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Environmental assessment simplification in Botswana – is it fit for purpose?

Gorata Kingsley Matome^a and Thomas B. Fischer^{b,c}

^aDepartment of Environmental Science, University of Botswana, Gaborone, Botswana; ^bEnvironmental Assessment and Management Research Centre, School of Environmental Sciences, University of Liverpool, Liverpool, UK; ^cResearch Unit for Environmental Sciences and Management, Faculty of Natural and Agricultural Sciences, North West University, Potchefstroom, South Africa

ABSTRACT

Environmental assessments (EAs) in Botswana are insufficiently influential in decision-making and have been criticised for contributing to extended transaction costs and timelines. Therefore, efforts to simplify EA have been undertaken. Whilst internationally, the value of EA is judged by its capability to raise the profile of environmental issues and enhance public participation in decision processes, current EA simplification interventions in Botswana aim at constraining access to environmental information, at reducing public participation provisions and at restricting the scope of environmental impacts to be evaluated. Ultimately, EA is intended to be replaced with outcome-based tools aiming to mitigate and compensate for environmental damage rather than avoiding it. The authors therefore suggest that simplification efforts in Botswana are bound to erode benefits associated with EA and are not fit for purpose. In this paper, three recommendations are offered: whilst outcome-based tools can be prepared for projects that were assessed by EA they must be firmly tied to them. Furthermore, discretion in decision-making needs to remain in place, and data sharing should be enhanced by placing EA reports in the public domain.

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1. Introduction

Botswana has a long history of applying environmental impact assessment (EIA) voluntarily to major projects, dating back to the early 1980s (Aniku 2011; Segosebe 2020). In the early 1990s, the country also prepared its first strategic environmental assessments (SEAs; Mpotokwane and Keatimilwe 2003; Dalal-Clayton and Sadler 2004). Currently, EIA is a mature tool for environmental protection, albeit experiences with SEA practice still being limited (Mathope and Toteng 2015; Makaba and Munyati 2018; Matome 2023b, 2024; Matome and Mulale 2023).

Today, in Botswana EIA and SEA are required by law (Makaba and Munyati 2018; Matome 2023b). Furthermore, Environmental Management Plans (EMPs) are mandatory. These are typically appended to EIA and SEA documentation to facilitate follow-up activities such as monitoring and auditing (Matome 2021; Sebopelo 2021). However, EMPs are also prepared independently for certain activities that do not require a full EIA (DEA Department of Environmental Affairs 2012, p. 40). EMPs with SEA orientation have been prepared to strategically guide future developments in, for example, ecologically sensitive areas such as the Okavango Delta (Makaba and Munyati 2018).

The first national legal framework to require EMPs, EIA and SEA – collectively referred to as environmental assessments (EAs) – was the 2005 maiden EIA Act (DEA

Department of Environmental Affairs 2005) which was reviewed, in 2010, and ultimately repealed by the 2011 EA Act (DEA 2011) and the accompanying 2012 EA Regulations (DEA 2012). The amendment focused, among other things, on legislating procedural requirements for project EIAs and EMPs, on providing a list of activities, locations and thresholds for which EIA and SEA are mandatory, and provided the legislative basis for the development of an EA practitioner's professional body (Segosebe 2020; Matome 2023b). Segosebe (2020, p. 50) remarked that this reform aimed at advancing the 'effective application of the environmental impact assessment procedure'. However, later the EA Act was amended by the 2020 EA (Amendment) Act (DEA 2020) and the 2021 EA (Amendment) Regulations (DEA 2021). The agenda of the latest revision was related to, in particular, the need to ease EA requirements and procedures to hasten economic development. To date, implications of the latest revisions on EA practice have been poorly researched and commented on, with authors mainly focusing on implications for SEA – stressing its potential to facilitate convergence during (strategic) impact evaluation (Matome 2023b; Matome and Mulale 2023).

Although EA simplification is high on the political agenda in many countries, reflections on EA simplification have so far largely focused on systems in Asia, Europe, Northern and Latin America (see, e.g., Fischer

CONTACT Gorata Kingsley Matome  matomegorata@gmail.com  Department of Environmental Science, University of Botswana, Private bag UB, Gaborone 00704, Botswana

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2022, 2023a; Arts and de Vries 2023; Faith-Ell 2023; Fonseca 2023; Geißler and Jiricka-Pürner 2023; González and Sobrini 2023; Haľadyj et al. 2023; Jha-Thakur 2023; Kørnøv and Lyhne 2023; Noble 2023). So far, African attempts for EA simplification have rarely been discussed. Countries that have been mentioned include Nigeria, South Africa and Sudan (Bond et al. 2014; Alberts et al. 2023; Fischer et al. 2023).

Importantly, EA simplification efforts globally are said to be connected with shifts in political agendas and a desire to accelerate planning processes and reduce transaction costs associated with EAs (Gibson 2012; Bond et al. 2014; Fonseca et al. 2017; Fischer and Retief 2021). However, the drivers for simplification efforts are context specific and diverge between countries (Fonseca et al. 2017; Enriquez-de-Salamanca 2021). To date, 'who is driving these efforts and what is included have been poorly understood' (Fischer et al. 2023, p. 182). This is why EA simplification has recently become a focal point of EA research (Fischer 2022; Fischer et al. 2023). To that end, in this paper the authors critically evaluate current endeavours in Botswana. In this context, the extent to which simplification is fit-for-purpose is determined by exploring the underlying drivers, nature/extent and anticipated implications of simplification interventions for EA practice.

Simplification interventions differ across jurisdictions (Enriquez-de-Salamanca 2021). In this context, a single explorative case enables an in-depth analysis of a phenomenon within its operational context (Yin 2014). Looking at EA simplification in Botswana does not only offer insight from – what are often under-researched – African countries but enhances empirical knowledge regarding EA simplification as a global EA system reform strategy (Fischer et al. 2023). Such an approach allows for inductive EA theory-building (Matome 2024) and for advancing knowledge regarding international EA policy reforms (Fonseca and Rodrigues 2017).

