

The quality of Botswana's environmental protection regulatory framework.

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Abstract

This paper explores why Botswana's environmental protection regulatory framework is failing to stem environmental deterioration. Based on the observation that such deterioration persists despite the fact that there is a framework in place, the discussion draws from experience with successful environmental protection regulatory frameworks across the world to establish that successful environmental protection regulatory frameworks incorporate numerical quality and ecological standards, a command and control approach with context-sensitive alternatives to account for the approach's limitations, and credible enforcement mechanisms. Following this, the paper measures the extent to which Botswana's environmental protection regulatory framework incorporates these elements and identifies that the reason why the framework has failed to stem environmental deterioration is that it does not adequately incorporate these qualities and proposes how this could be addressed going ahead.

Key words: Botswana; environmental protection; regulation; standards; enforcement

The Quality of Botswana's Environmental Protection Regulatory Framework

INTRODUCTION

In spite of the fact that Botswana is home to some of the most sensitive and endangered environmental phenomena in the world, the country's most recent, and eleventh, National Development Plan, which purports to guide the overall development of the country and contains Government strategies over the lifespan of the Plan proclaims that the country's environmental protection regulatory framework has not stalled environmental deterioration to acceptable levels.¹ While the conclusion is accurate, it is one arrived at using a piecemeal and uncoordinated approach to establishing why the country has failed to stall deterioration over the period covered by the last Plan. And so, considering that the interconnectedness of the environment and shared ownership of the environment are now appreciated and celebrated on a global level, making it of global import what happens to the environment of any one state, especially one with an environment as sensitive as Botswana's, this paper explores, in more coordinated fashion, why the country's environmental protection regulatory framework has not stalled environmental deterioration. In looking to do so, the paper begins from the premise that the existence of an environmental protection regulatory framework, while it may be failing to stall environmental deterioration, indicates that the problem lies in the constitution and quality of the framework. Based on this, the paper looks to assess the quality of the country's environmental protection regulatory framework by first, establishing what it takes to craft a successful environmental protection regulatory framework and second, using this to assess the quality of Botswana's environmental protection regulatory framework and consequently, its capacity to stall environmental deterioration to acceptable levels.

ESTABLISHING AN ASSESSMENT FRAMEWORK

In looking to establish what it takes to craft a successful environmental protection regulatory framework, it is useful to begin by noting that the movement toward such frameworks in a coordinated manner² began in earnest after agreement to the Stockholm Declaration which emerged following the United Nations Conference on the Human Environment in 1972³, and gathered momentum following agreement to the Rio Declaration which emerged following the United Nations Conference on Environment and Development in 1992.⁴ Signatory states

¹ See, Ministry of Finance and Development Planning "Republic of Botswana, National Development Plan 11 (April 2017 – March 2023)" (2016) 11, 7.5. M Wiston "Commentary: Status of Air Pollution in Botswana and Significance to Air Quality and Human Health" (2017) 15/7 *Journal of Health and Pollution* 8. On the state of the environment, see, K Jefferis and B Kenewendo "Botswana Country Overview, 2012-2013" available at: <<http://econconsult.co.bw/tempex/BOTSWANA%20COUNTRY%20&%20ECONOMIC%20OVERVIEW%202012.pdf>> (last accessed 23 January 2019).

² JF McEldowney and S McEldowney *Environmental Law and Regulation* (2001, Blackstone Press) at 6. R Baldwin, M Cave, and M Lodge *Understanding Regulation* (2nd ed, 2012, Oxford University Press) at 40-49.

³ UN General Assembly, United Nations Conference on the Human Environment, 15 December 1972, A/RES/2994, available at: <https://www.refworld.org/docid/3b00f1c840.html> [accessed 22 August 2019]

⁴ UN Doc. A/CONF.151/26 (vol. I); 31 ILM 874 (1992).

to these agreements progressively worked to protect the environment using environmental protection regulatory frameworks at the state level.

Expectedly, early versions of states' environmental protection regulatory frameworks assumed different forms reflective of particular states' circumstances and preferences. As time passed and more frameworks emerged however, the initial differences in the approaches adopted to constructing these environmental protection regulatory frameworks gave way to convergence in the approach to crafting such frameworks.⁵ And, importantly for the present purpose, in the modern world such convergence makes it possible to make three broad observations about successful environmental protection regulatory frameworks which can be relied on to serves as objective indicators of what it takes to craft a successful regulatory framework.

