7 June 2023

Hon. Tanya Plibersek MP

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Buffel grass submission to halt and reverse biodiversity decline

Buffel grass (*Cenchrus ciliaris*) is an invasive alien species currently rated as the greatest threat to arid-zone biodiversity and socio-cultural systems in Australia (Read et al 2020). It has negative impacts on flora and many fauna groups, and initiates a fire-feedback cycle where old growth woodlands are being transformed into mono-typic non-native grasslands. The heightened fire frequency and intensity of buffel-fuelled fires also increases risks to human communities and infrastructure, biodiversity, tourism and business opportunities, carbon sequestration potential and other natural-socio-cultural values of central Australia. Nature Positive initiatives in central Australia are directly threatened by buffel grass and ensuring it is contained needs to be a priority action.

Buffel grass has in the past been referred to as a "conflict" species, where the viewpoints of different stakeholder groups and First Nations people about management options for buffel grass are said to differ. However, these views are largely outdated, with threats of uncontrollable fires common to all stakeholders. The Umuwa and Rene Kulitja statements on buffel grass represent a consensus among Traditional custodians of the Uluru-Kata Tjuta National Park and the Anangu Pitjantjatjara Yunkunytjatjara lands and echo urgent calls for change from communities across multiple other jurisdictions. These include the key protected and municipal areas of the Maralinga Tjarutja Lands, Katiti-Petermann IPA, the Great Victoria Desert, and Watarrka and Tjoritja-West MacDonnell National Park.

The Federal Government has significant standing around the management of established weeds such as buffel grass. Buffel grass is listed as a key threatening process (KTP) under the

general KTP ‘novel biota and their impact on biodiversity’ under the *Environment Protection and Biodiversity Conservation Act* 1999. The Federal Government also developed comprehensive buffel grass Threat Abatement Advice in 2014. Since this advice was developed, there is an even greater understanding of the significant and landscape scale risks buffel grass poses to the environment, culture, public safety, human health and the economy. Further, the focus on established weeds explicitly through the *National Established Weed Priorities Framework*, as well policy commitments in the form of the *Threatened Species Action Plan 2022-2032*, *Nature Positive Plan: better for the environment, better for business* and the global *30 x 30* initiative ensures there is significant opportunity to strategically manage buffel grass.

This proposal highlights innovative solutions and approaches that can be developed immediately, with Federal Government support, in two parallel processes at different scales.

Strategic management to address the fire threat

Firstly, we propose to build capacity and technology for reducing the threat of fire by reducing fuel loads, protecting old growth woody cover (carbon sinks), and reducing the further spread of buffel grass at key demonstration sites and high priority biodiversity and cultural areas. This work has already commenced at local scales by existing ranger teams, community groups and researchers, but needs to be scaled up across jurisdictions where stakeholders have common goals. Experience to date has highlighted the need for:

- Coordination between government and non-government stakeholders to ensure that the management of buffel grass and its fire threat is strategic and effective. This is relevant at national, regional and local scales.
- Dedicated weed management teams, guided by First Nations people and their aspirations for Country, who can align actions directly with their goals and aspirations. Actions are likely to include buffel grass mapping, new trials, site preparation, fire work, monitoring and training of contractors. This is opposed to past Indigenous weed management work that has often worked top down.
- Development of a pool of highly skilled and resourced Aboriginal and non-Aboriginal weed control contractors that support the on-ground management teams and can work remotely, in harsh conditions, across multiple areas enabling regular monitoring and follow up.
- Making links with the research and development sector to investigate multiple pathways to a) stop the spread of buffel seed, b) reduce the dry biomass of buffel after it has dried off to prevent wildfires, and c) develop tools and technologies to improve surveillance and control options.
- Establish a local facility in central Australia to test and trial management and restoration techniques and approaches that may include fire and chemical combinations, pulse grazing, reseeding of native plants or development of

bioherbicides using pathogens, which is already underway internationally but would benefit from Australian partners (Masi 2019).
- Work with transport groups, including roads and railways, grader operators, land councils and others to limit and reduce the spread of buffel grass along known major invasion pathways such as road and rail or improve management of buffel grass along roads. For example, changing the road grading technique through much of remote central Australia may have excellent potential to prevent further spread.

Engage, consult and raise awareness

Secondly we propose to engage, consult and provide awareness to multiple stakeholder groups at a local and national level. Such urgent action need not be postponed whilst additional consultation processes are taking place.

