

Article 18

Right to a healthy and sustainable environment

Ademola Oluborode Jegede and Pfanelo Lorrain Mamphiswana

1. Women shall have the right to live in a healthy and sustainable environment.
2. States parties shall take all appropriate measures to:
 - (a) ensure greater participation of women in the planning, management and preservation of the environment and the sustainable use of natural resources at all levels;
 - (b) promote research and investment in new and renewable energy sources and appropriate technologies, including information technologies and facilitate women's access to, and participation in their control;
 - (c) protect and enable the development of women's indigenous knowledge systems;
 - (d) regulate the management, processing, storage and disposal of domestic waste;
 - (e) ensure that proper standards are followed for the storage, transportation and disposal of toxic waste.

1 Introduction.....	376
2 Drafting history	378
3 Concepts and linkages	380
3.1 Healthy and sustainable environment.....	381
3.2 Participation	382
3.3 Sustainable use	383
3.4 Renewable energy	384
3.5 Indigenous knowledge systems.....	385
3.6 Domestic and toxic waste	386
4 Nature and scope of state obligations	387
5 Implementation	389
5.1 Constitutional and legislative measures	389
5.2 Administrative measures	393
5.3 Judicial measures	395
5.4 Implementation challenges	396
6 Conclusion.....	397

1 Introduction

Article 18 of the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (Maputo Protocol) is the only provision of a regional human rights instrument in Africa to specifically guarantee women the right to a healthy and sustainable environment. The recognition of a clean and healthy environment as a human right is revealed in article 24 of the African Charter on Human and Peoples' Rights (African Charter) which guarantees to all people 'the right to a general satisfactory environment favourable to their development'.¹ The significance of a clean and healthy environment to support the fulfilment of other rights of women is obvious, yet no treaty expressly guarantees the right to a clean, safe and healthy environment under the auspices of the United Nations (UN). Neither the International Covenant on Civil and Political Rights (ICCPR) nor

1 Article 24.

the International Covenant on Economic Social and Cultural Rights makes express provisions for an environmental right. Nor does the Convention on the Elimination of All Forms of Discrimination against Women have a specific provision on women's right to a healthy and sustainable environment. The United Nations Committee on Economic, Social and Cultural Rights (CESCR Committee) in General Comment 14 affirms that the right to health includes a healthy environment.² Being a General Comment, however, it is not binding; it makes no express reference to women, and it is no substitute for a specifically guaranteed right in a human rights treaty. Similarly, General Recommendation 34 of the UN Committee on the Elimination of Discrimination against Women (CEDAW Committee), in elaborating on the rights of rural women under CEDAW's article 14, affirms the equal right of women in rural areas to participate in environmental decision-making.³

Article 18 is an important provision in that it responds to the real-life challenges of African women relating to a healthy and sustainable environment. In many African societies, women bear a disproportionate share of the impact of environmental challenges on account of their gendered societal role. While there is a paucity of sex-disaggregated data throughout environmental sectors globally,⁴ there is anecdotal evidence to support this observation. About 82 per cent of Africans cook with polluting fuels,⁵ primarily firewood, followed by charcoal, kerosene, dung and coal. It falls on women to use traditional stoves for cooking which result in air pollution.⁶ Women spend an average of 2.1 hours gathering fuel⁷ and about 3 hours daily close to open biomass stoves.⁸ In Africa, women and girls' exposure to household air pollution due to cooking and domestic work was reported as their single greatest health risk.⁹ Also, women in Africa hardly participate in decision-making processes relating to the maintenance of a healthy environment.¹⁰ At the global level, women occupy just one-third of decision-making positions under the United Nations Framework Convention on Climate Change (UNFCCC)¹¹ and the Paris Agreement¹² on climate change.¹³ Women constituted only 29 per cent of the participants at the negotiations of the Paris Agreement at the 21st meeting of the Conference of Parties to the UNFCCC (COP 21).¹⁴ Only 15 per cent of environment ministers globally are women.¹⁵ While these statistics do not necessarily dictate the degree to which gendered environmental concerns

- 2 CESCR General Comment 14: The Right to the Highest Attainable Standard of Health (art 12). Adopted at the Twenty-second Session of the Committee on Economic, Social and Cultural Rights, on 11 August 2000 (Contained in Document E/C.12/2000/4) (CESCR General Comment 14) para 15.
- 3 Committee on the Elimination of Discrimination against Women General Recommendation 34 on the Rights of Rural Women CEDAW/C/GC/34, 4 March 2016, para 12.
- 4 Environment and Gender Index (EGI). 'Women's participation in Global Environmental Decision Making. An EGI Supplemental Report' (2015).
- 5 WHO *Burning opportunity: Clean household energy for health, sustainable development, and wellbeing of women and children* (2016); UN Women 2019 'Progress on the sustainable development goals' *The Gender Snapshot* 2019.
- 6 The World Bank Group *Clean cooking: why it matters* (2019).
- 7 F Lambe et al 'Bringing clean, safe, affordable cooking energy to households across Africa: An agenda for action' (2015), prepared by the Stockholm Environment Institute, Stockholm.
- 8 BD Odo et al 'Women's empowerment and household fuel use in 31 African countries: a cross-sectional analysis of households in the demographic and health survey' (2021) 16 *Environmental Research Letters* 1.
- 9 WHO (n 5).
- 10 OO Ilesanmi 'Women's visibility in decision making processes in Africa – progress, challenges, and way forward' (2018) 3 (38) *Frontiers in Sociology* 1.
- 11 United Nations Framework Convention on Climate Change (1992) ILM (UNFCCC).
- 12 Paris Agreement under the United Nations Framework Convention on Climate Change adopted 30 Nov-11 Dec 2015 at the 21st Sess., Conference of the Parties, FCCC/CP/2015/L.9/Rev.1 (Paris Agreement 2015).
- 13 Economic and Social Council Commission on the Status of Women 'Greater female participation, gender-responsive approaches key for tackling climate change, natural disasters', Speakers stress as women's commission opens session WOM/2213 14 March 2022.
- 14 European Capacity Building Initiatives (ECBI), *Pocket guide to gender equality under the UNFCCC* (ECBI 2018) 9.
- 15 Economic and Social Council Commission on the Status of Women (n 13).

will be taken into account, they reflect the marginalisation of those who bear a disproportionate share of the negative impact of environmental degradation in the decision-making space.

Across the world, women traditional knowledge and role relating to the management and sustainability of environmental resources are often invisible.¹⁶ In Africa, evidence shows that it is hardly utilised to shape the formulation and implementation of environmental policies.¹⁷ In the waste management sector, by 2050, the volume of waste is projected to triple to 516 million tonnes per year across Africa (from 174 million tonnes per year in 2016).¹⁸ Due to the gendered division of household labour, women are more closely associated with the generation and management of domestic waste and are exposed to its risks.¹⁹ In artisanal mining across the African continent, women often carry out potentially hazardous mineral processing in their homes alongside regular domestic activities, putting themselves and their families at risk.²⁰ Yet women are less likely to hold decision-making positions, whether in public policymaking spaces or in the private sector where innovative solutions are sought concerning the management of hazardous chemicals and other waste from domestic and industrial sources.²¹

The focus of article 18 on these lived environmental experiences makes it one of the most significant provisions in the rights regime of women in Africa. Article 18 of the Maputo Protocol addresses issues of significance to the African woman, such as participation in environmental decision-making, energy sources, sustainable use of natural resources, women's indigenous knowledge systems and management of waste.

This chapter discusses article 18 of the Maputo Protocol by profiling its drafting history, and examining its relationship with other treaty provisions, the nature and scope of state obligations and implementation measures as deployed by states. It concludes with recommendations for strengthening the implementation of article 18 of the Maputo Protocol. The chapter is organised into six sections. Following this introduction, section 2 discusses the drafting history of article 18. The third section deals with key concepts in article 18 and its linkages with other treaty rights. Section 4 focuses on state obligations and practices, while section 5 analyses the extent of implementation of article 18. Section 6 presents the conclusion and recommendations.

2 Drafting history

The *travaux préparatoires* on the Maputo Protocol shows that article 18 of the Maputo Protocol derives some inspiration from article 24 of the African Charter, the trendsetter on the right to a healthy environment in Africa.²² Under the general title of environmental rights, article 20 of the Kigali Draft²³ asserts that 'in conformity with article 24 of the African Charter, women shall have the right to live in

16 'Indigenous women's rights in biodiversity conservation and sustainable use' Expert paper prepared by GM Catacora-Vargas, EGM/ENV/EP.21 September 2021; see sec 3.1 of this chapter for discussion of the concept.

