

Getting our Act together to improve Indigenous leadership and recognition in biodiversity management

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Summary Increasingly scientists and policy makers are acknowledging the importance of Indigenous participation in effective biodiversity conservation. In Australia, the recognised Indigenous estate is vast, accounting for up to 57% of the continent and comprising some of the highest priority conservation lands, including 46% of the formal National Reserve System. The *Environment Protection and Biodiversity Conservation Act 1999* (the Act) is Commonwealth legislation designed to protect and manage nationally and internationally important species and ecological communities, which entails specific objectives to recognise Indigenous people. However, to date the involvement of Indigenous people in implementation of the Act has been inconsistent and inadequate, particularly in the protection of the Indigenous estate, understanding and supporting Indigenous people's aspirations for Country and culturally significant species, and respecting the traditional management of species and landscapes. In this article, we will explore the key barriers and opportunities for improving Indigenous participation in biodiversity conservation under the Act. We structure our exploration using the three connected themes: (1) meaningful Indigenous engagement and participation, (2) recognition of the Indigenous Estate and (3) strengthening Indigenous-led governance. We find that there is a pressing need and an immediate opportunity to reform and strengthen the Act to protect Indigenous Knowledge, to recognise and report on the role of Indigenous Estate, and to realise the aspirations of Indigenous peoples for improved land and sea management that strengthens people, culture and Country.

Key words: Australia, environmental, Indigenous, legislation, reform, traditional ecological knowledge.

Introduction

The Indigenous estate is fundamental to Australia slowing the rate of biodiversity decline, recovering species and ecosystems, improving national biodiversity outcomes and fulfilling international obligations (Renwick *et al.* 2017; Leiper *et al.* 2018). The Indigenous estate is managed by Traditional Owners who are the custodians of knowledge systems that contain a detailed awareness of the impacts that shape the biodiversity and conditions of the Australian environment (Ens *et al.* 2015; Gadamus *et al.* 2015). The Indigenous conservation estate or Indigenous estate as referred to in this article includes Indigenous Protected Areas (IPAs) and jointly managed areas and other Indigenous owned tenure.

The Indigenous estate accounts for up to 46% of the National Reserve System (NRS) and protects 376.9Mha of habitat for threatened species, equating to 51%

of threatened vertebrate species ranges nationally (Renwick *et al.* 2017; Jacobsen & Howell 2020). It is formed by a patchwork of tenure and comprises of both tangible (land, waters and other resources) and intangible (Traditional Knowledge and practices) assets (Rose, 2013; Pepper, 2018). Encouragingly, there is an understanding that true collaborative approaches between Indigenous people and conservation groups yield significant benefits for biodiversity (Rose, 2013; Garnett *et al.* 2018).

In Australia, the *Environment Protection and Biodiversity Conservation Act 1999* (the Act), is the key legal mechanism to ensure Australia meets its international obligations under the Convention on Biological Diversity (CBD) (Samuel, 2019). The Act includes specific objectives to recognise the role and to promote the inclusion of Indigenous people in protection of the environment, with the intent of

promoting working partnerships with Indigenous people (Table 1). This Commonwealth legislation, by means of objectives 3.1 (a-c), is designed to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places, which are defined as matters of national environmental significance (MNES) (Department of Agriculture, Water and the Environment (DAWE) 2020).

To date however, the involvement of Indigenous peoples and their estates in implementing the Act has been inconsistent and inadequate, particularly in the protection of Indigenous heritage and understanding the cultural significance and traditional management of Australia's plants, animals and cultural landscapes (Hawke 2009; Samuel 2019; Fraser *et al.* 2020). Consequently, Indigenous people are hesitant to engage with the Act, with many noting the destruction or damage to the Indigenous estate due to the failings

Table 1. Extracted objectives that are specifically oriented toward recognising the roles and rights of Indigenous people in the Act

Section 3	Objects of the Act
3.1(d)	<i>to promote a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and Indigenous peoples</i>
3.1(f)	<i>to recognise the role of Indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity</i>
3.1(g)	<i>to promote the use of Indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge.</i>
3.2(g)	<i>promotes a partnership approach to environmental protection and biodiversity conservation through (iii) recognising and promoting Indigenous people's role in, and knowledge of, the conservation and ecologically sustainable use of Australia's biodiversity</i>

of the Act, including its ineffective implementation and compliance.