2. Methodology

Key sources for analysis were publications (peer-reviewed journal articles, book chapters and policy briefings) along with unpublished materials (e.g. unpublished Master theses), dealing with EA in Botswana. Published materials were identified, using a SCOPUS¹ search (title, keywords and abstract search for 'environmental impact assessment', 'strategic environmental assessment' and 'Botswana'). The search was limited to the period from 2011 (when the EA Act came into force) to the present time. SCOPUS was selected for its extensive coverage – it is the largest database for peer-reviewed literature – and due to its advanced

search options (Fischer et al. 2015; Noble and Hanna 2015; Caro-Gonzalez et al. 2023).

A total of four journal articles, all evaluating SEA practice in the country, were identified – distributed between two journals: Impact Assessment and Project Appraisal (IAPA) (three articles) and Environmental Development (one article). Only one book chapter (Segosebe 2020) was also identified through the search. The limited number of publications reflecting on EA regulation and practice in Botswana implies that EA is yet to become an established research topic, which is true for many developing nations (see, e.g., Malvestio and Montañó 2019; Retief et al., 2021).

In the professional literature, there is consensus that regional and national journals often host most of the peer-reviewed literature reflecting on EA systems in developing countries and non-native English-speaking countries (Geißler et al. 2019; Caro-Gonzalez et al. 2023; Fischer, 2023c). As a result, a further search was conducted on Google Scholar – using the same keywords and time restrictions. The search strings generated a much larger pool of publications. However, most of the publications were not dealing with the decision-support tool EA (encompassing both, EIA and SEA; see, e.g., Fischer, 2023b) but rather focused on environmental management in general – citing EIA or related legislation in Botswana as a strategy to curb environmental degradation (see, e.g., Mbaiwa et al. 2011; Akinola et al. 2017). This was the main reason why these articles were picked up by the metasearch engine (Google Scholar). Consistent with Noble and Hanna (2015), these articles were excluded from evaluation because their primary focus was not on EA.

An additional two journal articles (which dealt specifically with EA regulation and practice in the country and across African states) were identified, of which only one (Mathope and Toteng 2015) contained the search terms in the title, abstract and keywords. Another article by Tshibangu (2018) did not include Botswana in its title, abstract or keywords; however, a critical consideration of its methods section revealed that it focused on Botswana as one of the empirical cases and was therefore retained for further evaluation.

Ultimately, a dozen academic publications were used to support the evaluation of simplification attempts in Botswana. These include six journal articles, a book chapter, along with one policy briefing, two MSc dissertations and one PhD thesis. No publication was found which examines EA practice under the new legislative regime.

In addition to these 12 documents, contributions from the University of Botswana Department of Environmental Science's 3rd annual workshop on EA practice and audit in Botswana (for which the first author served as one of the organisers and presenters) provided further insights. This workshop was held on

24 April 2023 and was based on a 3-h-long session consisting of four presentations, followed by a 2-h-long round table discussion on the quality and effectiveness of EA regulation, practice and audit procedures in the country. This was attended by over a dozen EA experts from Botswana, including government regulators (DEA officials), environmental assessment practitioners (EAPs), EA academics from the University of Botswana as well as other specialist practitioners in the areas of range ecology (responsible for, e.g., biodiversity impact assessment – BIA) and archaeological and heritage impact assessment (AHIA). Apart from proponents and the general public, these are the most active stakeholders in Botswana's EA praxis (see, e.g., Aniku 2011; Kaboyakgosi and Marata, 2013; Makaba and Munyati 2018; Sebopelo 2021; Matome 2023b, 2024).

Informed consent was acquired from all participants prior to the workshop. During the workshop, all participants were informed that the workshop proceedings were being recorded. This was repeated after every presentation to ensure that walk-ins were aware of this arrangement. For all presenters, consent to use their materials in publications (derived from the workshop) was acquired in line with professional requirements for academic works (see Creswell 2014; Patton, 2015). While presentations are cited in this article, comments and round table discussions were acquired anonymously.

A final data source was verbatim transcriptions of the parliamentary sessions held on 17 September 2020 – the day the Environmental Assessment (Amendment) Bill Number 13 of 2020 was debated and endorsed by the National Assembly (see Hansard 2020). The data thus obtained provided a holistic overview of practice (including simplification) from a multi-stakeholder purview. Following the approach by Fonseca et al. (2017), Matome (2023b) and Stone et al. (2021), workshop and discussion material was recorded, transcribed verbatim, coded and analysed by reducing it into themes reflecting a collective expression, idea or concept. Coding and thematic analysis were undertaken for published and unpublished documentation, including workshop presentations and parliamentary debates.

As a documentary review underlying this paper was undertaken to determine the extent, quality and effectiveness of EA practice in the country, as well as possible drivers for EA simplification, a deductive approach was followed.

3. Results

3.1. Reasons for EA simplification in Botswana

There are various reasons for EA simplification in Botswana. These are mostly linked to the desire to attract foreign investment, and to achieve economic diversification and growth (Mathope and Toteng 2015;

Hansard 2020). In this context, the Minister of Environment, Natural Resources Conservation and Tourism (Ms Kereng) noted that, following the implementation of the Environmental Assessment Act No. 10 of 2011, 'the Botswana Doing Business Report of 2012 rated Botswana low on investor friendliness. This report identified the EIA process as one of the licensing bottlenecks that impedes foreign investment and delays project implementation' (Hansard 2020). The Minister further added that 'the Doing Business Report recommended that the current EIA process be streamlined to shorten the turnaround time for developers to obtain environmental authorisation and start their projects'.

Connected with this is the widely held perspective that investors tend to find out late (during project authorisation) that their proposed initiatives require EA (see Matome 2021; Sebopelo 2021), which is surprising, as existing regulations clearly specify locations, activities and thresholds for which an EA is mandatory. These are available freely in the public domain and online. Also, when submitting a proposal, the developer must confirm that they understand requirements (Sebopelo 2021).

Various authors (see, e.g., Mathope and Toteng 2015; Makaba and Munyati 2018; Matome 2023b, 2024) have suggested that proponents in Botswana often regard EAs as costly, because of a low preparedness to pay for environmental damages. In this context, EAs are seen to be expensive because they deal with environmental protection, which is usually an afterthought at best in development and is excluded from mainstream business planning (Matome 2023b, 2024). Also, EA legislation has a clause that enables the Minister of Environment to exempt any project from EA at their discretion (Tshwene-Mauchaza 2015). As such, rather than prepare an EIA, some proponents opt for requesting a waiver to save themselves the time and cost implications that accompany EA. However, environmental damage resulting as a consequence then has to be paid for by others.