17 'UNESCO calls for recognizing African Indigenous knowledge in disaster management' <https://www.unesco.org/en/articles/unesco-calls-recognizing-african-indigenous-knowledge-disaster-management> (accessed 1 November 2022).

18 As above.

19 W Mwangi et al, Domestic solid waste management practices in an informal settlement: A gendered perspective (2021) 4(2) *International Journal of Research and Scholarly Communication* 26.

20 D Buss & B Rutherford 'Gendering women's livelihoods in artisanal and small-scale mining: an introduction' (2020) 54 *Canadian Journal of African Studies/Revue canadienne des études africaines* 1.

21 A Caterbow & J Hausmann 'Women and chemicals: The impact of hazardous chemicals on women (WECF 2016) 11; UNDP 'UNDP Guidance document: Gender and chemicals: Mainstreaming gender into UNDP GEF projects on chemicals and waste' https://procurement-notices.undp.org/view_file.cfm?doc_id=225056 (accessed 23 June 2023).

22 African Charter, art 24.

23 Draft Protocol to the African Charter on Women's Rights, 26th ordinary session of the African Commission on Human and Peoples' Rights 1-15 November 1999 Kigali, Rwanda (Kigali Draft).

a healthy environment'.²⁴ There is little basis for the use of the word 'conformity' as article 24 of the African Charter is not as developed as article 20 of the Kigali Draft; it does not have sub-articles on state measures incorporated under article 20 of the Kigali Draft on environmental rights. However, it is clear from the wording of article 20 that it goes beyond the parameters of the 'parent' provision: its specific intention is to guarantee the rights of women to a healthy environment and impose clear obligations on states. Both of these features are absent from article 24 of the African Charter.

At some of the meetings that preceded the Maputo Protocol's adoption, several amendments were suggested and effected on article 20 of the Kigali Draft. For instance, in 2001, the sub-article 20(a) of the Kigali Draft that urges states to 'involve women in the management of the environment at all levels' was amended to 'ensure a greater participation of women in the planning, management and preservation of the environment at all levels'. The latter is more specific and of clearer focus in its details on different spaces for participation of women in environmental issues. It addresses the exclusion of women by insisting on participation in the planning, management and preservation of the environment. The idea of including women in environmental planning is necessary as it is the most foundational space for environmental decision-making. Also, the expectation that women should participate in conserving the environment is not strange, as reports have shown that women possess traditional knowledge that is useful for that purpose.²⁵

Article 19 of the Nouakchott Draft²⁶ refers to article 24 of the African Charter as an inspiration. It asserts that the right is 'in accordance with article 24 of the African Charter on Human and Peoples' Rights'. But just as it has been observed with the Kigali Draft, article 19 of the Nouakchott Draft is more developed than article 24 of the African Charter. It is, however, not as developed as the current article 18 of the Maputo Protocol. There are some sections of article 18 of the Maputo Protocol that are missing in the Nouakchott Draft. For instance, the Nouakchott Draft provides for 'the right to live in a durable and healthy environment' and makes no mention of a 'sustainable environment'. Article 18 of the Maputo Protocol does not use the word 'durable', rather, it provides for 'the right to a healthy and sustainable environment'. No reason for this change is evident in the drafting history. Unlike the word 'durable', the word 'sustainable' has a known meaning in legal jurisprudence.²⁷ Hence, the term 'sustainable' can apply to differentiate or define the nature of the environment to which every African woman is entitled as a right. Another noticeable difference is that article 19 of the Nouakchott Draft does not require state parties to 'protect and enable the development of women's indigenous knowledge systems', which is covered by article 18(c) of the Maputo Protocol. A similar observation can be made of the Final Draft²⁸ of September 2000, which provides for the right to a healthy and sustainable development in article 18, but lacks a provision for the protection of women's indigenous knowledge system.

24 Kigali Draft (n 23) art 20.

25 YA Aluko 'Women's use of indigenous knowledge for environmental security and sustainable development in Southwest Nigeria' (2018) 9(3) *The International Indigenous Policy Journal* 1; N Wane & DJ Chandler 'African women, cultural knowledge, and environmental education with a focus on Kenya's indigenous women' (2002) 7(1) *Canadian Journal of Environmental Education* 86.

26 Expert Meeting on the Preparation of a Draft Protocol to the African Charter on Human and Peoples' Rights Concerning the Rights of Women, Nouakchott, Islamic Republic of Mauritania, 12-14 April 1997 (Nouakchott Draft).

27 For instance, sustainable development was defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It seeks to reconcile economic development with the protection of social and environmental balance' see Report on the World Commission on Environment and Development- Our Common Future, UN Doc. A/42/427 4 August 1987.

28 Draft Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, CAB/LEG/66.6; final version of 13 September 2000 (Final Draft). Reprinted in MS Nsibirwa 'A brief analysis of the Draft Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women' (2001) 1 *African Human Rights Law Journal* 53-63.

Key amendments were made to the Final Draft of September 2000 by the Expert Meetings of November 2001,²⁹ the Comments by the AUOLC in 2002,³⁰ and the NGO Forum in 2003.³¹ The Expert Meetings adopted sub-article 18(1) and sub-article 18(2)(c) without amendment.³² Sub-article 18(2)(a), however, was altered to read 'ensure a greater participation of women in the planning, management and preservation of the environment at all levels'³³ while sub-article 18(2)(d) was adjusted to read as follows 'ensure that proper standards are followed for the storage, transportation and disposal of toxic waste.'³⁴ The AUOLC in 2002 proposed the rewording of the opening line to read 'women shall have the right to live in an environment that is not harmful to their health or well-being'.³⁵ It then noted that such a suggestion does not cover a 'sustainable environment'.³⁶ The 2003 Draft Protocol to the Maputo Protocol, with comments by NGO,³⁷ featured the right to a healthy and sustainable environment in its article 17, and equally made an amendment to sub-article 17(2)(b) to read as 'promote research and investment into new and renewable energy sources and appropriate technologies and facilitate women's access to and control of them'.³⁸ It also called for the proposed Protocol's provisions to measure with the provisions of CEDAW and general international standards.³⁹ However, article 18 of the Maputo Protocol does not benefit much from CEDAW as the latter lacks a specific provision on the right of women to a sustainable environment.

The right to a healthy and sustainable environment featured in article 18 of the Draft Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (Addis Ababa Draft).⁴⁰ The provision does not only endorse the 2003 provision on the right under the Addis Ababa Draft, with comments by NGO.⁴¹ For the first time, it included a provision on the protection of women's indigenous knowledge system in its sub-article 18(2)(c). It can safely be stated that the Addis Ababa Draft was captured in the current version of article 18 of the Maputo Protocol adopted in 2003.

3 Concepts and linkages

Article 18(1) to (2)(a)-(f) contains key concepts such as a 'healthy and sustainable environment', participation, 'sustainable use of natural resources', 'transition to renewable energies', 'indigenous

29 Report of the Meeting of Experts on the Draft Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, Expt/Prot.Women/Rpt(I), Addis Ababa, Ethiopia, November 2001 (Report of the Meeting of Experts on the Draft Protocol).

30 Comments by African Union Office of the Legal Counsel (AUOLC), CAB/LEG/66.6/Rev.1, 2002 (Comments by the AUOLC).

31 Comments by the NGO Forum (2003): CAB/LEG/66.6/Rev.1 (Comments by the NGO Forum).

32 Report of the Meeting of Experts on the Draft Protocol (n 29) paras 129 & 132.

33 Report of the Meeting of Experts on the Draft Protocol (n 29) para 130.

34 Report of the Meeting of Experts on the Draft Protocol (n 29) para 133.

35 Comments by the AUOLC (n 30) 9.

36 As above.

37 As above.

38 Comments by the NGO Forum (n 31) 17.

39 Draft Protocol to the African Charter of Human and Peoples' Rights on the Rights of Women in Africa, 6 January 2003 Markup from the meeting convened on 4-5 January 2003 in Addis Ababa by the Africa Regional Office and the Law Project of Equality Now & Others.

40 Draft Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, MIN/WOM. RTS/DRAFT.PROT(II)Rev.5, as adopted by the Meeting of Ministers, Addis Ababa, Ethiopia, 28 March 2003 (Addis Ababa Draft).

41 Comments by the AUOLC (n 30).

knowledge systems', 'domestic waste' and 'toxic waste'. The clarification of these concepts and the linkages with other rights is the focus of this section.