As both the value and the size of the Indigenous estate grows, some Indigenous groups claim that legislations and policy design have not kept up with the aspirations and needs of Indigenous people. Decisions made by the Minister or the Department under the Act are largely based on superficial understanding of Indigenous culture, which ultimately results in unfavourable outcomes for the Indigenous estate (Higgins, 2019; Johnson & Bell, 2019).

In this article, we will explore the key barriers and opportunities to improve Indigenous participation in biodiversity conservation under the current Act. We structure our exploration using the three connected themes that are key foundations for empowerment of Indigenous people (Mundine, 2021): (1) meaningful Indigenous engagement and participation, (2) recognition of the Indigenous estate and (3) strengthening Indigenous-led governance. For each theme we critically evaluate progress and barriers before exploring opportunities to improve empowerment. In the Samuel (2020) review of the Act, 38 recommendations for reform have been put forward to government. We examine the key recommendations, which attempt to overcome the barriers identified in this article by outlining the potential benefits and risks to the Indigenous estate if recommendations are adopted.

Finally, we discuss how the opportunities identified in this article could be pursued to help improve the functioning the Act, including listing, planning, assessments, approvals, compliance and

enforcement. We describe the changes and minimum standards that might reasonably be expected by Indigenous people in reforming and implementing the Act. We believe this summary of best practice principles will become increasingly important as governments move into a new phase of environmental regulation following a reform process.

Barriers and Opportunities to Improve Indigenous Participation, Recognition and Leadership in Biodiversity Conservation

Poor Indigenous engagement and participation

Australian legislation advocates for the meaningful engagement of Indigenous people (Table 1) as required under international obligations (CBD, 2020b). However, the responsibility to facilitate engagement under the Act is largely left to the wider society without clear protocols to create inclusive approaches to biodiversity conservation. Despite relatively clearly stated objectives, there exist no specific regulations under the Act that require and set standards for meaningful inclusion of Indigenous people in the implementation of the Act. In the absence of effective mechanisms, the participation of Indigenous people in biodiversity conservation falls short of empowerment and is often tokenistic (Samuel, 2019).

The diversity of Traditional Owner aspirations compounds a lack of clarity about

what engagement should entail and seek to achieve. With more than 500 Indigenous groups across Australia, each with their own Country, protocols and aspirations, defining and understanding biodiversity priorities that are commonly held is challenging at a national scale. As a consequence, planning and management mechanisms under the Act routinely fail to address Indigenous knowledge or priorities (Hawke 2009; Bach & Kull 2019; Schuster *et al.* 2019; Fraser *et al.* 2020).

Opportunities to improve Indigenous engagement and participation

Mandating Indigenous engagement and partnerships. Mandating Indigenous engagement under the Act, instead of relying on corporate social licence and goodwill arrangements, would see a shift beyond largely tokenistic involvement of Indigenous people in biodiversity conservation. To increase meaningful participation, the Act needs to consider the wider aspirations of Indigenous people including contemporary land management practice (Archer 2020; Yu 2020).

The Act could be strengthened by placing emphasis on the early and genuine engagement with Indigenous people, primarily by amending the language within the Act's objectives so that they are more explicit and include appropriate support mechanisms (Samuel, 2019). This will safeguard Indigenous consultation on MNES, as legislative requirement rather than an administrative arrangement (Hawke 2009). The principle of Free, Prior and Informed Consent (FPIC), as outlined in the United Nations Declaration on the Rights of Indigenous Peoples, is an obligation for governments to engage impacted communities, therefore, FPIC should be required under the Act, its subordinate regulations and any future standards (Archer 2020; CLC 2020; Koenig 2020; Scrymgeour 2020; Yu 2020).

There is a growing appreciation of the need to align national conservation priorities and goals with locally-held conservation values and aspirations of Indigenous people to achieve better environmental outcomes (Renwick *et al.* 2017; Fraser *et al.* 2020). Governments, researchers

and organisations, should operate under a mandate to engage Indigenous representatives at local (Traditional Owners), regional (land councils) and national (statutory committees) levels to align conservation efforts. Such arrangements could be supported by brokering organisations such as Prescribed Body Corporates, that play invaluable roles in complex governance and decision-making settings (Hill *et al.* 2013). However, this is unlikely to occur unless specifically mandated under the Act and associated regulations and standards.