In terms of the length of an EA process, many factors account for its duration. Previous studies have established that environmental data in Botswana are patchy, in part as a result of limited research in certain areas but also as a consequence of limited data sharing (Matome 2023b, 2024; Matome and Mulale 2023). Here, EAs may require a bit more time to gather baseline information. Also, EAs are generally considered lengthy processes because proponents and EAPs frequently prefer rapid expert-based studies rather than more detailed and participatory EAs, which are mostly required by competent authorities (Matome 2024). Furthermore, it has been argued that the competent national authority (i.e. the DEA) is understaffed (Tshwene-Mauchaza 2015; Makaba and Munyati 2018; Matome 2024) and that technical departments and

local authorities, who are to be assisting the DEA on certain aspects like reviewing EA statements and monitoring post project/PPP implementation, have withdrawn from the process (Aniku 2011; Matome 2023b). In addition, the absence of independent EA quality reviewers has been specified as likely to impair EA practice (Tshibangu 2018). Also, it has been suggested that the shortage of DEA regional offices across the country and the prevailing technical and human resource constraints experienced by the DEA have resulted in operational inefficiencies (Mathope and Toteng 2015; Tshwene-Mauchaza 2015; Matome 2024). Therefore, the duration of an EA may be extended simply because the competent authority is short-staffed.

Importantly, in Botswana, EAs are often conducted late – after key decisions relating to the location, scale and design of an initiative have been made (Matome 2023b; Matome and Mulale 2023). In this context, EAs often justify developments even where they pose significant environmental risks (e.g. to water quality and quantity), in particular based on proposed, yet often inadequate mitigation and compensation measures (Sebopelo 2021; Matome 2023b). As a consequence of late initiation, weaknesses of Botswana's EIA and SEA systems include little rigour in the process of

identifying and formulating alternatives and the use of what has been dubbed 'pseudo options' (Makaba and Munyati 2018; Sebopelo 2021; Matome and Mulale 2023). Similar to the UK (Fischer 2023a), EAs in Botswana are regarded as 'overly technical', and as a consequence being of limited use during decision-making (Matome 2023b, p. 276). Whilst developers often disregard environmental commitments made during project EIA (Tshwene-Mauchaza 2015), 'SEA (in Botswana) tends to be more effective, in particular, where its role is to provide environmental information on preconceived plans than where SEA is used to discuss and shape plans and associated alternatives' (Matome 2023b, p. 277). Generally speaking, the EA system in Botswana has been said to be rarely influential. As a result, some stakeholders are unconvinced of its value in decision-making and accordingly argue for its simplification (Mathope and Toteng 2015; Matome 2024).

3.2. EA simplification interventions in Botswana

In Botswana, numerous changes are brought about by the new EA (Amendment) Act and the EA (Amendment) Regulations (see Table 1). The amendments focus predominantly on simplifying EA by shortening review

Table 1. Environmental assessment legislative reforms in Botswana since 2011.

EA regime thematic area	2011 EA act and 2012 EA regulations	2020 EA (Amendment) act and 2021 EA (Amendment) regulations
Type of effects to be assessed during EA	EIAs to evaluate effects of initiatives with particular reference to (1) health, safety or quality of life of people; (2) archaeological, aesthetic, cultural or sanitary conditions of the environment; and (3) configuration, quality and diversity of natural resources (DEA 2011: section 9.2).	List of type of effects to be evaluated is retained for EIA and extended to SEA (see DEA 2020: Section 9.2).
List of activities requiring EA	Mandatory activity list established (for the first time) in the EA regulations of 2012 for EIA and SEA.	Mandatory activity list was revised: Some projects previously requiring EIA now require EMP; thresholds for triggering EA have been raised higher; radius around ecologically sensitive areas within which EA is mandatory has been reduced; and, new categories of developments now require EIA.
Type of environmental management tools	Required EIA and SEA for stipulated activities and EMPs for activities which do not qualify for a full EIA.	Added waste management plans and rehabilitation plans to the list of environmental management tools; however, the activities to which they apply are not specified.
Duration for: <ul style="list-style-type: none"> Placing proposal-related information on publically accessible media The review of a project brief The review of the TOR and scoping report Review of EA statements Review of waste management plans and rehabilitation plans 	Set at 21 days (DEA 2011: Section 7.2) Not specified. Set at 28 days for EIA (DEA 2011: Section 8.4) Set to 60 days (DEA 2011: Section 10.1) Not applicable; these were not required then.	Reduced to 10 working days (DEA 2020: section 7.2). Set to 3 working days (DEA 2020: Section 6.3) Reduced to 10 working days for both, EIA and SEA (DEA 2020: section 8A.3). Set to 14 working days for EIA statements, 10 working days for EMPs and, a month for the review of SEA statements (DEA 2020: sections 10.3–10.5) Set to 5 working days (DEA 2020: section 6.7)
Review of EAs	Review of EAs to be undertaken by DEA (i.e. government reviewers) in collaboration with technical departments and local authorities.	Private EA quality reviewers also to assist DEA, technical departments and local authorities in the review of EAs.
Declaration of conflict of interest	Required for EAPs (DEA 2011: Section 64)	Also required for – newly permitted- private EA quality reviewers (DEA 2020: Section 66.3)
Penalty for an EAP or private reviewer who engages in practice with an undisclosed conflict of interest	Fine ≤ P2,000 or imprisonment ≤ 3 month or both; it was only applicable to EAPs.	Fine ≤ P2,000 or imprisonment ≤ 3 month or both; also extended to private reviewers.

Source: Summarised from DEA (2011; DEA (Department of Environmental Affairs) 2012, 2020, 2021).

processes and providing for private EA reviewers, which was the core aim of the reform (see DEA 2020). The following four sections provide a critical reflection of the different simplification efforts currently undertaken in Botswana. This is done with a view to provide evidence not just to those from Botswana, but also to the wider international community. In this context, simplification efforts aim at (1) reducing the scope for evaluation effects of PPPs in SEA; (2) refining screening criteria and potential replacement of EIA; (3) shortening public participation and consultation timelines; and (4) shortening timelines for the review of EA statements.