3.1 Healthy and sustainable environment

The definition of a 'healthy and sustainable environment' in article 18(1) is problematic. It is similar to article 24 of the African Charter, which Van Der Linde and Louw have termed 'vague and ambiguous'.⁴² They reason that no clear indication is given on the exact meaning of terms such as 'satisfactory' and 'healthy' environment.⁴³ Despite this concern, it is still possible to distil the meaning of the phrase from some of the works of treaty monitoring bodies at the UN and African regional levels. General Comment 14 of the CESCR Committee on the Right to the Highest Attainable Standard of Health⁴⁴ includes a healthy environment as a determinant of health⁴⁵ and addresses itself to healthy occupational and environmental conditions.⁴⁶ In a similar context, the Committee referred to Principle 1 of the Stockholm Declaration of 1972, which states that '[m]an has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being'.⁴⁷

The above position is supported by the African Commission on Human and Peoples' Rights (African Commission) in *SERAC*⁴⁸ which considers article 24 of the African Charter on the right of all peoples to a generally satisfactory environment favourable to their development. In that communication, the African Commission asserts that a generally satisfactory environment connotes 'a clean and safe environment that is closely linked to economic and social rights in so far as the environment affects the quality of life and safety of the individual'.⁴⁹ Although it has no specific section devoted to the right to a healthy environment, the Principles and Guidelines on the Implementation of Economic, Social Cultural Rights in the African Charter on Human and Peoples' Rights reinforces the position.⁵⁰ It presents a healthy environment as a cross-cutting issue to consider by states in implementing a number of rights, including the right to health,⁵¹ the right to education,⁵² the right to housing,⁵³ and the right to water and sanitation.⁵⁴ This signals that article 18(1) of the Maputo Protocol is linked to other socioeconomic rights, such as the right to health under article 14(1), the right to access water under article 15(a) and the right to adequate housing under article 16 of the Maputo Protocol. The common feature of these rights is that they touch on a healthy environment as a precursor to the enjoyment of rights. Some of the issues covered by article 18 of the Maputo Protocol also resonate with article 14 of the Convention on the Elimination of all Forms of Discriminations Against Women (CEDAW), which acknowledges the role of women in development and imposes duties on the state in relation to

42 M van der Linde & L Louw 'Considering the interpretation and implementation of article 24 of the African Charter on Human and Peoples' Rights in light of the *SERAC* communication: recent developments' (2003) 3 *African Human Rights Law Journal* 167.

43 Van der Linde & Louw (n 42) 174.

44 CESCR General Comment 14: The Right to the Highest Attainable Standard of Health (art. 12) Adopted at the Twenty-second Session of the Committee on Economic, Social and Cultural Rights, on 11 August 2000 E/C.12/2000/4.

45 CESCR General Comment 14 (n 44) para 4.

46 CESCR General Comment 14 (n 44) para 11.

47 Declaration of the United Nations Conference on the Human Environment at Stockholm 1972, Principle 1.

48 *Social and Economic Rights Action Center (SERAC) and Another v Nigeria* (2001) AHRLR 60 (ACHPR 2011) (*SERAC*) para 52.

49 As above.

50 Principles and Guidelines on the Implementation of Economic, Social Cultural Rights in the African Charter on Human and Peoples' Rights (ACHPR ECOSOC Principles).

51 ACHPR ECOSOC Principles (n 50) paras 63, 67(j) & (q).

52 ACHPR ECOSOC Principles (n 50) para 71(f)(6).

53 ACHPR ECOSOC Principles (n 50) para 79(p).

54 ACHPR ECOSOC Principles (n 50) para 87.

rural women's rights to development. The pursuit of a healthy environment has also featured in non-binding instruments on sustainable development, including the Beijing Declaration and Platform of Action,⁵⁵ the UN Millennium Declaration,⁵⁶ and the UN Sustainable Development Goals (SDGs).⁵⁷ The UNGA Resolution on 'The Future We Want' acknowledges that a healthy living environment for women should be an important consideration in promoting sustainable development.⁵⁸ Efforts under the UN human rights structure to recognise the right to a healthy environment have yielded a number of resolutions,⁵⁹ the most recent being Resolution 76/75 of 28 July 2022, which recognises the right to a clean, healthy, and sustainable environment as a human right.⁶⁰ However, the foregoing normative development towards the recognition of the right to a healthy environment under the auspices of the UN remains ambitious and does not specifically reference women.

Based on the foregoing, it can be surmised that a healthy and sustainable environment under the Maputo Protocol refers to the right of women to live in an environment – whether domestic or workplace – that supports their well-being and a life of dignity.

3.2 Participation

Article 18(2)(a) of the Maputo Protocol underlines the need to ensure greater participation of women in the planning, management and preservation of the environment and the sustainable use of natural resources at all levels. Arguably evidence of women's lack of or limited participation can be discerned in the framing of foundational instruments dealing with the environment. For instance, Principle 1 of the Stockholm Declaration provides that 'man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being'.⁶¹ The reference to 'man' in the language, appears discriminatory and patriarchal, but it is a product of the historical period in which the Stockholm Declaration was adopted. Twenty years on, the pendulum of international law had evidently swung in the direction of recognising women's participation in environmental decision-making. In 1992, the Rio Declaration on Environment and Development emphasised the vital role of women in environmental management and development and the importance of ensuring their full participation.⁶² The Beijing Platform adopted at the fourth world conference on women in 1995 recognises the essential role women have to play in creating sustainable development and lays out a number of actions to be taken by states to address the situation of women and the environment.⁶³ In the context of environmental protection, the rationale for the participation of women, as explained by the CEDAW Committee's Recommendation 37, is useful.

55 Beijing Declaration and Platform of Action, adopted at the 4th World Conference on Women, 27 October 1995 (Beijing Platform).

56 United Nations Millennium Declaration, Resolution Adopted by the General Assembly, 18 September 2000, A/RES/55/2.

57 Report of the United Nations Department of Economic and Social Affairs on *Global Sustainable Development*, 2015 edition (30 June 2015) (UN DESA Report).

58 UN General Assembly (UNGA) Resolution 66/288 'The future we want', A/RES/66/288, 27 July 2012 para 135.

59 Human rights and the environment' Resolution adopted by the Human Rights Council on 12 April 2011, A/HRC/RES/16/11 (Resolution 16/11; Human rights and the environment', Resolution adopted by the Human Rights Council on 15 March 2012 A/HRC/19/L.J. Rights of the child: realizing the rights of the child through healthy environment on 7 October 2020 A/HRC/RES/45/30; Human rights and the environment', Resolution adopted by Human Rights Council on 23 March 2021 A/HRC/46/L.6.REV.17.

60 United Nations General Assembly Resolution (A/76/L.75), The human right to a clean, healthy and sustainable environment.

61 Declaration of the United Nations Conference on the Human Environment at Stockholm 1972; see also General Assembly resolution 2581 (XXVI) which set out the purpose of convening the Stockholm Conference (Stockholm Declaration).

62 United nation conference on environment and development, Rio Declaration on Environment and Development A/CONF.151/26.14 June 1992, principle 20.

63 Beijing Platform (n 55) Chapter IV.

It is necessary to ensure that all necessary sectors and perspectives are included in environmental governance. Women's viewpoints are important as they are often overlooked despite the significance of their experiences.⁶⁴ In its Preamble, the Convention on Biodiversity (CBD) recognises 'the vital role that women play in the conservation and sustainable use of biological diversity and affirms the need for the full participation of women at all levels of policy making and implementation for biological diversity conservation'.⁶⁵ Article 17(3) of the African Convention on the Conservation of Nature and Natural Resources (African Conservation Convention) affirms that active participation by the local communities is crucial to the sustainable use of resources. In *SERAC*,⁶⁶ while interpreting the right to a satisfactory environment favourable to their development, the African Commission noted that the realisation of that right is possible only where communities participate in the decision-making process relating to the environment.⁶⁷ Participation of women in environmental decision-making is necessary for protecting and conserving the environment.⁶⁸

3.3 Sustainable use

Sustainable use is an important element of article 18(2)(a) of the Maputo Protocol. It is a functional concept to mediate the tension between human survival and the need for the conservation of biodiversity. Sustainable use forms a core part of the three objectives of the CBD – the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources – that are mutually supportive and stand on equal footing.⁶⁹ In particular, to validate its relevance to biodiversity, article 2 of the CBD defines sustainable use as:

the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.⁷⁰

The notion of sustainable use is stressed in other relevant provisions of existing key environmental instruments outside the CBD: Convention on the Conservation of Migratory Species of Wild Animals (CMS),⁷¹ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),⁷² the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa,⁷³ the United Nations Framework

64 Committee on the Elimination of Discrimination against Women 'General Recommendation 37 on gender-related dimensions of disaster risk reduction in the context of climate change' CEDAW/C/GC/37, 7 February 2018 (General Recommendation 37) para 32.