Increasing appreciation and application of Indigenous knowledge. The application of Indigenous knowledge offers innovative ways to rethink and improve biodiversity conservation, while also achieving multiple social, cultural and environmental outcomes (George, 2014; Ens *et al.* 2016; Bach *et al.* 2019). Management activities under the Act should therefore aim to achieve mutual benefits for biodiversity conservation and Indigenous wellbeing, by embedding Indigenous knowledge, engaging and restoring leadership of Indigenous people in management decision-making, and remunerating Indigenous people for biodiversity management (Altman & Buchanan 2007; George, 2014; Leiper *et al.* 2018).

As policy-makers move towards a landscape approach for biodiversity conservation, there is a clear synergy with traditional management techniques and an opportunity for innovation in policy and program design. Some Indigenous groups are advocating for Indigenous knowledge to be meaningfully integrated into management objectives, decisions and actions, along with them playing an active role in funding decisions on the Indigenous Estate (Bach *et al.* 2019; Archer 2020; Fraser *et al.* 2020). For example, to date, there has been no successful Indigenous-led listing of a threatened species under the Act. This is largely because the current process for listings is overly bureaucratic and requires specialised skills and expertise in a specific form of western science that currently excludes or fails to recognise Indigenous knowledges in the evidence to support a listing (Hanson-Young & Rice 2019). The cultural significance of

species warrant specific attention under the Act, as they are intrinsically linked to Indigenous knowledge and wellbeing (Scrymgeour, 2020).

Reform recommendations to improve Indigenous engagement and participation

Several of Samuel's (2020) recommendations attempt to safeguard and improve Indigenous engagement and participation in the implementation of the Act (Table 2), including through the adaption of National Environmental Standards (NESS). While there are some significant improvements proposed to the current arrangements under the Act, there are still some risks to the Indigenous estate particularly in the lack of adaptation of international agreements relating to Indigenous people's rights (Woodward *et al.* 2020).

Lack of recognition of the Indigenous estate

The value of the tangible Indigenous estate, which forms a large part of the NRS is intrinsically linked to the value of protected areas in biodiversity conservation (George, 2014; Garnett *et al.* 2018; Schuster *et al.* 2019). As the Indigenous estate grows so too should the recognition of Traditional Owner connection, interests, responsibilities and rights to Country in the legal framework of the Act. This disconnect is glaringly obvious in the lack of legal recognition of IPAs. IPAs form 46.53% of the NRS and are a key conservation program invested in by the Australian government through the implementation of the Act. They are dedicated by Traditional Owners and governed in accordance with IUCN protected area guidelines. However, they do not have formal recognition in line with legally gazetted protected areas under any domestic biodiversity legislation which impacts the effective traditional management of Country as enforcement and on-country decision-making are crippled (Rose, 2013).

The intangible Indigenous estate also lacks recognition and protection. All too often Indigenous peoples and/or their knowledges are represented in academic articles or policy documents to guide

biodiversity conservation without proper recognition or acknowledgement, and worse, inclusion of their knowledge is often misrepresented (Hawke, 2009a; Janke, 2019; CBD, 2020a).

The Indigenous estate has fallen victim to poor policy and program design, and funding decisions in the application of the Act. Over the years, there has been myriad programs and changing funding streams to support the conservation efforts of Indigenous people, and shifts in the political landscape have resulted in withdrawal of funding or changes in policy design with limited consultation with Indigenous peoples (Mackie & Meacham, 2016). Overall, Australia's policy design and funding allocation for the estate has lacked innovation and has become stagnant, with several audits finding that funding is generally inconsistent and insufficient for implementation and achieving the objectives of the Act (Mathie & Crossley, 2007; Hanson-Young & Rice, 2019). Funding shortfalls and inconsistent policy is a failing seen across the whole of Australia's biodiversity management and policy landscape (Wintle *et al.* 2019; Samuel, 2020), but is particularly acute in the Indigenous estate.

Opportunities to improve the recognition of the Indigenous estate

Strengthening legislative recognition of the Indigenous estate. Strengthening recognition of Indigenous people in the Act could be achieved by making changes in the language in the objectives to place emphasis and clarity on the involvement and interests of Indigenous people. For example, objective section 3.1.g (Table 1) ('to provide for the use of Indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge, subject to FPIC, having regard to that knowledge in decision-making in the administration of the Act') could be more direct, less ambiguous and include appropriate financial and administrative supporting mechanisms (Samuel, 2019; Fraser *et al.* 2020; Koenig, 2020).

