strait Islander people and non-Indigenous Australians[lxvi].

| DOCUMENT | GUIDANCE ON HEALTH SERVICE RESPONSE TO BUFFEL GRASS INVASION |
|---|---|
| National Aboriginal and Torres Strait Islander Health Plan 2021-2031[lxvii] | Priority 7: Healthy environments, sustainability and preparedness<br><br>Food security<br><br>"Embedding cultural knowledge and practice can help address food insecurity and related health challenges for Aboriginal and Torres Strait Islander people For example, collecting and consuming traditional bush foods is linked to improved diet, exercise and physical, spiritual, social and emotional wellbeing[68] The annual accessibility and availability of traditional foods enhances this<br><br>Objective 7.3 |

| | |
|---|---|
| | Take action to improve food security<br><br>Solutions to food security (including through traditional food sources) must both enable self-determination in diet and nutrition-related decision making, and address the factors that contribute to low intake of nutritious foods<br>This includes consideration of issues related to supply, access, affordability, demand and barriers to consumption. Action must support stores to act as an important community service that is pivotal to community members' health and wellbeing |
| Australian Dietary Guidelines[lxviii] | Includes specific recommendations for Aboriginal and Torres Strait Islander people:<br>● to enjoy traditional foods whenever possible<br>● when choosing store foods, to choose those most like traditional bush foods, such as fresh plant foods, wholegrain (cereal) foods, seafood, and lean meats and poultry |
| National Preventive Health Strategy 2021–2030[lxix] | Improving access to and consumption of a healthy diet is one of seven priority areas for action. |
| National Obesity Strategy 2022-2032[lxx] | Ambition 1: Creating supportive, sustainable and healthy environments<br>1.1 Build a healthier more sustainable food system<br>1.2 Make sustainable healthy food more accessible<br><br>Ambition 2: Empowering people to stay healthy<br>2.1 Improve knowledge, skills and confidence<br>2.3 Establish lifelong healthy habits from childhood<br>2.4 Harness young people's passion for sustainability and better health<br>2.5 Support communities to lead their own solutions<br>2.6 Address systemic barriers to health<br><br>"Community consultations clearly identified the need for community leadership, shared decision making and community-driven approaches. These were particularly important for Aboriginal and Torres Strait Islander communities where local community leadership in all aspects of design, development and delivery of actions is critical to achieve change."<br><br>This statement is compelling in light of community directives regarding the impact of buffel grass on availability and access to healthy food. |

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|---|---|
| | Ambition 3: Access to early intervention and care<br><br>Addressing wider determinants of health and sustainability: Strategy 3.1, 3.2, 3.3, 3.4, 3.5 include the need to consider social, cultural, economic, structural and environmental factors, and multi-sector collaboration and partnerships to improve obesity. |

## TERRITORY

| DOCUMENT | GUIDANCE ON HEALTH SERVICE RESPONSE TO BUFFEL GRASS INVASION |
|---|---|
| AMSANT Food Summit Report[lxxi] | Local Food Production<br><br>"The Northern Territory and Australian Governments to provide long term investment in community controlled local food production and critical infrastructure to support greater food production, including the harvesting of traditional foods, in and around Aboriginal communities. This should include;<br><br>ii. Assistance for Aboriginal communities to harvest traditional foods for community consumption and sale to both local and national markets.<br><br>"Growing and harvesting food in and around Aboriginal communities potentially has multiple benefits and cost savings through increased physical activity, improved access and affordability of healthy food, connection and management of land and the benefits to the whole community through social and economic opportunities." |

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Regards,

[redacted]