First, the realization over time that environmental protection regulatory frameworks have to balance the pursuit of environmental protection against the competing pursuit of economic development and social development has led to regulatory frameworks being based on sustainable development analyses which look to find a sustainable balance among these three competing interests.⁶ Because such a balance is best achieved based on physical and social science knowledge, in more recent times these sustainable development analyses have grown to be informed by sustainable development indicators, which are collectively established statistical values arrived at based on physical and social science knowledge that can provide early warnings to environmental setbacks.⁷ The result is that in the regulation of media such as air, land or water successful regulatory frameworks rely on sustainable development analyses informed by sustainable development indicators to formulate baselines which indicate the extent to which different hazardous substances can be sustainably deposited into air, land or water.⁸ These baselines become numerical quality standards relied on to formulate more piecemeal standards such as technological and emission standards which regulate quantities of hazardous substances that actors in the state can emit into air, land, and water.⁹ In much the same way, successful regulatory frameworks rely on sustainable development analyses informed by sustainable development indicators to establish baselines indicative of the extent to which species of flora and fauna can sustainably be exploited. These baselines are subsequently relied on to craft more piecemeal standards that regulate other issues central to the protection of flora and fauna such as species of flora and fauna that should be protected, controlled, culled, as well as laws governing when tourism or hunting seasons begin.¹⁰

Second and rooted in the realisation that regulation based on the common law and contract is costly and more reactive than proactive, which is not ideal in environmental protection, successful environmental

⁵ Baldwin, Cave, and Lodge *Understanding Regulation* above at note 2, at 37-8. McEldowney *Environmental Law and Regulation* above at note 2, at 3. F Giner "Regulation and Standards, Monitoring, Inspection, Compliance, and Enforcement" available at: <<http://siteresources.worldbank.org/INTRANETENVIRONMENT/Resources/GuidanceNoteonEnvironmentalRegulationandStandardsupdate.pdf>> (last accessed 9 January 2019). OECD "Reviews of Regulatory Reform: Regulatory Policies in OECD Countries" (2002) available at: <<https://www.oecd.org/gov/regulatory-policy/35260489.pdf>> (last accessed 9 January 2019).

⁶ McEldowney *Environmental Law and Regulation* above at note 2, at 3, 10, 12.

⁷ DESA of the United Nations "Indicators of Sustainable Development: Guidelines and Methodologies" (2007) available at: <<https://sustainabledevelopment.un.org/content/documents/guidelines.pdf>> (last accessed 25 August 2019).

⁸ McEldowney *Environmental Law and Regulation* above at note 2, 5, 11.

⁹ W Howarth "The Progression Towards Ecological Quality Standards" (2006) 18/1 *Journal of Environmental Law* 3. S Bell, D McGillivray, and O Pedersen *Environmental Law* (8th ed, 2013, Oxford University Press).

¹⁰ McEldowney *Environmental Law and Regulation* above at note at 2, 3-6, 36-38, 41-42.

protection regulatory frameworks commonly adopt a command and control approach to regulation.¹¹ Some central qualities of this command and control approach are that, it utilizes systems of prior authorisation before undertaking actions with predictable environmental impacts. It also grants regulators extensive inspection powers of entry without warrant to perform their duties. Preventing such entry is widely criminalized. In addition, command and control approaches also afford regulators the opportunity to use a mix of criminal and/or civil liability to bring parties into compliance with the law. And, these laws commonly empower regulators to compel an infringing party to clean up the harm caused. Importantly though, while successful environmental protection regulatory frameworks adopt this command and control approach, it has been acknowledged over time that the success of this approach depends on unpredictable and inconsistent variables such as, the regulator's willpower, material or institutional limitations of organisations, the psychology and professional backgrounds of those charged with regulating, and massive investments of capital resources.¹² And so, securing the success of a command and control framework is contingent on ensuring that there is a deliberate and centralized and coordinated framework which also relies on context sensitive alternative approaches such as economic instruments, self-regulation, and environmental agreements¹³ to account for the limitations with the command and control framework.¹⁴

Third, successful environmental protection regulatory frameworks commonly feature potent enforcement mechanisms which are typically headed by centralized environmental protection agencies.¹⁵ This centralisation places enforcement in the public domain in a way that lessens the likelihood of the capture of regulators by regulated interests which is a reference to those instances where self-interested regulators look to advance the interests of regulated entities rather than those of the public at large.¹⁶ Centralization also allows the regulator to determine, based on an assessment of the overall environmental good to be attained, when to waive dogmatic enforcement so that alternatives to the command and control approach may be pursued. Separately, and in deference to complexities encountered in regulating environmental deterioration, such as evidential burdens, prosecution problems, views of environmental crimes, the potency of successful environmental protection regulatory frameworks is also secured through the turn to responsive enforcement.¹⁷ This is an approach to enforcement whereby enforcement efforts are based on a range of sanctions which extend from

¹¹ S Elworthy and J Holder *Environmental Protection: Text and Materials* (1997, Butterworths) 3, 299. McEldowney *Environmental Law and Regulation* above at note 2, at 7-9, 18-19. Baldwin, Cave, and Lodge *Understanding Regulation* above at note 2, at 106.