Importantly, recognition and reform need to go beyond the objectives of the

Table 2. Analysis of 2020 EPBC Act Review recommendations intended to improve Indigenous engagement and participation

Review recommendation	Potential benefits	Potential risks
<p>Recommendations 3 & 5</p> <ul style="list-style-type: none"> • <i>Development and implementation of legally enforceable NES.</i> • <i>Require decision-makers to consider Indigenous views and knowledge.</i> 	<ul style="list-style-type: none"> • NES should provide a benchmark for best practice for Indigenous engagement and participation. 	<ul style="list-style-type: none"> • If Indigenous perspectives are not effectively embedded as a cross-priority in all of the NES, application of Indigenous Knowledge and protection of the Estate is likely to be piecemeal and ineffective.
<p>Recommendations 6</p> <ul style="list-style-type: none"> • <i>The Department should invest in developing its cultural capability to build strong relationships with Indigenous Australians.</i> 	<ul style="list-style-type: none"> • Effective and genuine co-design of policy and its implementation will improve outcomes for the Indigenous Estate, if strong standards for cultural capability and relationships are defined and enforced. 	<ul style="list-style-type: none"> • Key Indigenous environmental programs sit outside of the Department e.g., the ranger program. • Co-design falls short of Indigenous-led policy and program design. • Unless programs to improve cultural capability of jurisdictions and Indigenous leadership in decision-making are properly resourced, policy proposals will be shallow and tokenistic.
<p>Recommendations 14 & 23</p> <ul style="list-style-type: none"> • <i>Accredit State and Territory arrangements to deliver single-touch environmental approvals in the short-term.</i> • <i>Statutory appointment of the Environment Assurance Commissioner.</i> 	<ul style="list-style-type: none"> • An appropriately designed and resourced accreditation system that operates against strong standards of Indigenous participation and leadership could help ensure improved and consistent outcomes for the Indigenous Estate and Indigenous people. 	<ul style="list-style-type: none"> • The governance of the standards under the devolution to the States and Territories will need to consider a connection to cultural understanding and authority. • The Commissioner will need to ensure accountability for Indigenous-led governance with the cultural authority to accredit the standards, and audit compliance and enforcement.

Act and include bringing regulations, policy and programs in line with contemporary and international obligations. The Act needs to recognise and integrate Indigenous knowledge and actively support and facilitate its use in decision-making at the highest levels (Koenig, 2020). This should start with a definition of biodiversity that includes the enduring relationship of Indigenous people with Country and their continued stewardship, in alignment with the CBD (CBD, 2020b).

The Act has not kept up with the growth of the Indigenous estate, as access to Country and resources are impeding aspirations for the estate. This is acute in the resourcing of IPA management, particularly in compliance and enforcement (Archer 2020; Koenig, 2020). State-based negotiations to legally gazette IPAs is challenging as they are a Commonwealth funded initiative. Therefore, peak bodies are advocating for IPAs to become a trigger for MNES under the Act, to afford them the highest level of protection

(Archer 2020; Fraser *et al.* 2020; Koenig, 2020; Yu, 2020), with the definition of MNES to be expanded to include intangible assets of a given place (Yu, 2020). This ensures not only appropriate access to Country and a voice in management of that Country, it could also provide an appropriate range of enforcement mechanisms to effectively protect it (George, 2009). Many Indigenous groups are advocating for local rangers to have the power to respond effectively to breaches of Indigenous-approved management plans, for instance taking of wildlife that offends under customary lore (George, 2009, 2014).

Improving protection of Indigenous knowledge. Indigenous people and their knowledge (the intangible Indigenous estate) support biodiversity in a multitude of ways (Altman *et al.* 2007; Renwick *et al.* 2017). By mandating proponents and researchers to formalise Indigenous approvals and remuneration for access

and/or utilisation of Indigenous knowledge, better protection and management measures for Indigenous knowledge will be built into the Act (Hawke 2009; Fraser *et al.* 2020; Paton 2020; Yu 2020). This will further assist the Australian government in respecting the Nagoya Protocol and implementing its obligations under the CBD.

Linking the Indigenous estate in biodiversity conservation policy and program design. The scale and importance of the Indigenous estate needs to be better reflected and recognised within biodiversity conservation policy and program design, which are driven by the Act, at national and regional levels without sacrificing Indigenous control and management (George, 2009, 2014). This is vital to ensure longevity and security of the contribution of the estate to biodiversity conservation and needs to be coupled with a shift in planning towards a regulated approach that has clear

national goals and priorities that are centred on the values and aspirations of the Indigenous estate (Archer 2020; Koenig, 2020).