65 The Convention on Biological Diversity of 5 June 1992 (1760 UNTS 69) Preamble; also see C Kabaseke & EC Lubaale 'Making a case for recognition of women's contribution in the legal framework for environmental conservation in Uganda' (2021) 30(3) *Stellenbosch Law Review* 392.

66 *SERAC* (n 48).

67 *SERAC* (n 48) para 53.

68 C Kabaseke 'Women's right to participation in environmental decision-making in Uganda' in M Addaney & AO Jegede (eds) *Human rights and the environment under African Union law* 287-314.

69 CBD (n 65); South Sudan is the only state in Africa that is not signatory to the CBD, see Convention on Biodiversity 'List of Parties' <https://www.cbd.int/information/parties.shtml> (accessed 1 November 2022).

70 CBD (n 65) art 2.

71 Convention on the Conservation of Migratory Species of Wild Animals UNTS Volume Number: 1651, Preamble; all except four African states (Sudan, Democratic Republic of Congo, Botswana and Namibia) have ratified the instrument, see 'Convention on the Conservation of Migratory Species of Wild Animals: Parties and Range States' <https://www.cms.int/en/parties-range-states> (accessed 1 November 2022).

72 Convention on International Trade in Endangered Species of Wild Fauna and Flora UNTC Volume Number 14537 which calls for the protection of the flora and fauna for the present and future generation; 53 states in Africa are parties to the instrument, see CITES 'List of Contracting Parties' <https://cites.org/eng/disc/parties/chronolo.php> (accessed 23 June 2023).

73 United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/

Convention on Climate Change,⁷⁴ the Paris Agreement thereunder,⁷⁵ the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention),⁷⁶ the United Nations Convention of the Law of the Sea,⁷⁷ and the 2030 Agenda for Sustainable Development.⁷⁸

At the regional level in Africa, a fundamental objective of the African Conservation Convention is to foster the conservation and sustainable use of natural resources.⁷⁹ Also, sustainable use is a key component of Aspiration 1, dealing with inclusive growth and sustainable development under the African Union (AU) Agenda 2063.⁸⁰

3.4 Renewable energy

Article 18(2)(b) imposes an obligation on states to facilitate women's participation and control of 'research and investment in new and renewable energy sources and appropriate technologies, including information technologies'.⁸¹ Considering the societal role of household responsibility that women have, the importance of access to and control of renewable energies cannot be overstated. Studies show that improved biomass-burning stoves have an incremental positive impact on air quality and can yield modest health benefits.⁸² AU Agenda 2063 prioritises the need to harness alternative energy sources as it is 'efficient, reliable, cost-effective, renewable and environmentally friendly', for the benefit of all African households.⁸³ The necessity for this policy direction is further reinforced by the AU Commissioner for Infrastructure and Energy, who expressed that it is in the best interest of Africa to use the availability of abundant renewable energy sources for power generation and clean cooking.⁸⁴

or Desertification, particularly in Africa United Nations, Treaty Series, vol 1954, p 3, art 19(1)(c) seeks to empower capacity building of states for the conservation and sustainable use of natural resources; all the states in Africa are parties to the UNCCD, see 'UNCCD: Annex 1: Africa' [https://www.unccd.int/convention/regions/annex-i-africa#:~:text=Africa%3A%20Regional%20cooperation,National%20Action%20Programmes%20\(NAPs\)](https://www.unccd.int/convention/regions/annex-i-africa#:~:text=Africa%3A%20Regional%20cooperation,National%20Action%20Programmes%20(NAPs)) (accessed 23 June 2023).

74 United Nations Framework Convention on Climate Change (UNFCCC) (1992) ILM 851, art 3(4) on the recognition of sustainable development and 3(5) on sustainable economic growth in State parties especially developing states; All the states in Africa are parties to the UNFCCC, see UNFCCC 'Parties to the United Nations Framework Convention on Climate Change' <https://unfccc.int/process/parties-non-party-stakeholders/parties-convention-and-observer-states> (accessed 23 June 2023).

75 Paris Agreement under the United Nations Framework Convention on Climate Change, adopted 30 Nov-11 Dec 2015 at the 21st Sess., Conference of the Parties, FCCC/CP/2015/L.9/Rev.1 (*Paris Agreement 2015*); its Preamble deals with equitable access to sustainable development, sustainable lifestyle and sustainable consumption while article 6 generally deals with sustainable development; all the states in Africa are parties to the Paris Agreement, see UNFCCC 'Paris Agreement – Status of Ratification', <https://unfccc.int/process/the-paris-agreement/status-of-ratification> (accessed 23 June 2023).

76 Convention on Wetlands of International Importance Especially as Waterfowl Habitat UNTS Volume Number 14583, art 3(1) on the wise use of wetlands; fifty states in Africa are signatories to the instrument, see The Danish Institute for Human Rights 'Signatories for Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat' <https://sdg.humanrights.dk/en/instrument/signees/2485> (accessed 23 June 2023).

77 Convention on the Law of the Sea, Dec. 10, 1982, 1833 UNTS 397, art 119(1)(a) on the need for States to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield; fifty three states in Africa are signatories to the instrument, see Convention on the Law of the Sea 'Status of Ratification' <https://treaties.un.org/doc/Publication/MTDSG/Volume%20II/Chapter%20XXI/XXI-6.en.pdf> (accessed 23 June 2023).

78 United Nations General Assembly Transforming our World: the 2030 Agenda for Sustainable Development, A/res/70/1, adopted by the General Assembly on 25 September 2015.

79 Revised African Convention on the Conservation of Nature and Natural Resources. 7 March 2017 (African Conservation Convention).

80 UNGA Resolution 66/288, para 18.

81 Maputo Protocol art 18(2)(b).

82 J Rosenthal et al 'Clean cooking and the SDGs: Integrated analytical approaches to guide energy interventions for health and environment goals' (2018) 42 *Energy for Sustainable Development* 152.

83 UNGA Resolution 66/288, 16.

84 AU Press release 'Is energy transition the answer to Africa's climate change and socio-economic development? What will

Also, women working in the coal based sector need special attention as studies highlight that the implementation of a just energy transition may be uneven, as states may neglect the rights of workers whose livelihood depends on the fossil-based sector.⁸⁵

3.5 Indigenous knowledge systems

The protection and the development of women's indigenous knowledge systems under article 18(2) (c) of the Maputo Protocol are critical to the realisation of women's right to a healthy and sustainable environment. Women in Africa have a pivotal role to play in the protection of the environment in that they possess traditional knowledge, experiences and wisdom, which are valuable.⁸⁶ Traditional knowledge refers to 'a set of cultural traditions, values, belief systems, and world views in any indigenous society that are imparted to the young generation by community elders'.⁸⁷ Such knowledge is based on collective understandings and interpretations of the social, physical, and spiritual worlds.⁸⁸ They include the concepts, beliefs, perceptions, and experiences of local peoples in their natural and human-built environments.⁸⁹ The knowledge extends to all aspects of life, including the management of the natural environment and the interaction of people with the environment.⁹⁰ It has been argued that if supported by appropriate strategies, women's indigenous knowledge can contribute to the earth's recovery.⁹¹ Although women are not specifically mentioned, article 17 of the African Conservation Convention recognises the need to promote indigenous knowledge in the context of conservation and urges states to ensure that the intellectual property rights of members of local communities are respected.⁹² Such knowledge, in terms of article 17(3) of the African Conservation Convention, is to be integrated and incentivised in the process of planning and management of natural resources with a view to encouraging conservation and sustainable use of such resources. Besides, considering their local traditional knowledge, women can make important contributions to environmental management. The knowledge is derived from their involvement in agricultural practices and closeness to nature as they can observe its changes and respond through 'different adaptive practices in crop selection, planting, harvesting, land conservation techniques and careful management of water resources'.⁹³

The protection and development of women's indigenous knowledge systems are consistent with CEDAW General Recommendation 37, which affirms the importance of including all significant sectors and perspectives in environmental governance.⁹⁴

it take for Africa to reach net-zero emissions?' 9 November 2021.

85 L Eicke, S Weko & A Goldthau 'Countering the risk of an uneven low-carbon energy transition' (2019) 8 IASS Policy Brief 4; C Strambo, J Burton & A Atteridge 'The end of coal? Planning a "just transition" in South Africa' (2019) SEI Report 1-16.

86 Catacora-Vargas (n 16).

87 AO Jegede 'African Union peace and security architecture: can the panel of the wise make a difference?' (2009) 9 *African Human Rights Law Journal* 409.

