Arid Lands Environment Centre

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Letter to the Buffel Grass Technical Working Group

Dear members,

Thank you for the time you have invested in participating in the TWG. This is an historic opportunity to address the greatest invasive species threat to the arid lands.

We write to you with two requests:

1. That you consider the following comments on the Buffel Grass Technical Working Group's (TWG's) communiques and minutes
2. That Arid Lands Environment Centre be invited to present a position paper on responding to the buffel grass crisis at the TWG's next meeting.

Comments *(To be updated when Meeting 3 minutes are available)*

1. Directly listen to and engage with Aboriginal peoples' concerns

As reflected in the minutes Aboriginal peoples bear the highest burden of negative impacts from buffel grass invasion.

While some TWG members consistently raise the expressed concerns of Aboriginal peoples, no Traditional Owners appear to have been invited to represent their interests directly, either as a group member or presenter. The minutes do not address the tragic consequences to Aboriginal culture.

We expect the TWG to listen to the voices of Traditional Owners directly. We trust the TWG will at a minimum acknowledge and consider the growing list of first hand statements and testimonies available including (but not limited to):

- 2022 Rene Kulitja Statement on behalf of the custodians of Uluru-Kata Tjuta, Katiti-Petermann and Watarrka;
- 2021 Desert IPA Rangers Statement on Buffel Grass (Umuwa);
- 2020 Pat Perurrle Ansell Dodd's poem 'Buffel grass';
- 2020 Agnes Perurrle Abbott' poem 'Arelhekenhe angkentye'

2. *Engage with environmental advocates*

There are hundreds if not thousands of community members in central Australia that are extremely concerned about buffel grass invasion. ALEC has around 250 members committed to the vision of healthy arid lands for people. The Buffel Action Network is a fast expanding network of community members committed to long-term coordination and. strategic community buffel grass action to care for and restore the arid lands of central Australia. Alice Springs Landcare maintains a number of sites in Mparntwe, the work of volunteers is almost exclusively buffel grass removal.

3. *Consider the full economic picture and possibilities*

No economic data has been described in the minutes. Economic considerations are far wider and more complex than the minutes have captured. Furthermore the strong representation of pastoral industry interests is a prime example of a market failure, where a group who financially benefits from buffel grass invasion, is able to wield more influence than other interested groups who bear the costs.

The probable benefit of buffel grass, at least in the short-term, to the pastoral industry is acknowledged. While the value of buffel grass to the pastoral industry has been highlighted (the economic value of the entire agricultural sector contributed is 2.9% to the Central Australian regional economy, equating to $0.09 billion in a $3.15 billion economy), the following economic considerations do not appear to have considered in a meaningful way:

- The costs to other economic interests, for example the impacts of buffel grass invasion on tourism.
- The equity in who derives benefits and who pays the costs of dealing with the fall out from unmitigated expansion and impacts of buffel grass (externalised costs). To take one example of the costs to other economic interests, the costs of attempting to eradicate buffel grass from the Alice Springs Desert Park, one of Central Australia's most significant tourist attractions, averaged $5,500/ ha/ year[1].
- The opportunity costs associated with buffel grass. For example:
    - Aboriginal land managers in northern Australia are deriving economic benefit and caring for their Country and communities by participating in carbon farming projects that deploy cultural burning practices to reduce carbon emissions released from catastrophic broad-scale fires. Indigenous land managers in Central Australia are interested in pursuing similar opportunities to combine traditional 'right way fire' practice with contemporary techniques to reduce the impact of uncontrolled wildfires. Buffel grass invasion may present a significant impediment to doing so, representing a loss of livelihoods and cultural autonomy.
    - More generally the group should consider how the absence of regulation under the Weeds Act 2001 impacts the opportunities to participate in market based schemes because there can be no certainty that efforts will not be overrun by unmitigated buffel spread.

[1] *https://onlinelibrary.wiley.com/doi/10.1002/ece3.6724*

A contemporary economic analysis must also weigh up the non-monetary impacts. These include damage to soils, damage to culture and health, loss of species and fire-fighting costs.

Access to this economic analysis is necessary to ensure that the level of weed declaration is appropriate (class B) and government investment is proportionate to the size of the issue.

4. ***Stock in Parks***

We commend TWG members that have raised some of the risks of introducing this biological control into parks. Bringing cattle into the last of the precious places represents an escalation of threats to ecosystems, it is not a sensible or acceptable solution.