A recent example of a missed opportunity of policy and program design to better reflect and recognise the Indigenous estate was the Threatened Species Prospectus (Andrews, 2017). Designed to attract private and philanthropic investment, featuring 51 projects delivered through partnerships with government and non-government organisations including Indigenous groups (Andrews, 2017). However, of the 51 projects only 10 directly involved Indigenous groups. If the scale and value of the Indigenous estate (46.53% NRS and 51% threatened species range) was reflected and benchmarked in the key criteria of the prospectus, a minimum of 25 projects could have involved Indigenous groups, thereby safeguarding a future for Indigenous conservation efforts (Fraser *et al.* 2020).

The Act should furthermore require proactive involvement of Indigenous people, including support for long-term capacity-building (Koenig, 2020), especially for groups who currently have limited resources and capacity to participate in biodiversity management. Australia can take learnings from international programs to develop more targeted funding in addition to its current program funding. For example in Canada, the 'Aboriginal Fund for Species at Risk' supports the development of Indigenous capacity, giving opportunities to less established groups to participate in biodiversity conservation, ensuring all Indigenous people can meaningfully manage their Estate (Environment & Climate Change Canada, 2016).

Indicators for reporting outcomes for the Indigenous estate. As biodiversity outcomes are increasingly linked to the health of Country and cultural wellbeing, the use of bio-cultural indicators are fundamental in supporting place-based cultural perspectives and recognising the relationship between ecological state and Indigenous wellbeing (Sterling *et al.* 2017). Thus, a robust set of metrics and reporting guidelines should be developed to ensure place-based Indigenous-led actions can

be reported and formally recognised in national conservation efforts (Austin *et al.* 2018). These bio-cultural outcomes are integral to improving biodiversity conservation across the Indigenous estate. Further, there is an opportunity to amend the Act, policies and programs, to require the inclusion of Indigenous-led objectives and actions, relevant bio-cultural indicators of outcomes, and resourcing appropriate to achieve agreed outcomes and measurements (George, 2014; CBD, 2020a).

Reform recommendations to improve recognition of the Indigenous estate

Several of the recommendations by Samuel (2020) attempt to promote the value of the Indigenous estate in the Act. While, the intentions are good, there remains key gaps in the implementation (Table 3). A robust co-design process with Indigenous people will need to be in place to ensure these recommendations fulfil their potential and don't result in further weakening of regulations, a more permissive regulatory environment and damage to the Indigenous estate.

The absence of Indigenous-led governance in the Act

It is widely recognised that Indigenous people should have true and meaningful participation in all levels of decision-making and management planning for biodiversity conservation, including representation on steering committees, planning boards and advisory bodies at local, regional and national levels (CBD, 2020b). However, current participation of Indigenous leadership in the decision-making process, under the Act is ad-hoc at best (Archer 2020; Koenig, 2020). All too often decision-making processes of the Act ignore the broader socio-economic and biodiversity conservation benefits arising out of Indigenous people's effective management of the estate (George, 2009).

Indigenous groups have achieved some empowerment through joint management and governance arrangements under the Act (George, 2014). A high profile example being the Anangu peoples permanent closure of the Uluru visitor climb by law

as of October 2019; however, this Indigenous-led management action took 34 years to be realised (Director of National Parks, 2018). Unfortunately, most joint management and co-management arrangements have failed to achieve targets for Indigenous employment or integration of Indigenous Knowledge (Farrier & Adams, 2011; George, 2014; Hehir, 2019; Samuel, 2020). The key issues at play with collaborative management arrangements in Australia, include power imbalances caused by government legislation and funding conditions, which result in Indigenous people experiencing a degree of coercion and the process of Indigenous involvement being reactive rather than proactive (Smyth & Jaireth, 2012).

Opportunities to strengthen Indigenous-led governance in the Act

Empowering Indigenous-led decision-making. To ensure successful biodiversity management, government policy needs to better empower Indigenous people and their governance, and support Indigenous-led planning (Hill *et al.* 2013; Yu, 2020). The Act has a variety of planning mechanisms from protected area management plans (local), to bioregional plans (regional) and recovery plans (national), and there is a clear opportunity to ensure there is an Indigenous-led decision-making process in each level of planning to improve alignment and integration of these plans on the Indigenous Estate. To overcome current barriers of collaborative management and achieve biodiversity returns under the Act, it must be acknowledged that Indigenous knowledge and local Indigenous governance arrangements provide an essential foundation for decision-making. This includes joint management boards accepting the responsibilities and risks that are currently carried by the Director of National Parks (Samuel, 2020). Secondly, it should mandate the integration of Indigenous knowledge in management plans for jointly managed protected areas (George, 2014). The Act should embed mechanisms for the establishment of culturally appropriate governance structures (Paton, 2020), with