3.2.1. Reducing the scope for evaluating effects of PPPs in EA

In Botswana, EAs are designed to be sustainability-led albeit the consideration of environmental aspects in policy, plan, programme and project preparation is arguably poor (Matome 2023b; Matome and Mulale 2023). Initially, when EA was introduced, the 'environment' was considered to include 'the physical, ecological, archaeological, aesthetic, cultural, economic, institutional, human health and social aspects of the surroundings of a person' (DEA 2005: section 2; 2011: section 2). Eighteen years later, in 2023, it is still mandatory in Botswana for EIAs to evaluate the effects of any activity with particular reference to the (1) health, safety or quality of life of people; (2) archaeological, aesthetic, cultural or sanitary conditions of the environment; and (3) configuration, quality and diversity of natural resources (DEA 2011: section 9.2). These requirements are one of the most enduring traits of EIA in Botswana. This has recently been extended to SEA (DEA 2020: Section 9.2), which may increase convergence and consistency in the evaluation of various substantive issues during an SEA (Matome and Mulale 2023).

3.2.2. Refining screening criteria and potential replacement of EIA

Botswana applies a list-based screening approach. One of the key simplification efforts includes narrowing down this list, with regard to locations, activities and thresholds for which an EIA is mandatory. Some activities which previously required an EIA (e.g. commercial plants for the manufacture of charcoal and coal briquettes, pulp and paper mills, establishment/expansion of wood processing operations, amusement parks) now only require the preparation of EMPs (DEA 2012, 2021). In addition, thresholds that trigger EIA in, for example, environmentally sensitive areas have been reduced: an EIA is required for any development within 0.5 km (reduced from 1 km) of open surface water, flood plains, important breeding areas for fauna; and, within 1 km (reduced from 2 kms) of important archaeological, historical, religious or cultural sites, areas protected under legislation, hilly areas

and areas containing rare or endangered flora and fauna (DEA 2012, 2021).

Importantly, whilst attempting to simplify, the opposite has also occurred, for example the inclusion of some new categories of developments (e.g. power lines outside urban areas or industrial complexes with a voltage of 230KV and above or more than 50 km in length; DEA 2021). In addition, the new regulations maintain that in the absence of EA, EMPs may be prepared for operations such as the extraction of pit sand, gravel and clay particularly 'when the extraction is on a freehold land or from an existing burrow pit' (DEA 2021).

3.2.3. Shortening public participation and consultation timelines

Under the previous EA regimes (DEA 2005, 2011), in Botswana public participation was required twice, during scoping (as public review) and during approval of the EA statement, which was placed in the public domain for public inspection. This brought the public participation component of Botswana's EA system in line with international best practice (Mathope and Toteng 2015; Matome and Mulale 2023). Under the new act and regulations, public participation is still supposed to happen during scoping and public review of EA statements, but the time frames have been reduced significantly. For instance, the duration for publishing information related to the proposed initiative on publicly accessible media during a scoping exercise (after which public meetings are to be held) has been reduced from 21 days (DEA 2011: section 7.2) to 10 working days (DEA 2020: section 7.2). Because the label 'days' was not defined it was unclear whether it included or excluded weekends and holidays. Therefore, the duration for publishing project or policy, plan or programme (PPP) information on publicly accessible media during scoping remained contested. For instance, the competent authority tended to interpret the original timeframe as '21 working days', while EAPs and proponents tended to interpret it as '21 days' including any day regardless of whether it is a public holiday, weekend or working day. In this context, EAPs and proponents calculated the time to refer to 3 calendar weeks (i.e. a minimum of at least 15 working days plus 3 weekends). If the working days were interspersed by public holidays, officials of the competent authority argued, the time they had to work on the EA was reduced significantly. Therefore, the interpretation of the competent authority (i.e. interpreting the time as '21 working days') was adopted as the 'rules in use' (Ostrom 2007, p. 22) albeit EAPs and proponents always contested this, arguing that it prolonged their project timelines unnecessarily.

Under the new regime, approved EA statements are no longer public documents available on the public register for public inspection (CF DEA 2005: section 22;

2011: section 62), and some EAs prepared thereafter have copyright protection, prohibiting any reuse without written consent from the copyright holder (see, e.g., Ecosurv 2021). Importantly, public participation during the preparation of an EMP is not guaranteed: the competent authority may request a developer to (1) consult stakeholders or (2) prepare an EMP – without stakeholder consultation (DEA 2020: section 6.9(a)). This requirement is similar to the requirements under the previous regime (see DEA 2011: section 6.6), except that it is now clear that an EMP may be prepared and ultimately be approved without stakeholder consultation.

3.2.4. Shortening timelines for the review of EA statements

The new Act shortens the duration for the review of EA statements, with Section 6(3) demanding that a project brief be reviewed within 3 working days (DEA 2020). Under the old regime (see DEA 2011), the duration for reviewing a project brief was unspecified and differed significantly. Moreover, the turn-around time was shortened when the number of applications in the regional office was low but tended to grow significantly with an increase in applications submitted to a regional office.

In addition, the new act has also mandated that the terms of reference (TOR) for both, an EIA and SEA be approved within 10 working days after the receipt of the TOR and scoping report (DEA 2020: section 8A.3). Before the latest change, the TOR of an EIA was to be reviewed within 28 days of receipt of the TOR and scoping report (DEA 2011: section 8.4). As per the ‘rules in use’, where ‘28 days’ refers to ‘28 working days’, the reform has significantly reduced the time by over half.

There are even shorter time frames for certain developments, for example, waste management plans, rehabilitation plans or any other plans required by the competent authority per DEA (2020: section 6.5(b)). These shall be reviewed within 5 working days (section 6.7). Importantly, to advance the consistent preparation of rehabilitation plans, a regulated template is provided in the new regulations (DEA 2021). Finally, the duration for reviewing environmental statements is reduced from 60 days (DEA 2011: Section 10.1) to 14 working days for EIA statements, 10 working days for EMPs, and a month for the review of SEA statements (DEA 2020: sections 10.3–10.5).