88 As above.

89 AO Jegede & A Masoga 'Climate change adaptation and indigenous knowledge: prospecting African Union channels for influencing national policy (2016) 15(2) *Indilinga African Journal of Indigenous Knowledge Systems* 1.

90 S Harding *Is science multicultural?: Postcolonialism, feminism, and epistemologies* (1998).

91 N Wane 'Indigenous knowledge: lesson from the elders: a Kenyan case study' in G Dei, B Hall & D Rosenberg (eds) *Indigenous knowledges in global contexts* (2000) 93.

92 African Conservation Convention (n 79) art 17(1).

93 General Recommendation 37 (n 64) para 33.

94 General Recommendation 37 (n 64) para 32.

3.6 Domestic and toxic waste

Under article 18(2)(d) and (e), states have an obligation to regulate domestic waste and put in place proper standards for the disposal of toxic waste.⁹⁵ This is generally because of the hazard they pose to the health and livelihood of women. Article 1(1) of the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa defines ‘wastes’ as ‘substances or materials which are disposed of, or are intended to be disposed of, or are required to be disposed of by the provisions of national law’.⁹⁶ Household hazardous waste has been defined as ‘the fraction of waste, originated from households, which contains corrosive, explosive, flammable, toxic, ignitable, or reactive ingredients and is difficult to dispose of or which put human health and the environment at risk because of its bio-chemical nature’.⁹⁷

Africa is facing an increasing waste management problem. The mismanagement of waste is adversely impacting human and environmental health. Women’s exposure to waste can cause direct and indirect incremental harm to their health, including the disruption of their hormonal and reproductive health.⁹⁸ Another trend of exposure is experienced when women play their role as important agents in recycling waste.⁹⁹ Activities associated with recycling do not only expose women to pollution.¹⁰⁰ Research has shown that women who sift through the waste for their livelihood also suffer from reproductive health problems.¹⁰¹

The African Conservation Convention requests states to take action concerning the management and processing of waste and its transboundary movement.¹⁰² The likely consequence that hazardous waste may have on human health is well noted in the only African regional instrument on hazardous waste: the Bamako Convention. It affirms that waste can pose the risk of damage to human health and threaten the environment and that the most effective way of addressing the risk is for states to reduce waste generation and its potential harm.¹⁰³ The urgency of addressing waste is evident in SDG 6 (clean water and sanitation), SDG 12 (responsible consumption and production), and SDG 5 (gender equality, which is at the centre of all the strategic goals). Consequently, for women in Africa, article 18(2)(d) and (e) of the Maputo Protocol requires states to adopt such measures that reduce the health and environmental consequences of waste on women’s pursuit of their livelihoods.

95 Maputo Protocol arts 18(c) & (d).

96 Bamako Convention on the Ban of the Import into Africa and the control of transboundary movement and management of hazardous wastes within Africa (1991) (Bamako Convention).

97 J Gutberlet & SMN Uddin ‘Household waste and health risks affecting waste pickers and the environment in low- and middle-income countries’ (2017) 23(4) *International Journal of Occupational and Environmental Health* 299, 301; also see ES Bass, RL Calderon & ME Khan ‘Household hazardous waste: a review of public attitudes and disposal problems’ (1990) 52(6) *Journal of Environmental Health* 358.

98 M Lakhani ‘Wasting women – the biopolitics of waste and women’ *Empowering Women for Gender Equity* 73 (2007) 1(1) *Biopolitics New Technologies Trilogy* 93.

99 A Almasi et al ‘Assessing the knowledge, attitude and practice of the Kermanshahi women towards reducing, recycling and reusing of municipal solid waste’ (2019) 141 *Resources, Conservation and Recycling* 329.

100 Africa Institute ‘Regional policy guidelines: economic instruments for the environmentally sound management of used lead acid batteries’ (2013).

101 S Kumar, A Sharma & C Kshetrimayum ‘Environmental & occupational exposure & female reproductive dysfunction’ (2019) 150(6) *Indian Journal of Medical Research* 532; S Hariparsad & RN Naido ‘The effects of occupational pollutants on the reproductive health of female informal street traders in Warwick junction, Durban, South Africa – A cross-sectional study’ (2019) 19 *BMC Women’s Health* (2019) 163.

102 African Conservation Convention (n 79) art 22(2)(g).

103 Bamako Convention (n 96) Preamble.

4 Nature and scope of state obligations

Article 18(2)(a)-(e) of the Maputo Protocol requires states parties to undertake certain measures. The nature and scope of state obligations can be clarified by reference to human rights soft law, which stipulates measures that are relevant to different aspects of article 18 elements. As shown in the ensuing discussion, such reference can offer an interpretive insight into the application of article 18 as a whole.

Article 18(2)(a) urges parties to take appropriate measures to ‘ensure greater participation of women in the planning, management and preservation of the environment and the sustainable use of natural resources at all levels’. The CEDAW guarantees the equal right of women to ‘participate in the formulation of government policy and the implementation thereof’ and to ‘participate in non-governmental organizations and associations concerned with the public and political life of the country’. The CEDAW further provides that women living in rural areas have the right to ‘participate in the elaboration and implementation of development planning at all levels’. The right of women to participate in political and decision-making processes is specifically guaranteed under article 9 of the Maputo Protocol, which also requires states to take positive measures, including affirmative action and craft appropriate legislation to aid their effective representation and participation.

Participation in the context of article 18(1)(a) focuses on the sustainable use of natural resources. The obligations relating to this expectation can be explained with the provisions of other relevant international instruments. Article 5 of the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP), for example, guarantees the rights of peasants to sustainable use of natural resources and participation in its management.¹⁰⁴ Article 4 of UNDROP requires states to take measures to ensure participation, empowerment, access to natural resources and enjoyment of general human rights of peasant women.

Article 18(2)(b) focuses on research and investment in contemporary renewable energy sources as a crucial component of states’ obligation to realise the right to a healthy and sustainable environment. The obligation includes promoting technologies, including information technologies, and facilitating women’s access and control of these means. The significance of the transition to renewable energy for women is underscored by CEDAW Committee General Recommendation 37. It affirms that to address the negative consequences of climate change on women’s rights, states should put in place and ensure the participation of women in measures that reduce pollution and promote the transition to renewable energies.¹⁰⁵ The foregoing comments justify that states have a unique role to play in fulfilling the content of article 18(2)(b) of the Maputo Protocol as a necessary component of the right of women to a healthy environment. State measures should not only showcase women as the centre of investments and research on renewable energy sources but also their participation in research and investments meant to drive such an agenda. Shedding light on the direction of such measures, CEDAW Recommendation 37 requires states to ensure that such measures are gender respective.¹⁰⁶ Involving women in the renewable energy sector can positively impact their quality of life. According to the World Health Organisation, investing in clean household energy can prevent climate change and protect the health of women and children.¹⁰⁷ Participation, access and control of women can also be improved by including women in the decision-making process, programmes and agendas on research and investment in renewable energies and appropriate technologies. CEDAW Recommendation 37 explains that participation of women in environmental decision-making includes the promotion of

104 United Nations Declaration on the Rights of Peasants and Other People Working in Rural Area, Resolution adopted by the General Assembly on 17 December 2018, A/RES/73/165 (UNDROP) art 4.

105 General Recommendation 37 (n 64) para 51.

106 General Recommendation 37 (n 64) para 64(e).

107 WHO Report (n 5) 89.

equal representation and equipping them with ‘sufficient resources, skills, and authority to lead, advise, monitor and carry out strategies’.¹⁰⁸

Similarly, the protection of women while transitioning to renewable energy sources requires states’ interventions. For instance, it has been argued that states should ensure that transitioning to alternative energy sources does not unduly affect workers.¹⁰⁹ This position applies especially to women workers as they are more vulnerable to losing their job in the coal sector, which is largely male-dominated. The principles and imperatives of a just transition that may be helpful in shaping states’ measures are well laid down in the International Labour Organization (ILO) *Guidelines for a Just Transition Towards Environmentally Sustainable Economies and Societies for All*.¹¹⁰ ILO Guidelines set out key principles to guide the transition to environmentally sustainable economies and societies. These principles include informed consultation with stakeholders; protection of human rights; regard for gender in environmental challenges and opportunities; the creation of more decent jobs; preparation for projected impacts of transition on job losses and displacement; skills development; and collective bargaining.¹¹¹ The Guidelines also call upon states to provide a regulatory framework to enable sustainable enterprise development and decent work.¹¹² The foregoing measures are needed to protect the interests of women working in energy-related sectors while transiting to alternative energy sources.