¹² Elworthy and Holder *Environmental Protection*, above at note 11 at 299. J Dikgang and M Visser "Behavioural Response to Plastic Bag Legislation in Botswana" *Environment for Development Discussion Paper Series* (May 2010), available at: <<http://www.rff.org/files/sharepoint/WorkImages/Download/EfD-DP-10-13.pdf>> (last accessed 14 January 2019). The Southern African Institute for Environmental Assessment *SADC Environmental Legislation Handbook 2012* "Botswana" 67, available at: <http://saiea.com/dbsa_handbook_update09/pdf/4Botswana09.pdf> (last accessed 14 January 2019).

¹³ Bell, McGillivray and Pedersen *Environmental Law*, above at note 9. DH Cole and PZ Grossman "When is Command and Control Efficient? Institutions, Technology, and the Comparative Efficiency of Alternative Regulatory Regimes for Environmental Protection" (1999) *Wisconsin Law Review* 887. E Fisher, P Pascual, and W Wagner "Understanding Environmental Models in Their Legal and Regulatory Context" (2010) 22 *Journal of Environmental Law* 251. A Ogus "Nudging and Rectifying: The Use of Fiscal Instruments for Regulatory Purposes" (2006) *Legal Studies* 245. R Macrory "Regulating in a Risky Environment" (2001) 54 *Current Legal Problems* 619. Bell, McGillivray and Pedersen *Environmental Law*, above at note 9. N Gunningham and D Sinclair "Designing Smart Regulation" (1998) available at: <<http://www.oecd.org/environment/outreach/33947759.pdf>> (last accessed 9 January 2019).

¹⁴ Elworthy and Holder *Environmental Protection*, above at note 11 at 299.

¹⁵ Bell, McGillivray and Pedersen *Environmental Law*, above at note 9. JA Lofton "The Impact of Cultural Values and Attitudes on Social Regulation" (2001) *Environmental Liability* 167. Baldwin, Cave, and Lodge *Understanding Regulation* above at note 2, 227-295. A Ogus and C Abbott "Sanctions for Pollution: Do We Have the Right Regime" (2002) 14/3 *Journal of Environmental Law* 281. E Couzens "Enforcement of Environmental Law: Good Practices from Africa, Central Asia, ASEAN Countries and China" (2014) available at: <<https://wedocs.unep.org/bitstream/handle/20.500.11822/9968/enforcement-environmental-laws.pdf?sequence=1&isAllowed=y>> (last accessed 9 January 2019).

¹⁶ Baldwin, Cave, and Lodge *Understanding Regulation* above at note 2, 43-45, 107.

¹⁷ I Ayres and J Braithwaite *Responsive Regulation* (1992, Oxford) 25. Baldwin, Cave, and Lodge *Understanding Regulation* above at note 2, 259.

persuasion and warnings at the onset, with the turn to civil penalties, criminal penalties, license suspensions, and then license revocations following as appropriate.¹⁸ In addition to centralisation and responsive enforcement, the potency of successful enforcement mechanisms is also secured by ensuring that there is public participation. It is well accepted by now that there are three pillars to public participation, access to information, actual participation, and access to justice.¹⁹ Opportunities for participation allow the public to enforce laws by empowering them to leverage the threat of bringing adjudicatory action against an actor causing harm to get that actor to comply with laws.²⁰

MEASURING BOTSWANA'S FRAMEWORK AGAINST THE ASSESSMENT FRAMEWORK

In light of the preceding discussion which established the qualities exhibited by successful regulatory frameworks, this section considers why Botswana's environmental protection regulatory framework, constituted of legislative provisions in environmental laws, other laws with environmental protection implications, environmental policies, and all relevant institutions, fails to stall environmental deterioration to acceptable levels. It does so by measuring the extent to which the framework incorporates numerical quality and ecological standards, a command and control approach with alternatives, and a potent enforcement mechanism.

numerical quality and ecological standards

While it is well established by now that successful environmental protection regulatory frameworks are based on sustainable development analyses informed by sustainable development indicators which lead to numerical air, land and water quality standards as well as numerical ecological standards for flora and fauna,²¹ Botswana's environmental protection regulatory framework is not based on such analyses and standards. To illustrate, most prominent air, land, and water laws such as the Atmospheric Pollution (Prevention) Act,²² the Waste Management Act,²³ the Forest Act²⁴ make reference to what are essentially numerical quality standards but are not based on these standards.²⁵ Similarly, laws regulating flora and fauna, such as the Wildlife Conservation and Nature Protection Act²⁶ and the Fish Protection Act²⁷, Fish Protection Regulations²⁸, are not based on numerical ecological standards.²⁹

¹⁸ Baldwin, Cave, and Lodge *Understanding Regulation* above at note 2, 259.