Importantly, mandates of (1) waste management plans, rehabilitation plans and EMPs and (2) strategic-level EMPs and SEA are not entirely clear.

3.4. Implications of EA simplification attempts on practice in Botswana

It is difficult to clearly state the implications of EA simplification efforts adopted in Botswana. In this

context, an earlier review of the quality of SEA reports prepared in Botswana between 2011 and 2018 highlighted numerous shortcomings related to:

- the description of the baseline environment;
- the listing of baseline documents;
- the identification of problems relating to, and the effects of, the proposed plan on areas of ecological significance;
- the evaluation of secondary, cumulative and synergistic effects;
- the elaboration of various properties of effects;
- the consideration given to effects on various sustainability receptors and health implications;
- the conduct of SEA following applicable national SEA frameworks;
- the uncertain effects of public participation and SEA on the proposed plan; and,
- the description of how developed monitoring arrangements can be used to reduce duplication of efforts between SEA and EIA (Matome and Mulale 2023).

Makaba and Munyati (2018) pointed out that the poor technical quality in formulating sustainability measures as mitigation and the lack of clear guidance as to who is responsible for monitoring constrained the performance of EMPs. Equally, Aniku (2011) and Sebopelo (2021) highlighted inconsistent but overall poor EIA report quality in Botswana, with Tshwene-Mauchaza (2015) arguing that EIA, as currently employed, fails in contributing to environmental protection. Despite comparatively better knowledge of EIA and the recognition of it as a critical tool for environmental governance, informants ‘pointed out staff shortages in terms of environmental officers as contributing to the poor performance of environmental assessment processes’ (Makaba and Munyati 2018, p. 7). Here, Tshibangu (2018) noted that the absence of independent quality reviewers in the country may contribute to staff shortages and poor EA report quality.

However, current evidence suggests that rather than reducing the time, in actual practice, recent reforms have remained ineffective. Several factors were outlined by workshop participants as accounting for this failure. Firstly, it was admitted that while the competent authority (DEA) may be acquiring new staff, the department has also lost most of its experienced staff to other departments (through departmental transfers), to the private sector and, most importantly, to retirement (Leepile 2023; Matome 2023a; Perkins 2023). Secondly, it was stated that new staff tended to have general knowledge of environmental management, but not of EAs (Leepile 2023; Matome 2024). In this context, workshop participants (specifically those from the competent

national authority) highlighted that such reviewers often focus on whether EAs followed procedures rather than on substantive aspects. In addition, while DEA (2020: section 62.2) aims to use private sector reviewers² to tackle staff shortages and to reduce pressure, their deployment has not yet begun. In this context, increased EA activities (see below) have advanced the workload, particularly for experienced reviewers who have to cross-check /supervise the work of new staff. As a result, review times remain the same if not being longer, which has caused a lot of unrest between the DEA, EAPs and proponents, with the latter pushing for immediate approval even if review processes are not complete (Leepile 2023; Perkins 2023; Thebe 2023).

Although it is difficult to attribute a cause and an effect, there has been a significant increase in the number of project briefs submitted for screening, EIAs, EMPs and SEAs prepared in Botswana since simplification attempts started. In the period 2000–2020, an estimated 20 SEAs (1 pa) were prepared across Botswana (Matome 2024). Since then, over a dozen SEAs have been initiated nationally. In addition, evidence from the DEA regional office in Gaborone (also the DEA headquarters) suggests that during the 3 years before simplification – from 2017 to 2019 – a total of 560 project briefs, 108 EIAs and 258 EMPs were conducted. In the post-simplification period (i.e. 2020–2023), the total number of project briefs had increased to 780, while the number of EIAs and EMPs increased to 120 and 380, respectively. At least a quarter of EMPs prepared in the post-simplification era (in the Gaborone DEA regional office) were from developments (e.g. petroleum service stations) which previously required EIA but now only require EMPs.

In addition, some workshop participants noted that because EAPs are aware of the unfavourable timelines and increased workload, even sections which were previously done satisfactorily (e.g. connected to the description of the proposal, baseline, public participation and monitoring) are now done poorly (see also Leepile 2023; Perkins 2023). For instance, one DEA official noted that some EAPs frequently cite limited research as a constraint to identifying baseline data even if a given locality (e.g. the Okavango Delta and most planning areas) is well researched (see also Matome 2024), whilst others tend to manufacture public comments (often based on previous work in the area) rather than undertake public consultations. In this context, they highlighted that since EA reports are usually lengthy (200 pages long or more; see, e.g., Leepile 2023; Matome 2023a; Perkins 2023), it becomes difficult to critically review them. This was said to be especially true if the previous reviewer is transferred and the work is handed to another reviewer who

would need to go over the whole report with a ‘fine tooth comb’.

Participants also expressed concerns regarding the introduction of waste management plans and rehabilitation plans as alternatives to EIA. For instance, Matome (2023a) and Perkins (2023) noted that conventional EMPs have sections that deal specifically with managing waste and ensuring land reclamation after projects are decommissioned, which is now the purpose of rehabilitation plans (see DEA 2021). Here, most participants (including those from the competent national authority) questioned the relevance of having these new environmental management tools, arguing that they are likely to facilitate environmental degradation. This was said to occur because these tools focus on specific aspects such as waste management, meaning that effects, e.g. on biodiversity would not be managed.

In addition, some participants suggested that some developers (particularly those with political backing) are likely to demand waste management or rehabilitation plans to circumvent EIA. As they have not been linked to any activity, the application of these tools is likely to be inconsistent and possibly even abused (Perkins 2023). Accordingly, participants claimed that the move to include – what are deemed by developers – simplified tools would likely aggravate environmental problems, which was the initial driver behind the development of national EA legislation.