In terms of article 18(2)(c), to realise the right of women to a healthy and sustainable environment, states should ‘protect and enable the development of women’s indigenous knowledge systems’. Measures of states with regard to the development and protection of women’s indigenous knowledge may include recognition of their role, promotion of their conservation techniques and incentivising their involvement in environmental management. Writing generally on the protection of traditional knowledge, Ferras argues that most legal systems offer limited protection because it is generally in oral form and not in a written format.¹¹³ This, arguably, signifies that the starting point for the promotion of women’s indigenous knowledge in environmental management by states is to accord it formal legal recognition in the legal system. Further light on other measures to be taken can be found in the *African Union Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources* (AU Model Law). The AU Model Law underscores the key role of women ‘in the generation, conservation, and sustainable use of biological diversity and associated knowledge’.¹¹⁴ In the main, the AU Model Law calls for the implementation of the Consultation and Prior Informed Consent rule in any project that involves indigenous knowledge,¹¹⁵ ensuring that they benefit from earnings that accrue from the use of such knowledge,¹¹⁶ and establishing a national information centre and database on traditional knowledge.¹¹⁷

Article 18(2)(d) requires states to ‘regulate the management, processing, storage and disposal of domestic waste’ while article 18(2)(e) calls for compliance with appropriate standards ‘for the storage,

108 General Recommendation 37 (n 64) para 36(d).

109 AO Jegede ‘Should they “just” leave? Global energy transition, climate change and the protection of workers’ rights in South Africa’ (2021) 19(1) *Oil, Gas and Energy Law Journal* 1.

110 International Labour Organization, *Guidelines for a just transition towards environmentally sustainable economies and societies for all* (ILO 2015) (ILO Guidelines).

111 ILO Guidelines (n 110) para 13.

112 ILO Guidelines (n 110) para 15(a).

113 L Ferris ‘Protecting traditional knowledge in Africa: considering African approaches (2004) 2 *African Human Rights Law Journal* 242.

114 African Union Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, Algeria 2000 (AU Model Law) Preamble.

115 AU Model Law (n 114) sec 5(1) & (2).

116 AU Model Law (n 114) sec 12(2).

117 AU Model Law (n 114) secs 64 & 65.

transportation and disposal of toxic waste'. The African Conservation Convention prescribes measures that states should implement to address the detrimental effects of 'toxic, and other hazardous substances and waste' on the environment. It urges states to:

- (a) establish, strengthen and implement specific national standards, including for ambient environmental quality, emission and discharge limits as well as process and production methods and product quality.
- (b) provide for economic incentives and disincentives, with a view to preventing or abating harm to the environment, restoring or enhancing environmental quality, and implementing international obligations in these regards; and
- (c) adopt measures necessary to ensure that raw materials, non-renewable resources, and energy, are conserved and used as efficiently as possible, and that used materials are reused and recycled to the maximum extent possible while non degradable materials are disposed of in the most effective and safe way.¹¹⁸

The above measures are relevant to the realisation of the right of women to a healthy and sustainable environment in that they are deserving responses to the challenges which women often face in the context of domestic and toxic waste disposal in Africa.

Also, article 4 of the Bamako Convention stipulates general obligations of states on the importation of hazardous wastes. These include taking appropriate measures to prohibit its importation. In relation to waste generated in Africa, it calls upon states to impose unlimited liability on generators, ensure its maximal reduction, and provide adequate and environmentally sound disposal facilities.¹¹⁹ Parties are requested to apply precautionary measures so as to prevent the release of a substance that may 'cause harms to humans and the environment without waiting for scientific proof'.¹²⁰ They also have an obligation to 'promote clean production methods applicable to entire product life cycles'.¹²¹

5 Implementation

This section analyses the measures being taken in the implementation of article 18 of the Maputo Protocol. The discussion will highlight constitutional, legislative, administrative, and judicial measures, as well as their attendant implementation challenges.

5.1 Constitutional and legislative measures

An analysis of state reporting on legislative measures taken on this wide range of issues under article 18 of the Maputo Protocol offers insight into the extent of implementation of article 18(e) of the Maputo Protocol. In reporting to the African Commission, states sometimes argue that their general constitutional provision on the right of everyone to the environment is inclusive of women's interests. For instance, in a range of reports, reference was made to general constitutional provisions such as section 24 of the Constitution of South Africa,¹²² section 73 of the Constitution of Zimbabwe,¹²³

118 African Conservation Convention (n 79) art 13(2).

119 Bamako Convention (n 96) art 4(3) a-e.

120 Bamako Convention (n 96) art 4(3)(f).

121 Bamako Convention (n 96) art 4(3)(g).

122 Republic of South Africa Combined Second Periodic Report under the African Charter on Human and Peoples' Rights and initial report under the Protocol to the African Charter on the Rights of Women in Africa (2015) paras 259-261.

123 Republic of Zimbabwe 11th, 12th, 13th, 14th and 15th Combined Report under the African Charter on Human and Peoples' Rights and 1st, 2nd, 3rd and 4th Combined Report under the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women (2007-2019) (2019) 97.

section 29 of the Burkina Constitution,¹²⁴ section 24 of the Algeria Constitution,¹²⁵ section 36 of the Lesotho Constitution,¹²⁶ section 38 of the Constitution of the Republic of Seychelles,¹²⁷ and section 11 of the 2005 Sudanese Transitional Constitution.¹²⁸ While sections 46 and 47 of the Constitution of the Democratic Republic of Congo (DRC) are only reported as protecting the interest of women and men in relation to the right to a healthy environment,¹²⁹ it is not so textually reflected in the Constitution. Rather in the case of DRC, the appropriate provision dealing with the right to a healthy environment can be found in section 53 of the DRC Constitution. Based on the sampled reports, there is no constitutional provision on the protection of the environment which specifically refers to women or women's participation. However, the lack of specific mention of women may not necessarily undermine the implementation of article 18 because there is nothing in the provisions relating to the right to the environment, as evidenced by the wording of the Constitution, which specifically exempts women. Also, the provision has not been applied or interpreted as exclusive to women.

There are states with laws that have a bearing on article 18(2)(a) of the Maputo Protocol, though. The National Environmental Management Act of South Africa emphasises the need to recognise the vital role of women in environmental management and development and ensure their participation.¹³⁰ Relevant legislative measures relating to the sustainable use of resources by women are evidenced by legislation enabling equal access to land. For instance, Nigeria's National Land Commission Act¹³¹ and the Land Registration Act¹³² entrench principles of gender equality in access to land and enshrine the rights of women to own land and property. The DRC asserts that sections 39 and 43 of the Forest Code of 2002 (which govern the right of populations dependent on forest resources) puts men and women on an equal footing with regard to participation in the sustainable use and preservation of natural resources.¹³³

Other countries whose land laws require gender equality in the context of sustainable use of natural resources include Kenya's Land Act,¹³⁴ Tanzania's Land Act,¹³⁵ Uganda's Land Act,¹³⁶ Ghana's Land Act,¹³⁷ and Ethiopia's Rural Land Proclamation.¹³⁸ One of the guiding principles and values of Kenya's Land Act is to stop gender discrimination associated with land and property law, customs

124 Burkina Faso 3rd and 4th Periodic Report (2011-2013), submitted 7 August 2015, 57th ordinary session 2015, para 351 (Burkina Faso Report).

125 People's Democratic Republic of Algeria 5th and 6th Periodic Reports on the African Charter on Human and Peoples' Rights 2010-2014 (2015) para 64.

126 The Kingdom of Lesotho Combined Second to Eighth Periodic Report under the African Charter on Human and Peoples' Rights and initial report under the Protocol to the African Charter on the Rights of Women in Africa (2018) para 172.

127 Republic of Seychelles 3rd Periodic Report under the African Charter on Human and Peoples' Rights, 2006-2019 (2021) para 18(1).

128 Republic of Sudan the 4th and 5th Periodic Reports of the Republic of Sudan in Accordance with art 62 of the African Charter on Human and Peoples' Rights 2008-2012 (2012) para 193.

129 Democratic Republic of Congo Report to the African Commission on Human and Peoples' Rights on the implementation of the African Charter on Human and Peoples' Rights from 2008 to 2015 (11th, 12th, and 13th Periodic Reports) and of the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa from 2005 to 2015 (Initial Report and 1st, 2nd and 3rd Periodic Reports) (2017) para 295.

130 National Environmental Management Act 107 of 1998.

131 The National Land Commission Act 2012.

132 The Land Registration Act 2012.

133 Democratic Republic of Congo report (n 129) 58-60.

134 Kenya Land Act 6 of 2012.

135 Tanzania Land Act Chapter 113, 1 May 2001.

136 Uganda Land Act. Amended by the Land (Amendment) Act 2001, The Land (Amendment) Act 2004, The Land (Amendment) Act 2010.