Table 3. Analysis of 2020 EPBC Act Review recommendations intended to improve recognition of the Indigenous estate

Review recommendation	Potential benefits	Potential risks
<p>Recommendation 7</p> <ul style="list-style-type: none"> • <i>Comprehensive review of national-level cultural heritage protections.</i> 	<ul style="list-style-type: none"> • Creates alignment of national legislation, to allow for better management of the Estate. 	<ul style="list-style-type: none"> • To avoid piecemeal reform the review must encompass the interactions with the Native Title Act and EPBC Act. • The terminology of cultural heritage should include tangible and intangible elements, with clear links to biodiversity.
<p>Recommendations 5 & 26</p> <ul style="list-style-type: none"> • <i>To harness the value and recognise the importance of Indigenous knowledge, the EPBC Act should require decision-makers to respectfully consider Indigenous views and knowledge.</i> • <i>Develop and implement strategic national plans and regional plans.</i> 	<ul style="list-style-type: none"> • If both recommendations are adopted it will align national, regional and local management priorities, which could see more emphasis on Indigenous-led actions and/or the use of bio-cultural indicators. • Indigenous groups could see improved participation in regional level planning and recognition when national priorities are set. 	<ul style="list-style-type: none"> • Without the mandate to include the Estate into the planning process, we will see Indigenous participation largely based on goodwill partnerships. • Without legislative changes to the protection of Intellectual Property, Traditional Owners could be exploited.
<p>Recommendation 28</p> <ul style="list-style-type: none"> • <i>Investigate and consider how to foster private sector participation in restoration.</i> 	<ul style="list-style-type: none"> • Provides an opportunity to secure long-term funding for the Estate and unlock new economic streams i.e., blue carbon, renewable energy and agriculture ventures. 	<ul style="list-style-type: none"> • Without Indigenous-led policy and program design, we will continue to see a power imbalance in collaborative/ joint management. • Reflective targets for the Estate are paramount as private investment favours mainstream objectives.
<p>Recommendations 29 & 30</p> <ul style="list-style-type: none"> • <i>Ensure that compliance and enforcement functions by the Commonwealth, or an accredited party are strong and consistent</i> • <i>Increase the independence of and enhance Commonwealth compliance and enforcement</i> 	<ul style="list-style-type: none"> • Could enable empowerment of Indigenous land and sea managers to enforce regulations in line with their management plans and customary lore. 	<ul style="list-style-type: none"> • To be effective there needs to be consideration for capacity building and effective pathways for Indigenous groups to become accredited parties.

many Indigenous groups under collaborative management agreements having expressed their aspirations for true 'sole management' (Farrier & Adams, 2011; Samuel, 2020).

Further, many Indigenous groups have lobbied for relevant laws to be amended to enable listing of culturally significant species and/or their values to be included in threatened species listing processes, with co-management to be established as the preferred management approach (George, 2009, 2014; Paton, 2020). Increasing Indigenous representation in all of the Acts' assessment processes and statutory committees by including representatives who understand Indigenous values and can advise other

members of the cultural significance, will strengthen Indigenous priorities under the Act.

Mandating a role for the Indigenous Advisory Committee (IAC).

Indigenous-led decision-making could be strengthened by mandating the role of the IAC to liaise directly with Traditional Owners, as well as with bureaucratic and political systems, ensuring two-way accountability of the IAC (Yu, 2020). The IAC is a statutory committee established in 2000 under section 505A of the Act (DAWE, 2020). It provides advice as requested by the Minister, excluding where an existing statutory committee provides such advice (e.g., the *Threatened Species*

Scientific Committee). However, unlike the Act's other statutory committees, the IAC does not have a clear mandate or remit under the Act. Therefore, the flow and impact of advice from the IAC to improve Indigenous participation relies heavily on the relationship between the IAC and Minister, along with the goodwill links established via a Memorandum of Understanding between the IAC and other statutory committees (Hawke, 2009).

Embedding Indigenous representation in Ministerial decision-making processes.