4. Discussion

4.1. Weaknesses of the EA system v drivers for EA simplification: a critical review

EA simplification in Botswana was largely driven by a 2012 Doing Business report (World Bank 2012), which argued that the EIA system in Botswana is a licensing bottleneck and thus needs streamlining. Whilst the 2012 Doing Business Report by the World Bank criticised EA, as stated above, it did not take the reforms of the Environmental Assessment Act of 2011 into account (World Bank 2020, p. 61). Therefore, its conclusions that the EIA system adds an unnecessary administrative burden on Botswana’s small- and medium-sized businesses were reached based on outdated information. Subsequently, and in recognition of the reforms (the exclusion screening criteria) entailed in the 2011 Environmental Assessment Act (DEA 2011) and the 2012 Environmental Assessment Regulations (DEA 2012), a later World Bank report suggested that ‘Botswana made dealing with construction permits easier by eliminating the requirement for an environmental impact assessment for low-risk projects’ (World Bank 2014, p. 28, 2020, p. 61). However, this important point was ignored during the parliamentary debates relating to the Environmental Assessment (Amendment) bill No. 13

of 2020, and reference was made only to the 2012 World Bank report (see Hansard 2020).

As stated, the World Bank (2012) suggested that there was a need to streamline the EIA system based on the disproportionate cost it places on low-risk projects and small- and medium-sized enterprises. While proponents in Botswana often decry limited funds, EAPs have expressed that they invest very little to enable effective EA (Matome 2023b, 2024). As proponents already have control over the funds injected into EAs, it is questionable if EAs are still a cost burden. Here, it is likely that proponents have an inflexible negative attitude towards EAs no matter how simplified they may be, as was similarly found in Brazil (Fonseca and Rodrigues 2017).

Previous research in Botswana (Segosebe 2020) explicitly identified EA practice in Botswana as a sound strategy to curb environmental degradation by predicting related effects and proposing measures for mitigating them. Most stakeholders in Botswana (e.g. engineers, physical planners and some proponents) are also genuinely open to EA as a mechanism towards green decision-making despite financial constraints (Makaba and Munyati 2018; Matome 2023b, 2024). In this context, the driving reasons for EA simplification in Botswana are not only misled but also run counter to some empirical research in the country.

In Botswana, the ruling party has been accused of developing self-serving public policies, permitting developments across various sectors, including tourism and physical planning based on bribes (see, e.g., Molebatsi and Kalabamu 2018; Mbaiwa and Hambira 2019). In this context, the ruling party is also accused of developing public policies in response to questionable research findings (e.g. Chase 2011) even if they were made aware (by the academic community) of their limited reliability, for example due to significant methodological flaws (Mbaiwa 2018, p. 48). Therefore, it is probable that this important information was deliberately omitted during the parliamentary debates.

It is worth noting that, similar to Australia, Canada, South Africa and the UK (Bond et al. 2014), EA simplification efforts in Botswana coincided with an economic downturn, here during the COVID-19 pandemic. While the global effects of COVID-19 were serious, in Botswana, it crippled all sectors including the main foreign exchange earners, namely mining and tourism (Hambira et al. 2022). In this context, the productivity of hotels, restaurants and the broader tourism sector declined by 40% in the second quarter of 2020, while the diamond sector's productivity in carats declined by 67% (Stone et al. 2021). It is in this context that it is important to acknowledge that sustainable development is frequently confused with 'sustainable economic growth' (Bond et al. 2014), resulting in other issues, in particular environmental ones being sidelined.

It also appears that the current weakening of EA relates to a shift from the conservative approach (of former President Ian Khama) towards a libertarian agenda (of current President Mokgweetsi Masisi) in which environmental considerations are reportedly valued less (see, e.g., Mbaiwa and Hambira 2019), as was similarly described for other governments with similar political visions (see Fischer 2016). In this context, 'EA often provides for an important but unwelcome message to proponents and authorities' related to the extent to which project development and environmental objectives can (or cannot) be met and reconciled (Arts and de Vries 2023, p. 243). Also, governments with libertarian agendas are often hostile to EIA as a non-market-based administrative tool (Fischer 2023a). This is an important reason why even in the absence of any clear evidence (Fischer et al. 2023; Noble 2023), ideological thinking influences political agendas, leading to simplification actions (Arts and de Vries 2023).

4.2. EA simplification interventions: are they fit for purpose?

EAs in Botswana are required to evaluate a narrow list of effects, which do not include climate change. The desire for EAs to focus on a selected range of thematic areas appears to have become something of a mantra in EA simplification, for example in Canada (Gibson 2012) and the United Kingdom (Fischer 2023a). Whilst some associated attempts are currently also made in Botswana (DEA 2020: Section 9.2) this has not yet resulted in any changes. In this context, it is important to remember that when the range of criteria to be considered is narrowly defined, it is usually difficult to consider non-mandatory issues, even if those are of great importance. This was shown, for example, for climate change in Austria and Germany (Geißler and Jiricka-Pürer 2023).

Furthermore, in Botswana, some activities which previously required EIA now only require EMPs, whilst new categories of activities requiring EIA have also been added. This has resulted in a rather lengthy screening list, with varied parameters (e.g. type of activity, location and threshold) being used to screen initiatives. In this context, we concur with Alberts et al.'s (2023, p. 207) suggestion that 'the more detailed and prescriptive a screening system becomes, the more complexity is introduced'. An example of where discretion in EA is possible and makes sense are projects borne from and consistent with a higher tier plan or programme previously subjected to SEA – referred to as 'derived projects' in Australia (Bond et al. 2014; Pope et al. 2018). Even if a full EIA was required by law, derived projects could be exempted from full EIAs (Pope et al. 2018) or be required to operationalise the mitigation and monitoring plans developed during

SEA (Matome and Mulale 2023). The main argument is that 'efficiency and integrated thinking is better attained through empowering officials to exercise sound judgement rather than through overly prescriptive legislation' (Bond et al. 2014, p. 50) albeit such an approach may encourage inconsistency in practice and proliferation of corruption (Bond et al. 2014; Alberts et al. 2023). This is in line with established practices in the Netherlands, where EIA may not be necessary when SEA has been conducted for certain development plans (Fischer 2007).

In addition, EMPs may be prepared specifically for some extractive activities in freehold land. Research by Vanderpost et al. (2011) showed that freehold land in Botswana is significantly degraded due to environmental mismanagement, occurring as a consequence of overstocking and poor management (Vanderpost et al. 2011; Mulale et al. 2014). However, the establishment of freehold farms under the 1975 tribal grazing land policy was based on the desire to curb environmental degradation and the belief that owners shall be responsible and as a consequence establish good range management (e.g. rotational grazing; see, e.g., Mulale et al. 2014). Therefore, EMPs may encourage degradation, particularly since it was shown that freehold landowners tend to be less keen on ensuring environmental protection (Vanderpost et al. 2011; Mulale et al. 2014).