¹⁹ J Newig "Does Public Participation in Environmental Decisions Lead to Improved Environmental Quality? Towards An Analytical Framework Communication, Cooperation, Participation" (2007) 1/1 *International Journal of Sustainability Communication* 51-71, available at: <<https://nbn-resolving.org/urn:nbn:de:0168-ssoar-431965>> last accessed 14 January 2019). However, the utility of participation to enforcement has been questioned by RA Irvin and J Stansbury "Citizen Participation in Decision Making: Is It Worth the Effort?" (2004) 64/1 *Public Administration Review* 55.

²⁰ B Maripe "Development and the Balancing of Interests in Environmental Law: The Case of Botswana" in M Faure and W du Plessis (eds) *The Balancing of Interests in Environmental Law in Africa* (2011, ABC Press) 49 at 63-66.

²¹ Ministry of Finance and Development Planning *National Development Plan* above at note 1 at 7.15.

²² Cap 65:03. See section 15.

²³ Cap 65:06. Section 6 (1). Article 10 (2) of the Basel Convention which is domesticated in Schedule 1 of the Act.

²⁴ Cap 38:03. Section 11.

²⁵ Id *National Development Plan* at 7., 7.2.4., 7.51-7.52., 7.68. Maripe *Balancing of Interests*, above at note 20 at 60. Institute for Environmental Assessment *Handbook*, above at note 12. O Koboto, *Reform of Environmental Laws in Botswana: The Need for an Environmental Framework Act* (2010) LLM Thesis, at 34, available at: <https://etd.uwc.ac.za/bitstream/handle/11394/3052/Koboto_LLM_2010.pdf?sequence=1&isAllowed=y> (last accessed 21 January 2019).

²⁶ Cap 38:01.

²⁷ Cap 38:04.

Interestingly though, the fact that the regulatory framework is not based on these analyses and resulting standards has not precluded the turn to corollary and more piecemeal standards to guide law-making. For instance, section 15 (b) of the Atmospheric Pollution (Prevention) Control Act³⁰ inexplicably makes reference to technology and emission standards despite the absence of numerical quality air standards. Similarly, section 32 (2) of the Wildlife Conservation and Nature Protection Act³¹ provides that the Director may consult with appropriate local authorities and land boards in determining the number of animals of each species, or of a particular sex, that may be hunted during any season. The same holds true in terms of the Forest Act,³² which authorizes the President to declare any land forest land and empowers the Minister to declare some trees protected in consultation with land boards or private land owners.³³

Certainly, nothing precludes anyone granted discretion to craft these corollary standards from doing so based on sustainable development analyses informed by sustainable development indicators. However, experience with successful regulatory frameworks suggests that this is far from the ideal. And the government effectively acknowledged this when, in the build-up to the Environmental Assessment Act of 2011, it looked to reconceive the Department of Environmental Affairs as a statutory institution tasked with, *inter alia*, coordinating the formulation and implementation of environment friendly policies, legislation, programmes and projects to ensure that the short, medium and long-term impacts on the natural resources and environmental capital of the country are at least neutral and at best highly beneficial as well as ensuring that the country's environment and natural resources are managed according to nationally and internationally acceptable scientific principles and coordinating environmental research and development efforts between all interested parties and initiating new research and demonstration projects where gaps exist.³⁴ This statutorily created formulation of the Department did not materialize however,³⁵ and as the most recent National Development Plan alludes to, by 2017 the framework remained deficient in this respect.³⁶

command, control, and context sensitive alternative approaches

A basic appraisal of Botswana's environmental protection regulatory framework points to four features of the framework which suggest that it is based on a command and control approach.³⁷ First, major laws that form part of the environmental protection regulatory framework such as the Fire Service Act,³⁸ the Wildlife Conservation and Nature Protection Act³⁹ and the Tribal Land Act⁴⁰ carry provisions styled as commands, with controls

²⁸ Statutory Instrument 16 of 2016.

²⁹ See Statistics Botswana "Botswana Environmental Statistics 2016" (206) available at: <http://www.statsbots.org/bw/sites/default/files/publications/BOTSWANA%20ENVIRONMENT%20STATISTICS%20REPORT%202016....pdf> (last accessed 22 August 2019).

³⁰ See section 15 (b). See however, Wiston *Status of Air Pollution in Botswana*, above at note 1 at 11. Maripe *Balancing of Interests*, above at note 20 at 58-59. Also see, Ministry of Finance and Development Planning *National Development Plan* above at note 1.

³¹ Cap 38:01.

³² Cap 38:03, Part III.

³³ Section 11.