An alliance of NGOs has already developed some excellent communication material (e.g. through the Indigenous Desert Alliance and Buffel Free Great Victoria Desert Projects) and there is a history of community engagement (IDA, Arid Lands and Environment Centre, Alinytjara Wilurara Landscape Board) but this needs to be extended to:

- Develop a structured consultation process to hear from all stakeholders and First Nations people about their views on buffel grass and what effective management of this invasive alien species and pastoral species looks like for all groups at a landscape and national level.
- More fully understand the socio-economic costs, benefits, values and drivers of this species, as well as define management jurisdictions where groups have common urgent goals.
- Build on existing work on the risks to the wellbeing of First Nations communities (Socio-Economic Impact Assessment in Read et al 2020) to include human well-being costs and benefits across multiple communities and stakeholders.
- Leverage research bodies and stakeholders with a shared commitment in arresting biodiversity decline to look at landscape-scale control options.

Conclusion

Australia's arid and semi-arid regions are recognised globally as places of ecological and cultural significance. Coordinated and systemic action on buffel grass represents a key pathway to supporting the conservation and restoration of central Australia and halting biodiversity decline.

The opportunity to strategically manage the fire threat and engage, consult and raise awareness will meet the targets of:

- expanding private land conservation, including in ways that increase productivity, promote resilience to climate change and improve outcomes for nature.

- establishing land and water packages that deliver water and environment outcomes and meet the aspirations of First Nations people.
- delivering solutions to environmental challenges, such as controlling feral species and using technology to track the health of our environment.

Critically, the management of buffel grass has significant flow-on impacts and benefits. Buffel grass has been linked to the negative well-being of First Nations people and communities, a concern that needs to be urgently addressed. Supporting on-ground capacity to restore demonstration sites, such that the diversity of flora and fauna are returned, and where elders can take younger generations to pass on ecological and cultural knowledge, promise significant social benefits, with an excellent return on investment.

The focus on biodiversity needs to be front and centre, but managing biodiversity in isolation from culture is not how Country was ever managed. When people are healthy, Country and biodiversity is healthy, and the reverse is true. Observations from Country show that native species in the deserts are resilient, and with this work, they can return and prosper.

Signatories

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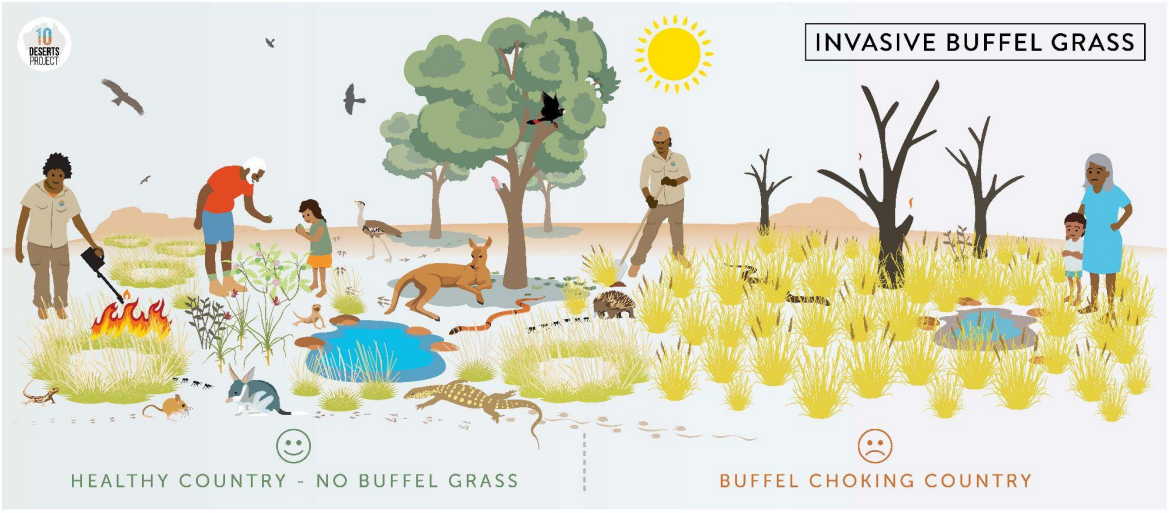
Submitted by Arid Lands Environment Centre on behalf of the above signatories and Alinytjara Wilurara Landscape Board, Indigenous Desert Alliance, Queensland University of Technology, Charles Darwin University and Aṉangu Pitjantjatjara Yankunytjatjara.

Aspirations for Healthy Country compared to buffel grass choking Country



Links to videos

Films describing the impact on buffel grass on Aboriginal culture and the small remote teams in central Australia tackling this complex issue can be found online at:

"The battle against buffel" https://www.youtube.com/watch?v=DWZ3gg1Dpvs

"Desert rangers war on buffel grass" https://youtu.be/6kyTaRSW87U

"We can be buffel free (English)" https://www.youtube.com/watch?v=vqeD3lGD_Ak&t=3s

"We can be buffel free (Pitjantjatjara)" https://www.youtube.com/watch?v=re5YqpCdlco

"Storm on the horizon" http://www.pir.sa.gov.au/biosecurity/weeds_and_pest_animals/weeds_in_sa/weed_id/plant_id_notes/buffel_grass#toc1