There is a clear need for structural changes in governance of the Act to alter the decision-making and accountability processes (Samuel, 2019). Currently,

the Minister of the Environment is the primary decision maker under the Act, having to balance political, social and economic influences, which are often at conflict (Hanson-Young & Rice, 2019). The cultural maturity and understanding of the incumbent Minister regarding the Indigenous estate has significant on-ground implications. For example, Ministers in the past have weighed the economic benefits for mining development over the value of protecting significant cultural sites (Higgins, 2019; Johnson & Bell, 2019). Appropriate processes should be put in place to allow the involvement of Indigenous people in all processes that impact their culture, bio-cultural values and the Indigenous estate, prior to the Minister making a decision (CLC 2020).

As such, the Act should be amended to mandate engagement with Prescribed Body Corporates for referrals, consultations, advice and decisions under the Act (George 2009; Hawke 2009; CLC 2020). Perhaps, the creation of a new position

of Indigenous commissioner would ensure that effective Indigenous participation in decision-making and the on-going compliance of Australia's domestic and international obligations are embedded and reported on (Yu, 2020).

Reform recommendations to improve Indigenous-led governance and decision-making

Several recommendations attempt to safeguard and improve Indigenous decision-making in the implementation of the Act (Table 4). While, there are some improvements to the current arrangements under the Act, the recommendations fall short of Indigenous aspirations and best practice standards (Samuel, 2020). Importantly, it is recognised that the standards alone cannot ensure best practice in Indigenous-led decision-making. To achieve this, the Act would require broader reform and detailed legislative amendment (Samuel, 2020).

Key Principles to Improve the Implementation of the Act for Indigenous Empowerment

By applying Indigenous perspectives and embedding the opportunities identified in this article we can identify the best practice principles required to ensure there is meaningful Indigenous participation within the functional components of the Act (listing, planning, assessments and enforcement; Fig. 1). Furthermore, as Australia moves towards a new regulatory model for environmental protection, these directives provide an overview of systemic changes that can be employed to strengthen Indigenous participation and protection of the Indigenous estate (Samuel, 2019). While, changes to the legislative process are necessary, there is also a range of policy and program design improvements that would offer support mechanisms to better equip Indigenous people on the ground to manage vast areas

Table 4. Analysis of 2020 EPBC Act Review recommendations intended to improve Indigenous-led Governance and decision-making

Review recommendation	Potential benefits	Potential risks
<p>Recommendation 12</p> <ul style="list-style-type: none"> Recast the statutory committees to create the Ecologically Sustainable Development Committee (ESDC), the Indigenous Engagement and Participation Committee, the Biodiversity Conservation Science Committee, the Australian Heritage Council, and the Water Resources Committee. 	<ul style="list-style-type: none"> This recommendation includes the recast of the IAC, with an earmarked role in co-design of reforms and NES, formalising the current function of the IAC in decision-making. The transparency measure will offer some protection to the Indigenous Estate as it will require the Minister to demonstrate how Indigenous Knowledge was considered in decision-making. 	<ul style="list-style-type: none"> The NES and revised governance cannot ensure best practice of Indigenous-led decision-making, to do so the Act would require legislative amendment. The ESDC is proposed to be responsible for ensuring advice provided to the Minister incorporates the culturally appropriate use of Indigenous Knowledge, however there is no mention of an ESDC Indigenous member. Recast falls short of ensuring Indigenous people are in decision-making positions and weakens the current statutory committee Indigenous representation.
<p>Recommendations 8</p> <ul style="list-style-type: none"> Commit to working with Traditional Owners to co-design reforms for joint management. 	<ul style="list-style-type: none"> Could enable the empowerment of Traditional Owners in joint management arrangements, if the policy reforms are genuine in co-design. 	<ul style="list-style-type: none"> Falls short of the pathway to sole management desired by many Indigenous groups in collaborative management. Policy reform should be Indigenous-led and encompass more than jointly managed parks.