137 Ghana Land Act 1036 of 2020.

138 Ethiopia Rural Land Proclamation 2005.

and practices.¹³⁹ Section 17(2) of the Tanzania Land Act stresses the need to have an equal number of men and women as members of the National Land Advisory Council. The rights of women regarding customary land are recognised by section 27 of the Uganda Land Act. Section 11 of the Ghana Land Act prohibits discriminatory practice on the ground of gender in any decision or practice regarding customary land. In terms of section 3 of the Ethiopia Rural Land Proclamation, all the rights conferred under the instrument apply to both the ‘masculine and feminine gender’. Section 211 of the Constitution of Eswatini provides that gender shall not exclude anyone from equal access to land for normal domestic purposes.¹⁴⁰ The involvement of women in the sustainable use of natural resources is evident from Burkina Faso’s report, which explains that gender and equity are observed to ensure women’s participation in the governance of forests and other natural resources.¹⁴¹ Although this may not always translate into practice, this development is positive as it shows generally that there is no basis in law to deny women access to and control of natural resources including land.

Article 18(2)(b) of the Maputo Protocol (promoting research and investment in renewable energy and appropriate technology) has attracted no specific legislative attention that is visible in the reports of state parties. Some states have legislation and or policy which does not highlight gender issue in the renewable energy sector. Examples are the Ghana Renewable Energy Act¹⁴² and Mauritius Renewable Energy Agency Act.¹⁴³ There are exceptions, as are seen in South Africa White Paper on the Renewable Energy Policy,¹⁴⁴ Tanzania National Energy Policy,¹⁴⁵ Kenya Energy Act,¹⁴⁶ and Rwanda Energy Sector Strategic Plan.¹⁴⁷ However, none of these official documents addresses the potential negative implications of transitioning to renewable energy sources on women working in the energy sector. Also, reports of some states before the African Commission do not indicate any legislation put in place to specifically tackle women’s challenges in the context of renewable energy. This is the position with Uganda,¹⁴⁸ South Africa,¹⁴⁹ Tanzania,¹⁵⁰ DRC,¹⁵¹ Kenya,¹⁵² Namibia,¹⁵³ and Nigeria.¹⁵⁴ The general lack of reporting on the regulatory standards highlighting the protection of women’s interests in research and investment and appropriate technology on renewable energies raises doubts about the commitment of states towards the material details in article 18(2)(b) of the Maputo Protocol.

139 Section 4(2)(f) of Kenya Land Act.

140 Kingdom of Eswatini Combined 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th and 9th Periodic Report on the African Charter on Human and Peoples’ Rights and Initial Report to the Protocol to the African Charter on the Rights of Women in Africa (2021) para 605.

141 Burkina Faso Report (n 124) para 285.

142 Ghana Renewable Energy Act 832 of 2011.

143 The Mauritius Renewable Energy Agency Act 11 of 2015.

144 White Paper on the Renewable Energy Policy of the Republic of South Africa (2003) 38-39.

145 Tanzania National Energy Policy (2015) sec 4(4).

146 Kenya Energy Act 1 of 2019, sec 26(16)(c).

147 Energy Sector Strategic Plan 2018/19-2023/24 September 2018 sec 3.3.3.

148 Republic of Uganda Periodic Report to the African Commission on Human and Peoples’ Rights (2013).

149 South Africa Report (n 122).

150 United Republic of Tanzania 2nd to 10th Periodic Report on the African Charter on Human and Peoples’ Rights, 1992-2006 (2008).

151 Democratic Republic of Congo Report (n 129).

152 Republic of Kenya Combined Report of the 12th and 13th Periodic Reports on the African Charter on Human and Peoples’ Rights and the Initial Report on the Protocol to the African Charter on Human and Peoples’ Rights on the Rights of Women in Africa’ (2020).

153 Republic of Namibia 7th Periodic Report on the African Charter on Human and Peoples’ Rights and the second report under the Protocol to the African Charter on Human and Peoples’ Rights on the Rights of Women in Africa (2020).

154 Nigeria’s 5th Periodic Country Report on the Implementation of the African Charter on Human and Peoples’ Rights in Nigeria (2011).

In terms of article 18(2)(c) of the Maputo Protocol, the Namibia's Access to Biological and Associated Traditional Knowledge Act,¹⁵⁵ shows that the general protections and promotion of traditional knowledge associated with biodiversity or environment is sometimes recognised by law.¹⁵⁶ However, this instrument has no provision for women, a feature that is found in the Protection, Promotion, Development and Management of Indigenous Knowledge Act of South Africa.¹⁵⁷ A similar feature is found in the Kenya Protection of Traditional Knowledge, Genetic Resources and Expressions of Folklore Act.¹⁵⁸ Other measures necessary for protecting women's informed consent and access to benefits derived from their traditional knowledge are not given any particular consideration in the instruments. The non-reference to women and gender in official documents of state parties governing traditional knowledge shows a lack of special legal recognition for the role they play in environmental management.

In contrast with the expectation under article 18(2)(d) and (e) of the Maputo Protocol, the special recognition of women or women-specific measures is not evident in a number of national laws dealing with waste management. For instance, it is not evident in the Environmental Code of Burkina Faso,¹⁵⁹ the Environmental Code of Mauritania,¹⁶⁰ and Uganda National Environment (Waste Management) Regulations.¹⁶¹ Nor do the South Africa National Environmental Management: Waste Act,¹⁶² Egypt Waste Management Law,¹⁶³ the Tanzania Environmental Management (Hazardous Waste Control and Management) Regulations,¹⁶⁴ and the Anti-Littering Act of The Gambia.¹⁶⁵ Doubtless, the implementation of these instruments may positively impact the environment and thereby enhance the realisation of the right of women to a healthy and sustainable environment. For instance, section 32 of the Environmental Code is useful as it requires anyone who produces or keeps wastes harmful to public health or environmental health to ensure its removal. However, instruments of that nature lack the necessary indication on what and how measures are to be implemented in the protection of women's right to healthy and sustainable health. This pattern is reflected in the reports by Uganda¹⁶⁶ and Tanzania.¹⁶⁷ While there is information on laws and general efforts by states to address waste management in the reports by Burkina Faso,¹⁶⁸ South Africa,¹⁶⁹ Egypt,¹⁷⁰ Mauritius,¹⁷¹ The Gambia,¹⁷² and Mauritania,¹⁷³ specific details in relation to women are missing.

155 Namibia Access to Biological and Genetic Resources and Associated Traditional Knowledge Act 2 of 2017 (Namibia Traditional Knowledge Act).

156 Namibia Traditional Knowledge Act (n 155) sec 2(e).

157 South Africa Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019.

158 Kenya Protection of Traditional Knowledge, Genetic Resources and Expressions of Folklore Act 16 of 2016.

159 Burkina Faso Law 006-2013 (on the Code for the Environment).

160 Mauritania Law 2000-045 (on the Environmental Code).

161 Uganda National Environment (Waste Management) Regulations 49 of 2020.

162 South Africa National Environmental Management: Waste Act 59 of 2008.

163 Egypt Waste Management Law No.202 of 2020; as translated by FAOLEX Database.

164 The Environmental Management (Hazardous Waste Control and Management) Regulations, 2019.

165 The Gambia Anti-Littering Regulations, 2007.

166 Uganda Report (n 148).

167 Tanzania Report (n 150).

168 Burkina Faso Report (n 124) para 290.

169 South Africa Report (n 122) paras 148, 506, 509.

170 Arab Republic of Egypt Periodic Report on the African Charter on Human and Peoples' Rights 2001-2017 (2018) 53.

171 The Republic of Mauritius 9th to 10th Combined Periodic Report to the African Commission on Human and Peoples' Rights Implementation of the African Charter on Human and Peoples' Rights paras 166, 412, 413, 419.

172 The Gambia Combined Report of the African Charter on Human and Peoples' Rights for the period 1994 and 2018 and initial report under the Protocol to the African Charter on the Rights of Women in Africa (2018) paras 74, 114, 115.

173 Islamic Republic of Mauritania 10th, 11th, 12th, 13th and 14th Periodic Reports of the Islamic Republic of Mauritania on the Implementation of the Provisions of the African Charter on Human and Peoples' Rights (2017) 44, 66.