A key issue with only requiring EMPs for some development is that they are outcome-oriented tools which often focus on mitigating or compensating only for adverse environmental effects, and also on outlining monitoring measures (DEA 2012). Further, unlike EIA and SEA, EMPs do not typically involve impact evaluation, albeit it might be used (in an expert-driven process). If that is the case, checklists and matrices are used, referring to a narrow set of key environmental aspects. Evidence from the application of outcome-oriented compensation-based practices in Germany and the USA, however, suggests that they typically involve quantitative modelling and can become quite costly, as paying for compensation is likely to be more expensive than avoiding impacts in the first place (Hanusch and Fischer 2011; Fischer 2023a). In addition, due to their late and reactive initiation and poor influence over decisions as well as their strong focus on mitigation and compensation, outcome-based tools are not adequate for pro-actively tackling environmental problems (Fischer 2022, 2023a).

EIA and SEA are designed (conceptually at least) in a way that they exert influence on the decision-making process. They aim at re-orienting decision-making towards environmentally sensitive options through, for example, the modification/withdrawal of environmentally harmful components (Pope et al. 2018; Fischer and Retief 2021; Fischer 2022; Matome 2023b). Therefore, 'it is clearly better (and cheaper) to

avoid negative impacts before compensating for them by choosing less environmentally harmful development options before the concrete design of a particular development is attempted' (Fischer 2023a, p. 236).

In Botswana, the duration for posting statements relating to the project on publicly accessible media and the duration for reviewing EA statements have been reduced (see above). Setting stricter time frames for EA processes has also been attempted in South Africa, even though here review processes for most EAs were already within the newly stipulated 2-week period (Alberts et al. 2022, 2023). Internationally, public participation during EA is often said to lead to an increase in project costs and timelines and is therefore frequently approached for simplification (Fonseca et al. 2017; Fonseca 2023; González and Sobrini 2023). However, in the context of Botswana, changes have led to a reduction in the available time (as per the rules in use), meaning that attendance – which is a weak point of the public participation process in Botswana, anyway (Mathope and Toteng 2015; Matome 2024), is probably going to be compromised further.

It has also been established that the provisions which identified EAs as public documents which must be placed in the public domain are no longer available. In the professional literature, there is some consensus that effective EA systems must ensure access to relevant information (Mathope and Toteng 2015; Sandham et al. 2020). Placing approved EA statements in the public domain is critical to enable the public to be informed about the proposed initiative and its environmental impacts; this can facilitate public buy-in and ownership of the initiative as well as ease regulatory monitoring, particularly if the public is engaged and provides an early warning system (Arts et al., 2012; Mathope and Toteng 2015). Here, by reducing time allocated to public participation in EA and project, programme, plan and policy processes, proponents may disregard commitments made during EA particularly since regulatory monitoring in Botswana is poor (Tshwene-Mauchaza 2015; Makaba and Munyati 2018; Matome 2023b, 2024). Ultimately, EAs may fail to contribute to environmental protection and to safeguarding of public health.

Likewise, the duration for reviewing, for example, the terms of reference (TORs) and scoping reports have shrunk considerably. However, reducing the time for the review of the TOR and scoping report is likely to be counterproductive, particularly since these stages are often performed poorly – thus requiring rewriting and working in modifications of, for example, the stakeholder analysis and public consultation plans (Mathope and Toteng 2015; Makaba and Munyati 2018; Matome 2024). Under strict time constraints and growing pressure, resulting from the expanded list of activities requiring EA, such problems could go unidentified and EA report quality may be compromised further.

Public participation during the preparation of EMPs is optional, and EMPs may be approved without having undergone public review. However, experience with project EIAs prepared in secrecy (by the environmental impact special committee) suggests that they tend to have poor report quality, undermine public health and democracy, threaten sustainable livelihoods and frequently fail before the courts (Tshwene-Mauchaza 2015). EMPs may accordingly prolong (rather than reduce) project timelines as an effect of public resistance and subsequent judicial processes, implying that this attempt may counteract the effort to reduce the duration of planning consent procedures.

New environmental management tools have been added, bringing with them possible duplication of effort with existing environmental management tools. For instance, the mandates of (1) waste management plans, rehabilitation plans and EMPs and (2) strategic-level EMPs and SEA are blurred. Similarly to what was suggested by Alberts et al. (2023) with regard to concurrent strategic tools in South Africa, the existence of various environmental protection instruments in Botswana can be confusing and become overly complicated, therefore demanding some form of streamlining. Accordingly, all specialist plans could be subsumed into EMPs, and the need for EMPs at strategic levels could be dropped. Consequently, only three tools may remain – EIA for projects, SEA for PPPs and EMPs for derived proposals or initiatives which do not qualify for a full EIA due to their size and/or inherent environmental friendliness. This is similar to current developments elsewhere. In Spain, for example, simplified EAs are prepared for solar photovoltaic projects with an energy output between 50 and 150 MW and located outside protected areas (González and Sobrini 2023). This approach is supposed to facilitate the faster development of low carbon energy projects. However, with regard to the adequate consideration of other environmental aspects, this has been said to come with challenges.

4.3. Implications of EA simplification interventions on EA practice in Botswana

EA simplification interventions undertaken in Botswana are regarded as advancing limitations in EA report quality. Areas which were previously done well (e.g. connected to the description of proposed initiatives, baseline description, public participation and monitoring) are now becoming problematic as reviewers focus on administrative components rather than on substance. This is said to be connected with a reduced time for the review of EAs, delayed deployment of private EA quality reviewers and an increased workload for available government reviewers. This problem has also been observed elsewhere, for example in Brazilian EIA practice. Here, it was suggested that

institutions should be strengthened through better budgetary and human resources (Fonseca et al. 2017; Fonseca and Rodrigues 2017).