5. ***Consideration of buffel grass appears to be at odds with the objects of the Pastoral Lands Act***

We are concerned by the frank reporting by the Rangelands branch that buffel grass is generally favourably assessed in the "Rangelands monitoring" report (minutes meeting 1). The minutes state *"Buffel grass is classified as a three P: perennial, palatable and productive. If it is present and green, it indicates valuable pasture grass."*

Part 2 of the Pastoral Lands Management Act lists its objects as follows:

> **4 Objects**
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> The objects of this Act are:
>
> (a) to provide a form of tenure of Crown land that facilitates the sustainable use of land for pastoral purposes and the economic viability of the pastoral industry;
>
> (b) to provide for:
>
> (i) the monitoring of pastoral land so as to detect and assess any change in its condition;
>
> (ii) the prevention or minimisation of degradation of or other damage to the land and its indigenous plant and animal life; and
>
> (iii) the rehabilitation of the land in cases of degradation or other damage;
>
> (c) to recognise the right of Aboriginal persons to follow traditional pursuits on pastoral land;
>
> (d) to provide reasonable access for the public across pastoral land to waters and places of public interest; and
>
> (e) to provide a procedure to establish Aboriginal community living areas on pastoral land.

Buffel impacts on native species and ecosystems. There are also serious doubts about the ongoing viability of buffel grass monocultures as pasture. The compatibility of buffel grass with the objects of

the Pastoral Lands Act (highlighted) needs to be reviewed and hence also how it is assessed in rangelands monitoring.

6. ***Consider the legal obligations to protect threatened species, sacred sites and cultural values.***

The minutes do not substantially consider the existing legal obligations to control buffel grass.

Numerous threatened species advices and recovery plans declared under the Environmental Protection and Biodiversity Conservation Act are in place for species threatened by buffel grass. Sacred sites protected under legislation are also threatened by buffel invasion. We have identified that nineteen or more threatened fauna are currently or potentially impacted by buffel grass in the Northern Territory, South Australian or Commonwealth. This includes species such as the great desert skink, black-footed rock wallaby, dusky hopping mouse, the MacDonnell Ranges cycad (Macrozamia macdonnellii), red cabbage palm (Livistona mariae subsp. mariae), and central Australian rock rat (Zyzomys pedunculatus).

7. ***Health implications of buffel grass***

The current Buffel Grass Weed Risk Assessment does not include known strongly associated risks to human health. These impacts are significant, extremely costly and should be known to the group. Health impacts related to buffel grass invasion include, but are far from limited, to:

Culture

As some members of the TWG have stated, buffel grass poses an extreme risk to culture[2]. Culture is recognised as the foundation of Aboriginal and Torres Strait Islander Health[3]. Negative impacts on culture are associated with a wide range of mental[4] ,physical[5] [6] and community[7] [8] health and wellbeing.

Food

Aboriginal peoples in central Australia already bear an unacceptable burden of disease related to hunger and malnutrition[9]. Buffel grass invasion destroys diverse, local food sources and as such significantly impacts food security.

Buffel grass invasion reduces availability of, and access to, all diverse local food sources in exchange for beef. In accordance with UN Sustainable Development Goals (SDGs) and the Paris Agreement,

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[2] Read, JL, Firn, J, Grice, AC, Murphy, R, Ryan-Colton, E, Schlesinger, CA. Ranking buffel: Comparative risk and mitigation costs of key environmental and socio-cultural threats in central Australia. *Ecol Evol*. 2020; 10: 12745–12763.

[3] National Aboriginal and Torres Strait Islander Health Plan 2013-2023

[4] Dockery AM 2011. Traditional culture and the wellbeing of Indigenous Australians: An analysis of the 2008 NATSISS. Perth: Centre for Labour Market Research.

[5] Thompson S 2009. Aboriginal perspectives on physical activity in remote communities: Meanings and ways forward. draft, Menzies School of Health Research.

[6] https://aiatsis.gov.au/sites/default/files/research_pub/benefits-cfc_0_2.pdf

[7] https://aiatsis.gov.au/sites/default/files/research_pub/benefits-cfc_0_2.pdf

[8] https://aiatsis.gov.au/sites/default/files/research_pub/benefits-cfc_0_2.pdf

[9] http://www.amsant.org.au/wp-content/uploads/2020/05/Food-security-Information-sheet.pdf

reports such as the EAT-Lancet Commission for Healthy and Sustainable Food Systems[10] and the Intergovernmental Panel on Climate Change (IPCC) on Climate Change and Land[11][2] call for the following 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

Air quality

Buffel grass invasion causes air pollution from pollen[12], and smoke from fires. Air pollution is associated with serious and costly conditions including upper and lower respiratory and cardiac disease.

8. Communication needs to be balanced and deal with all cohorts equally

The TWG approach to communication seems to be to 'inform', this is the lowest level on the widely adopted IAP2 (International Association for Public Participation) consultation spectrum [13]. This is concerning as buffel grass deeply affects us all.