³⁴ Institute for Environmental Assessment *Handbook*, above at note 12.

³⁵ Section 2 of the Environmental Assessment Act recognises the Department as a 'competent authority'.

³⁶ See *National Development Plan* on Chemicals and Waste Management, (at 7.72-7.73) and Species Management, (at 7.76).

³⁷ NM Moleele and T Ntsabane "Environmental Issues and Management in Botswana: Have the National Conservation Plans Worked?" (2002) 5 *OSSREA* 1 at 12-17.

³⁸ Cap 40:04. See section 12.

³⁹ See section 11.

⁴⁰ Cap 32:02. See section 39.

provided where commands are not followed.⁴¹ Second, several laws which form part of Botswana's environmental protection regulatory framework require citizens and any actors in Botswana to obtain prior authorisation from regulators before conducting any activities that may cause environmental harm.⁴² These laws give regulators extensive discretion to grant permission, attach conditions to the granting of permission, or to not grant permission entirely.⁴³ Third, several laws which form part of Botswana's environmental protection regulatory framework grant regulators extensive powers of inspection and, across these laws, obstructing an official performing his/her duties or denying the official entry is criminalized.⁴⁴ Fourth, laws which form part of the framework afford regulators the opportunity to use a mix of criminal and, or, civil liability penalties to bring parties into compliance with the law. For instance, section 22 of the Forest Act provides that 'nothing contained in this Act shall abrogate from or interfere with the right of the State or of any person to sue for and recover damages, or relief against injury, caused by a forest offence.'⁴⁵ In addition, these laws commonly empower regulators to compel an infringing party to clean up the harm caused.⁴⁶

Importantly though, while successive national budgets⁴⁷ point to Botswana's financial commitment to regulating environmental protection based on a command and control approach, there is not enough done to account for weaknesses with this approach. For instance, while it is well established that these weaknesses mean that securing the success of a command and control framework is contingent on ensuring that there is a deliberate and centralized and coordinated framework, in Botswana there is no framework environmental legislation to coordinate regulatory efforts. Instead, a series of commands and controls occurs in several laws which are not coordinated. In the same way, there is also no centralization and coordination of the command and control approach at the institutional level. Regulation is loosely led by the Ministry of Environment, Wildlife and Tourism which has created subsidiary institutions such as the Departments of Environmental Affairs, Waste Management and Pollution Control, Forestry and Range Resources, Wildlife and National Parks, Meteorology, Tourism, and the Botswana Tourism Organisation. However, for all its merits, the Ministry is not a regulatory body in the mould of an environmental protection agency. The government acknowledged as much in the build-up to the 2011 Environmental Assessment Act when it sought to empower the Department of Environmental Affairs to preside over environmental protection in an environmental protection agency-style role. However, this did not happen, such that, presently, there is no centralized institution presiding over environmental protection in an environmental protection agency-style role. Separately, while it is known that weaknesses with the command and control approach mean that securing the success of the framework is contingent on having context sensitive alternative approaches in place, Botswana's framework does not offer a coordinated system of alternatives. It merely offers an uncoordinated mix of alternatives to the command and control approach. For

⁴¹ See for example, section 12 of the Fire Act, section 79 of the Wildlife Conservation and Nature Protection Act.

⁴² See, section 13 of the Waste Management Act; section 4 of the Environmental Assessment Act. See Part VII of the Wildlife Conservation and Nature Protection Act.

⁴³ See section 11 of the Town and Country Planning Act Cap 32:09; section 13 (7) of the Waste Management Act; and sections 19 and 20 of the Mines and Minerals Act. See section 11 of the Environmental Assessment Act. Maripe *Balancing of Interests*, above at note 20 at 66.

⁴⁴ See section 4 of the Atmospheric Pollution (Prevention) Control Act; section 41 of the Waste Management Act; section 6 of the Mines and Minerals Act; and sections 3 and 4 of the Environmental Assessment Act.

⁴⁵ Also, see section 42 of the Waste Management Act and section 23 of the Wildlife Conservation and Nature Protection Act.

⁴⁶ See section 16 of the Atmospheric Pollution (Prevention) Control Act and section 44 of the Waste Management Act.