In addition, there are also concerns that newly appointed government reviewers tend not to possess adequate knowledge regarding EA. In this context, staff often require some level of capacity building and training to 'fit in', but rarely do they get it due to financial and logistical bottlenecks (Makaba and Munyati 2018). The result has been some very slow EA review processes, as the work of new reviewers has to be double checked (see also Mathope and Toteng 2015) and EA reports have emerged that fail critical components, such as identifying links and impacts on areas of ecological significance and cumulative effects assessment (Matome and Mulale 2023).

These results are consistent with experiences elsewhere. For example, evidence from South Africa (Alberts et al. 2021, 2023) and the Netherlands (Arts and de Vries 2023) suggest that EA report quality has declined since the introduction of simplification interventions. This would suggest that an enhanced transactive effectiveness may not necessarily translate into increased quality of EA practice (see also Enriquez-de-Salamanca 2021; Alberts et al. 2022), meaning that whilst attempting to simplify EA, governments must also consider the extent to which available human resources can cope. In Brazil, for example, a new department focusing exclusively on reviewing simplified EAs was established to strengthen available human resources (Fonseca and Rodrigues 2017).

If the duration for EA processes is shortened and available human capacity is not strengthened beforehand, as is the case in Botswana, available reviewers are likely to be overworked. However, a poor work environment (e.g. comparatively low salaries offered by the government) has been specified as impeding the retention of skilled human power in the public sector (Bakokonyane and No 2021). Some commentators have also suggested that the lucrative private sector (mainly consulting) will attract most of the highly skilled and experienced public sector officials (Mpotokwane and Keatimilwe 2003). On the other hand, theory-focused higher education and professional training are blamed for the poor quality of university graduates (Bakokonyane and No 2021).

These results imply that the Government of Botswana's failure to improve the employment conditions and human resource management practices in the public sector continues to compromise its ability to retain quality employees. However, these are needed for effective public service delivery. With the advent of private EA quality reviewers, the competent authority and other technical departments will likely lose most of their employees, particularly if the conditions of service (i.e. workload, payments/salaries) do not improve.

In addition, there is an increase in the number of proposals submitted for screening and in the number of EAs conducted. This is likely owing to the expanded list of activities requiring EA and the increased number of environmental management tools. This is contrary to evidence in the international literature where simplification efforts resulted in significant reductions in the number of EAs being prepared. Prior to simplification in Canada, about 4,500 EAs were initiated annually; however, during post-reform, an average of only 13 new EAs are initiated annually (Noble 2023). This suggests that simplification efforts in Botswana may not be contributing to reductions in the resource demands for undertaking EAs but are instead expanding them. In this context, the competent national authority for EAs may be said to be 'doing more with less'; however, how this situation is impacting upon the quality and effectiveness of EA practice in the country remains to be discovered through the review of EA practice cases.

5. Conclusion and way forward

EA, as currently implemented in Botswana, by and large fails to add value to decision-making and also fails to convince proponents and other stakeholders of its value. However, rather than tackling current problems, current simplification efforts risk a further deterioration of practices.

Concerns over perceived high transaction costs and time requirements for EAs (responsible for the widely held perspective that EAs are detrimental to investment and development) have led to a desire for the Government of Botswana to simplify EAs. Similarly to the observations by Kørnøv and Lyhne (2023) for Denmark, in Botswana, reasons for EA simplification are linked to a desire for 'increased efficiency' (measured in terms of cost and time). However, some simplification efforts (e.g. provision of templates for rehabilitation plans, defining the extent of impacts evaluation during SEA, improved clarity) aim at an 'increased effectiveness and quality' and 'reduced complexity'. Consequently, current simplification measures are largely administrative (e.g. narrower scope of EA, weakened timelines for public participation and EA review). Also, regulated procedures for rehabilitation plans have been introduced along with lists of mandatory issues for impact evaluation in SEA.

In Botswana, EA simplification thus aims at 'regulatory simplification', giving effect to both administrative (focused on increased process efficiency and reduced complexities) and praxis simplification (focused on increased effectiveness and process quality). These two aspects may be used in conceptualisation of EA simplification efforts elsewhere, too.

The value of environmental assessment lays on its capacity to bring environmental issues to the forefront, provide a forum for engaging with all

affected stakeholders, and effectively integrate environmental considerations into decision-making for environmental protection and sustainable development' (González and Sobrini 2023, p. 193). Unfortunately, some simplification interventions currently underway in Botswana compromise public participation, in particular on the basis of reduced access to information and timescales. This threatens the integrated consideration of sustainability issues. The extent of issues covered is reduced, and full EIAs are at times replaced with management plans aimed at mitigating adverse environmental effects or rehabilitating affected areas.

In conclusion, EA simplification in Botswana can be interpreted as leading to an erosion of the benefits associated with EA (Bond et al. 2014). Consequently, EA's capacity to result in environmental protection and sustainable development has become questionable. Whilst the outcome-based EMP tool can play an important role in protecting the environment, it should be firmly connected and tiered with EIA and SEA.

Whilst this study offers an insight into simplification interventions in Botswana, implications of are based on stakeholder perspectives. Although stakeholder perspectives offer a valuable insight into EA practice (Matome 2024), they are subjective. In this context, it is recommended that future studies in Botswana and elsewhere should focus on proving the benefits of having EAs (Fischer et al. 2023), and on comparing the quality and effectiveness of simplified EAs with ordinary EAs. In addition, they should evaluate the quality of EAs undertaken before and after simplification, noting any considerable changes (see, e.g., Enriquez-de-Salamanca 2021). This is of great importance as EAs are context specific, implying that experiences elsewhere may not be applicable to other jurisdictions. Even experiences with simplification in a single jurisdiction, for example, in South Africa, may differ across sectors (see, e.g., Sandham et al. 2013, 2020; Alberts et al. 2021), implying that understanding simplification within operational contexts is critical to increase understanding.

Notes

1. Elsevier's abstract and citation database.
2. DEA (2011: Section 64) requires that EAPs declare any conflict of interest. This requirement now also extends to private EA reviewers (DEA 2020: 66.3), with a penalty for those found guilty of engaging in practice with an undisclosed conflict of interest (see Table 1).

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ORCID

Gorata Kingsley Matome  <http://orcid.org/0000-0002-6513-9041>

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