While emails to stakeholders are acknowledged, the only proactive attempt to inform the public via radio has been on ABC's Country Hour, a program intentionally focused on agriculture, with a specific sub-culture as its target audience. For all other audiences, information is only passively available via the NTG website or DEPWS social media, which has limited reach and uptake.

Consider the impacts of climate change on the threats associated with buffel grass invasion.

The Climate Council published a paper in March 2023 warning that the recently-ended protracted La Nina event from 2020-2023 has drastically increased grass fuel loads across Australia, and that 'supercharged' climate conditions could make grass fires just as catastrophic as forest fires. The Climate Council report specifically mentions the risks that the greater continuity and higher fuel loads of buffel-fuelled fires pose. In August of this year, catastrophic fires in Hawaii fuelled by buffel grass and other invasive pasture grasses destroyed much of the town of Lahaina, Maui, killing at least 97 people.

Climate change is predicted to favour the continued expansion of buffel, whilst also promoting a more extreme fire regime across buffel-invaded areas[14][15]. Buffel grass responds positively to increased concentrations of atmospheric CO2, increasing its biomass and thus increasing buffel fuel loads[16]. This means hotter, more frequent, more destructive fires. Ongoing alterations to fire regimes

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[10] https://eatforum.org/content/uploads/2019/07/EAT-Lancet_Commission_Summary_Report.pdf

[11] https://www.ipcc.ch/publication/ipcc-expert-meeting-on-climate-change-food-and-agriculture/

[12] **https://www.aihw.gov.au/getmedia/b73768bf-9cd7-4ca8-b391-78a780974e4f/aihw-phe-311.pdf.aspx?inline=true**

[13] *https://cdn.ymaws.com/www.iap2.org/resource/resmgr/pillars/spectrum_8.5x11_print.pdf*

[14] Schlesinger, C, Judd, B, 2019. 'The summer bushfires you didn't hear about, and the invasive species fuelling them. The Conversation.

[15] **Scott JK, 2014.** Australian rangelands and climate change – Cenchrus ciliaris (buffel grass). Ninti One Limited and CSIRO, Alice Springs

[16] Ibid, p 7.

associated with buffel grass invasion represent a loss of carbon storage potential as ecosystems such as mulga, gidgee and Red Gum woodlands are converted into frequently burnt buffel grasslands[17]. Many pastoralists abet this process, lighting fires to 'clean up' woody vegetation and promote buffel grass regrowth[18]; a form of land clearing that diminishes the carbon storage potential of Australian rangelands. While Australian arid and semi-arid ecosystems have evolved with frequent low-intensity fire, buffel-fuelled fires are a considerable departure from this regime, and result in significant and historically uncharacteristic tree mortality[19].

Conclusion

An existential threat demands a decisive and comprehensive response. We support the Threatened Species Commissioners' advice to consider the economic, ecological, social and cultural impacts of not managing buffel grass when making recommendations to the Minister. The threat abatement actions in the Buffel Grass Threat Abatement Advice[20] developed by the (very well resourced) Threatened Species Scientific Committee under the Federal EPBC Act is comprehensive, sensible and well structured. We believe this is a great framework for describing the actions required.

The weed declaration level (minimum class B) and other response measures needs to be commensurate with the epic scale of the problem. It requires leadership and investment from all levels of government. This decisive action is warranted. However, it is important that the actions taken are considered, coordinated and evidence based.

Thank you for your consideration.

Kind regards

Adrian Tomlinson

Chief Executive Officer

[17] Alinytjara Wilurara BUFFEL GRASS OPERATIONAL STRATEGY 2018-2023, p 4.
[18] Before it all goes up in smoke – proactive fire planning for Central Australia. https://industry.nt.gov.au/publications/primary-industry-publications/newsletters/regional-newsletters/rural-review/nt-rural-review-may-2022/before-it-all-goes-up-in-smoke-proactive-fire-planning-for-central-australia?fbclid=IwAR3Almz_AjmbFqfwFvPHuvGxzDPkvXETr_kWKgULlZUbUYR1rdMQ9M3rOvY
[19] Becky K. Kernsa, Claire Tortorellib, Michelle A. Dayc , Ty Nietupskib , Ana M.G. Barrosb , John B. Kima , Meg A. Krawchukb (2020). Invasive grasses: A new perfect storm for forested ecosystems? Forest Ecology and Management 463
[20] https://www.dcceew.gov.au/sites/default/files/env/pages/19e6108c-d6a4-489f-9ac9-9f0754788080/files/threat-abatement-advice-buffel-grass_1.pdf