⁴⁷ Botswana Government "Estimated Development Expenditure by Project, 2017-2018" available at: <<http://www.gov.bw/globalassets/amfdp/budget-speeches/2016/development1718.pdf>> (last accessed 22 August 2019). Statistics Botswana *Botswana: Environment Statistics*, above at note 29. Ministry of Finance and Economic Development '2018-2019 Budget Strategy Paper' (2017) available at: <http://www.gov.bw/contentassets/1c5907f150d144fa81fef3f1cbb72b8d/2018-19_draft_budget_strategy_paper.pdf> (last accessed 22 August 2019).

instance, the Department of Primary Health has previously partnered with the Ministry of Local Government to facilitate community-managed waste collection programmes in communities.⁴⁸ Another alternative has been the initiative to encourage the recycling of cans by paying members of the public money when they hand in prescribed quantities of used cans are led by Non-Governmental Organisations such as ‘Collect-a-Can’.⁴⁹ There has also been the turn to the Community Based Natural Resource Management as an alternative. The approach is outlined in the Community Based Natural Resource Management Policy⁵⁰ and is based on recognition of the fact that members of any community share an interest in improving their livelihoods through sustainable management and equitable utilization of natural resources in their environs. And so, the Policy looks to complement the command and control approach by promoting partnerships between all stakeholders to secure wildlife management through participation of communities where possible⁵¹ without recourse to the command and control framework in the first instance. Importantly though, as laudable as the turn to alternatives may be, the reality is that these alternatives have not been crafted based on sustainable development analyses informed by sustainable development indicators and the resultant numerical quality standards and numerical ecological standards. And so, while they may lead to some environmental protection victories, they do not contribute to the realization of sustainable development in meaningful and measurable ways.⁵²

enforcement

To the extent that the third quality of successful environmental protection regulatory frameworks is that they require an effective enforcement approach which lends credibility to the framework, it is interesting to note that Botswana’s environmental protection regulatory framework reflects an appreciation of the important role that enforcement plays in the regulatory effort in three important ways.⁵³

First, several laws such as the Fire Service Act,⁵⁴ the Wildlife Conservation and Nature Protection Act⁵⁵, and the Tribal Land Act⁵⁶ reflect the turn to a punitive approach. Laws also make reference to a responsive approach to enforcement.⁵⁷ For instance, in terms of the Mines and Minerals Act, if the Minister considers that the holder of a mining lease is using wasteful mining or treatment practices s/he may notify such

⁴⁸ Seanama Conservation Consultancy “Botswana National Report for the United Nations Conference on Sustainable Development (Rio+20)” 23, available at: <<https://sustainabledevelopment.un.org/content/documents/1006National%20Report%20-%20Botswana.pdf>> (last accessed 23 January 2019).

⁴⁹ Dikgang and Visser *Behavioural Response*, above at note 12. Sunday Standard Botswana “Collecting a Can for Money is Back (10 Jun 2013) available at: <<http://www.sundaystandard.info/collecting-can-money-back>> (last accessed 22 January 2019).

⁵⁰ Government of Botswana, Community Based Natural Resource Management Policy Government Paper 2 of 2007.

⁵¹ See Part 3.2.3.

⁵² Bell, McGillivray and Pedersen *Environmental Law*, above at note 9. Cole and Grossman *When is Command and Control Efficient*, above at note 13 at 887. Fisher, Pascual, and Wagner *Understanding Environmental Models*, above at note 13 at 251. Ogun “Nudging” above at note 13 at 245. Bell, McGillivray and Pedersen *Environmental Law*, above at note 9. Gunningham and Sinclair *Designing Smart Regulation* above at note 13. Macrory *Regulating in a Risky Environment*, above at note 13 at 619. Ministry of Finance and Development Planning *National Development Plan* above at note 1 at 7.56. G Hepburn “OECD Report: Alternatives to Traditional Regulation” available at: <<https://www.oecd.org/gov/regulatory-policy/42245468.pdf>> (last accessed 14 January 2019).

⁵³ Institute for Environmental Assessment *Handbook*, above at note 12. MC Kalikawe “Botswana: Integrating Biodiversity into the Tourism Sector” (March 2001) *A presentation made to the UNEP International Workshop on Best practices and Country Case Studies*, available at: <[https://www.cbd.int/doc/nbsap/tourism/BOTSWANA\(Tourism\).pdf](https://www.cbd.int/doc/nbsap/tourism/BOTSWANA(Tourism).pdf)> (last accessed 14 January 2019).

⁵⁴ See section 12.

⁵⁵ See section 79.

⁵⁶ See Part III.

⁵⁷ See sections 84 and 42 of the Mines and Minerals Act. Also see sections 21 and 22 of the Waste Management Act; section 41 of the Wildlife Conservation and National Parks Act Cap 38:01; and section 15 of the Environmental Assessment Act. Bell, McGillivray and Pedersen *Environmental Law*, above at note 9. Lofton *Environmental Liability*, above note 15 at 167.