Improving functional components of the Act

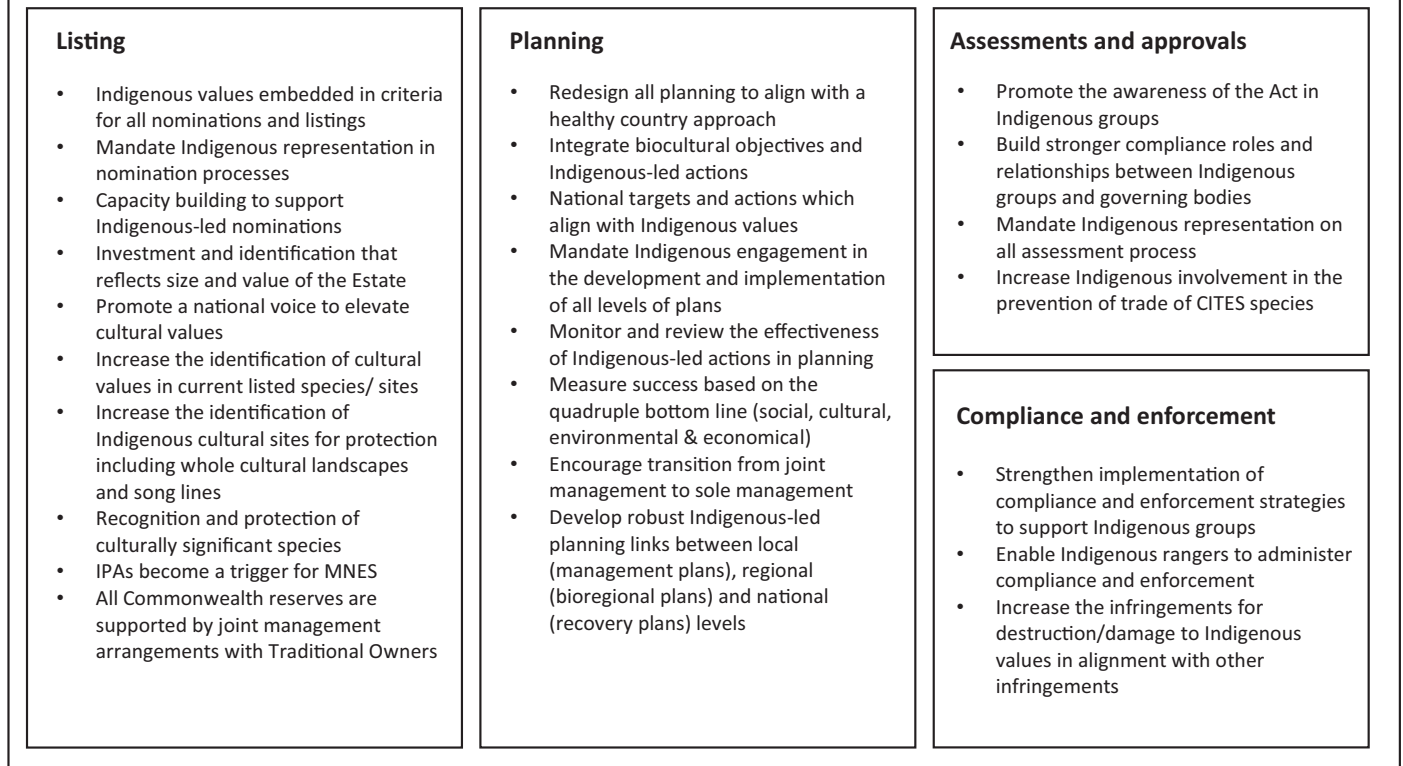


Figure 1. Actions to improve Indigenous participation in the main functional components of the EPBC Act 1999 (each box) drawing upon the foundations for empowerment of Indigenous people: (1) meaningful Indigenous engagement and participation, (2) recognition of the Indigenous estate and, (3) strengthening Indigenous-led governance.

of Country and practice ongoing cultural stewardship responsibilities.

Conclusion

There is a clear need to strengthen the Act to protect Indigenous knowledge explicitly and to recognise the role of the Indigenous estate and 'people on Country' as a fundamental principle of nature conservation and biodiversity management in Australia. Although, it is also important to note that changes to legislation alone will not guarantee greater consideration of Indigenous interests in biodiversity conservation. Sustained effort to promote Indigenous knowledge, people and Country in all aspects of conservation is required including education, on-ground management, policy, research and decision-making.

Unfortunately, in recent years Australia's policy design for the Indigenous

estate has lacked innovation and has become stagnant. We need to consider how to build greater accountability for the integration of Indigenous knowledge and rights into Act-related policy decisions, management planning and reporting. Finally, the adaption and implementation of any reforms which impact on the Indigenous estate need to be co-designed with Indigenous people in a genuine manner which moves past engagement to active participation in the decision-making process.

Acknowledgements

We would like to extended our gratuity and deep respects to Melissa George, former Chair of Indigenous Advisory Committee, whose invaluable and innovative advice inspired this work, along with present and past members who have

championed Indigenous aspirations. Teagan Goolmeer was supported by an Agilent Australia PhD scholarship.

Conflict of Interest

Teagan Goolmeer is Deputy Chair of the Indigenous Advisory Committee and a member of the NESP Threatened Species Recovery Hub - Indigenous Reference Group.

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