holder accordingly and require the holder to cease using such practices rather than turn to suspension or revocation of the license.⁵⁸ Second, and as noted before, the Ministry of Environment, Wildlife and Tourism, which is assisted in its work by several subsidiary institutions, is the lead environmental protection institution in the country⁵⁹. Third and due in part to the influence of the international law, Botswana's environmental protection regulatory framework looks to make provision for public participation.⁶⁰ For instance, despite the fact that the law does not constitutionally entrench a right of access to information, the framework provides for access to information in several laws. As an example, section 7 of the Environmental Assessment Act makes reference to *inter alia*, the publication of information on effects and benefits of activities in the mass media using the official languages for a period of not less than 21 days.⁶¹ Separately, the framework provides for participation in several laws. For example, section 32 (2) of the Wildlife Conservation and National Parks Act provides that The Director may, after consultation with the appropriate local authorities and land boards, determine the number of animals of each species, or of a particular sex, that may be hunted during any season in any specified controlled hunting area.⁶² Alternatively, section 7 of the Environmental Assessment Act requires that where activities with environmental impacts are undertaken, meetings with people or communities affected by the intended activities to explain the nature of the activities and their effects should be held.⁶³ Furthermore, while the framework does not provide a constitutional environmental right, it commonly provides for access to justice to people aggrieved by licensing decisions in the legislation⁶⁴ and through the common law of delict⁶⁵.

While this may paint the picture of a potent enforcement framework, in reality, this is hardly the case for three reasons.⁶⁶ First, the fact that laws are not based on sustainable development analyses informed by sustainable development indicators means regulation is on a piecemeal basis with separate laws carrying enforcement provisions and the enforcement of the provisions entrusted to specialist officers whose roles are created under the statutes.⁶⁷ In addition, there is no centralized enforcement institution in place. The closest thing to such an institution is the Ministry of Environment, Wildlife, and Tourism. However, its officials under the several departments have no direct enforcement power but gain that power when they are designated specialist officers in terms of specific legislation. And so, the Ministry as the lead institution has none of the statutory enforcement power that should vest in such an institution if it is to be an effective enforcement institution. For instance, as currently constituted it does not have the sort of statutory power to waive and adopt appropriate methods of enforcement based on shifting circumstances that effective institutions rely on to accommodate the turn to alternatives to the command and control approach which deviate from the simplistic enforcement model but, based on a consideration of numerical quality and ecological standards, lead to more

⁵⁸ Cap 66:01.

⁵⁹ Maripe *Balancing of Interests*, above at note 20 at 62. Institute for Environmental Assessment *Handbook*, above at note 12.

⁶⁰ There is no explicit environmental right in Botswana's Constitution (Chapter 1 of 1966). The rights the public has are derived from other rights such as the right to life, or from the common law environmental rights such as those secured through the law of delict. See, Maripe *Balancing of Interests*, above at note 20 at 54-58. Koboto, *Reform of Environmental Laws in Botswana*, above at note 25 at 25.

⁶¹ See sections 7, 10, 11 of the Environmental Assessment Act. Also see section 9 of the Environmental Assessment Regulations.

⁶² Section 32(2) of the Wildlife Conservation and National Parks Act.

⁶³ See sections 7, 10, 11 of the Environmental Assessment Act and section 9 of the Environmental Assessment Regulations, 2012.

⁶⁴ Section 42, Waste Management Act.

⁶⁵ Section 42, Wildlife Conservation and National Parks Act; section 27, Waste Management Act; regulation 15, Fish Protection Regulations, 2016; CM Fombad and J Pfumorodze, *The Law of Delict in Botswana* (2019, Kluwer International) at 151.

⁶⁶ Moleele and Ntsabane *Environmental Issues and Management in Botswana* above at note 36 at 12-13. Baldwin, Cave, and Lodge *Understanding Regulation* above at note 2, 43-45, 107. See SE Fink "Environmental Law in a Developing Country: Botswana" (2000, LLM Dissertation) at 5, available at: <http://uir.unisa.ac.za/bitstream/handle/10500/16784/dissertation_fink_se.pdf?sequence=1&isAllowed=y> (last accessed 21 January 2019).

⁶⁷ See for example, Fire officers in section 4 of the Fire Act; Wildlife Officers under the Wildlife Conservation and Nature Protection Act; Forest officer in section 2 of the Forest Act; authorised officer under the Waste Management Act.

effective environmental protection outcomes.⁶⁸ Second, the fact that laws are not based on sustainable development analyses informed by sustainable development indicators means that the justification for regulation is not widely disseminated, understood,⁶⁹ or, held in high esteem by people and regulators⁷⁰. This is true even at the highest levels of the enforcement chain where ‘the role of the judiciary in environmental matters does not appear to be as fully developed in Botswana as it might be...It would seem useful for education and training to be undertaken so that the courts will be able to more fully discharge their duties under environmental legislation’.⁷¹ This means regulators are not sufficiently knowledgeable, or concerned, about environmental protection to effectively make use of the range of sanctions that the framework has put in place in order to secure punitive and responsive enforcement. Third, the potency of the enforcement mechanism has been diminished by the fact that the state’s commitment to public participation in environmental protection is questionable, traceable to the fact that the state has made no effort to domesticate the Rio Declaration which is arguably, the foundational global instrument on public participation in environmental protection⁷². This ambivalent attitude to public participation is reflected across national laws which provide for public participation. For instance, section 7 of the Environmental Assessment Act provides for access to information but makes accessing such information difficult unless strict circumstances subsist⁷³. Similarly, while laws such as section 32 (2) of the Wildlife Conservation and National Parks Act provide opportunities for participation, such participation is typically granted at the wide discretion of regulators such that the provision for participation is quite diminished. And, while the framework provides access to justice there has been little effort made to educate the public on their environmental protection rights generally and their right of access to justice in particular.⁷⁴ Where people know that they have access to justice, Botswana law limits statutory access to justice predominantly to those instances where a person is aggrieved by the refusal of a licensing officer or the Director to grant a permit, or by any terms and conditions imposed by them.⁷⁵ And, while people have access to justice rooted in delictual action, courts who have ruled that access to justice is reserved for people who are directly affected by harmful activities and will not be afforded to people acting in the public interest.⁷⁶ This is despite the fact that it is increasingly accepted in different parts of the world that allowing people litigating in the public interest access to court is a critical part of affording people access to justice in environmental matters.⁷⁷

CONCLUSION

⁶⁸ “Botswana: Enhancing Environmental Sustainability in the Implementation of the NDP10 (2010)” available at: <114<https://www.car.org.bw/wp-content/uploads/2016/06/Botswana-Environment-Policy-Note-October2010-final.pdf>> (last accessed 21 January 2019).

⁶⁹ Baldwin, Cave, and Lodge *Understanding Regulation* above at note 2, 43-45, 107.

⁷⁰ Koboto, *Reform of Environmental Laws in Botswana*, above at note 25 at 25. Maripe *Balancing of Interests*, above at note 20 at 63-66. Baldwin, Cave, and Lodge *Understanding Regulation* above at note 2, 43-45, 107.

⁷¹ Botswana *Enhancing Environmental Sustainability*, above at note 68.

⁷² Ministry of Finance and Development Planning *National Development Plan* above at note 1 at 7.6.

⁷³ See, section 12 (b) of the Constitution of Botswana which allows the withholding of information held in confidence. See also the conditions attached to the disclosure of information under section 13 of the Atmospheric Pollution (Prevention) Act; Maripe n (58) 63-6.

⁷⁴ Id *National Development Plan* at 7.11. Maripe *Balancing of Interests*, above at note 20 at 64.

⁷⁵ Section 42, Waste Management Act.

⁷⁶ *Botswana National Front v Attorney General* (1994) BLR 385; *Attorney General v Unity Dow* (1992) BLR 119; *Tsogang Investments (Pty) Ltd v Phoenix Investments* (1989) BLR 512.

⁷⁷ J Newig and O Fritsch, “Environmental Governance: Participatory, Multi-Level-and Effective?” (2009) 19/3 *Environmental Policy and Governance* 197, 200, 205-206.

Convergence in environmental protection regulatory frameworks across the globe has had the effect of highlighting qualities that successful regulatory frameworks exhibit. Using these qualities as a measure, this paper has argued that the fact that Botswana has failed to stall environmental deterioration to acceptable levels is attributable to three reasons. First, Botswana's environmental protection regulatory framework has stalled because it is not based on numerical quality or ecological quality standards for flora, fauna and habitats. Second, Botswana's environmental protection regulatory framework has stalled because, while the framework is based on a command and control approach, this approach is not sufficiently coordinated and centralized, and it is not complemented with alternatives needed to account for the limitations of the command and control approach. Third, Botswana's environmental protection regulatory framework has stalled because it does not provide an adequately empowered enforcement framework that is based on public participation.

In this context, and drawing from experience with regulation across the world, the key to securing a more effective framework lies in the turn to numerical quality and ecological standards, the turn to a coordinated and centralized command and control approach that incorporates varied context sensitive alternatives to the command and control approach, and the turn to a more compelling and centralized approach to enforcement of laws. Following from this, centralization in standard-setting, regulation, and enforcement is essential to securing environmental protection.⁷⁸ And so, the key to securing environmental protection going ahead lies in the turn to framework legislation which would become the leading environmental law and establish an environmental protection agency tasked with formulating numerical quality and ecological standards based on sustainable development analyses informed by sustainable development indicators. These can be used to craft a coordinated and centralized command and control framework complemented by context-sensitive alternatives. The agency would also have enforcement capabilities and lead enforcement efforts using punitive and responsive approaches.

⁷⁸ Id *National Development Plan* at 7.56., 7.64.