5.2 Administrative measures

State reports show a number of administrative actions being taken to ensure the realisation of some of the components of article 18. In line with article 18(2)(a) of the Maputo Protocol, the deliberate involvement of women in environmental decision-making and awareness creation of their role therein and management processes are reported by South Africa¹⁷⁴ and Togo.¹⁷⁵ In particular, the National Programme for Decentralized Environmental Management Action (PNADE) of Togo involves women in transparent decision-making, feasibility review and implementation of actions at all levels.¹⁷⁶ In Zimbabwe, to ensure the full participation of women in the agricultural sector, the government is promoting contract farming in crop and animal production with an emphasis on value addition by female farmers.¹⁷⁷ Kenya supports women's participation and leadership in environmental and natural resource management and governance, citing as examples the provision of environmentally friendly cooking fuel to women in the rural areas under the 'LPG Uptake Promotion' and the Kenya National Domestic Biogas Program.¹⁷⁸ The South African Land Reform Gender Policy aims to create an enabling environment for women to access, own, control, use and manage land and credit facilities.¹⁷⁹ Through its legislation, the DRC has set the rule on microfinance, which benefits women.¹⁸⁰ The Enterprise Seychelles Agency, an institution established by law, is required to consider women in its functions and provide assistance to female entrepreneurs.¹⁸¹ The foregoing shows that women are engaged in matters relating to environmental management and sustainable use of resources. Much still remains, however, to be achieved to ensure engagement at the decision-making level of 'planning, management and implementation' as anticipated under article 18(1)(a).

Regarding article 18(2)(b) of the Maputo Protocol, in DRC, the National Renewable Energy Department, which promotes research and investment in the area of new and renewable energy sources, involves women in those activities.¹⁸² In Nigeria, projects such as the National Clean Cooking Scheme, which is an aggressive drive to reduce cooking with solid sand fossil fuels such as firewood and kerosene, are under implementation.¹⁸³ Similar to Nigeria, the report by Kenya shows the use of environmentally friendly cooking fuel that is women-friendly and available in rural areas.¹⁸⁴ Algeria cites its National Strategy for the Integration and promotion of women, which revolves around the improvement of women's rights in all areas (education and vocational training, health, economy, culture and ICT).¹⁸⁵ In Burkina Faso, gender dimensions and women's participation in the implementation of a national multi-functional platform programme for poverty alleviation (PN-PTFM/LPC) has made it possible for women to access modern energy and create more jobs.¹⁸⁶ The Ministry of Environment and Tourism of Namibia includes gender in the Environmental Impact Assessment to address issues at an early stage of project planning and explore means to reduce adverse impacts on women. It realises that women are disproportionately affected by adverse consequences of developmental processes

174 South Africa Report (n 122).

175 Republic of Togo 6th, 7th and 8th Periodic Reports of the state of Togo on the Implementation of the African Charter on Human and Peoples' Rights (article 62 of the Charter) (2017).

176 Togolese Republic Report (n 175) 176.

177 Republic of Zimbabwe Report (n 123) 97.

178 Kenya Report (n 152) para 282.

179 South African *Land Reform Gender Policy: a gendered analysis of land reform policy and implementation outcome in South Africa* (2006-2008) 32.

180 Law 11-020 of 15 September 2011; Democratic Republic of Congo Report (n 129) para 305.

181 Enterprise Seychelles Agency Act 3 of 2018.

182 Democratic Republic of Congo Report (n 129) paras 300 & 301.

183 Nigeria Report (n 154) 138.

184 Kenya Report (n 152) para 282.

185 Algeria Report (n 125).

186 Burkina Faso Report (n 124) para 344.

through displacement or relocation, loss of livelihood and reduction in access to natural resources, environmental degradation and increased pollution levels.¹⁸⁷ In Cameroon, women participated in designing the ‘Women and Sustainable Energy Programme’. The programme connects women with sustainable electrification solutions through solar energy. The government has promoted women’s participation by designating female mayors in Cameroon’s city councils as project managers.¹⁸⁸ In Lesotho, women retailers are sensitised on the consequences of using non-biodegradable plastic bags and the use of butane gas to reduce pressure on forest resources and ensure well-being as intended by article 18(2)(b).¹⁸⁹ The foregoing activities showcase that states are researching and investing in renewable energies and that concrete actions are being taken in some states to reduce pollution and promote the transition to renewable energies. Also, the focus of programmes of the mentioned states on women aligns with the object of article 18(2)(b) of the Maputo Protocol on the facilitation of women’s access and control of technologies associated with renewable energies. However, necessary measures, including consultation, are yet to be implemented to ensure that transitioning to renewable energies does not adversely affect female workers in the non-renewable energy sector.

Some states’ reports on administrative measures do not exactly reflect the state of affairs or explain how those measures relate to women. For instance, as reported, The Kingdom of Eswatini Strategic Road Map (2019-2023) charts strategies for achieving sustainable development.¹⁹⁰ However, the content of the plan has little reference to the environment or the role of women. Yet, one would expect such a report to indicate the place of women’s indigenous knowledge system in line with article 18(2)(c). A lack of reference to women’s indigenous knowledge signals that women’s contribution in that area is not properly recognised. It also underscores that the key role of women ‘in the generation, conservation, and sustainable use of biological diversity and associated knowledge’ is sometimes ignored. Similarly, it is unlikely that a state that does little to document women’s contribution to indigenous knowledge of the environment will ensure that they benefit from earnings that accrue from the use of such knowledge.

In relation to article 18(2)(d) and (e) dealing with domestic and toxic wastes, states have engaged in general activities, as shown in their reports. The Republic of Seychelles documents that its Ministry of Environment, Energy and Climate Change undertakes measures to promote the protection, preservation, waste management and improvement of the environment. It refers to its Disposal and Waste Management Agency which considers international instruments such as the Basel Convention relating to the regulation of disposal of hazardous toxic waste.¹⁹¹ As reported, DRC promotes hygienic latrines, and waste management systems to fight against disease vectors and pollution, as well as education, information and communication for behavioural change.¹⁹² Algeria adopted financial and tax measures to encourage the development of waste reclamation and use.¹⁹³ While the foregoing information is crucial to the object of article 18(2)(d) and (e), it is without clear reference to how this measure relates to women. This information is general and not disaggregated. No concrete measures toward meeting the specific goals in relation to women as outlined in article 18(2)(d) and (e) were reported. Also, it is not clearly provided what national standards are being implemented or strengthened to address the detrimental effects of ‘toxic, and other hazardous substances and wastes on women’.

187 Namibia Report (n 153) para 30(2).

188 Republic of Cameroon Single Report Comprising the 4th, 5th and 6th Periodic Reports of Cameroon relating to the African Charter on Human and Peoples’ Rights and 1st Reports relating to the Maputo Protocol and the Kampala Convention (2020) para 894.

189 Lesotho Report (n 126).

190 Kingdom of Eswatini Report (n 140) para 192.

191 Republic of Seychelles Report (n 127) para 18.

192 Democratic Republic of Congo (n 129) para 303.

193 Algeria Report (n 125) para 409.

Nor is it elaborated on what incentives are being implemented by different stakeholders to prevent or abate its adverse consequences on women.

5.3 Judicial measures

The reports by states rarely include judicial decisions that are peculiar to women in the context of article 18 of the Maputo Protocol. For instance, the recent reports of Zambia,¹⁹⁴ DRC,¹⁹⁵ Zimbabwe,¹⁹⁶ Algeria¹⁹⁷ and Sudan¹⁹⁸ do not report any case or judicial measures on environmental matters. A possible reason is that there may not be a case yet, specifically on article 18 of the Maputo Protocol.

However, some of the reports, for example, from Nigeria¹⁹⁹ and Kenya,²⁰⁰ make reference to cases on general environmental protection that do not specifically relate to women. Nigeria reports the case of *Gbemre v Shell*,²⁰¹ an action that was successfully brought on behalf of Iweherekan Community Delta State. The community sought a declaration that the constitutionally guaranteed fundamental rights to life and dignity of the human person provided in sections 33(i) and 34(i) of the Constitution of Federal Republic of Nigeria 1999 include the right to a clean, poison-free, pollution-free and healthy environment. The court declared the actions of the 1st and 2nd respondents in continuing to flare gas in the course of their oil exploration and production activities in the applicant community as a violation of their fundamental right to life (including a healthy environment) and dignity of the human person guaranteed by the Constitution and the African Charter.²⁰² Although instituted by a male litigant, the decision has a positive impact on the benefit of the community as a whole and for the environment. However, the court did not emphasise how the issue affects women in particular despite the general knowledge that women bear a disproportionate share of environmental impact.

Kenya reports on measures being taken to implement the decision of the African Commission in *Endorois*.²⁰³ These include the establishment of a task force to study the decision and examine potential environmental impacts on the surrounding Lake Bogoria.²⁰⁴ However, owing to budgetary constraints, the task force did not complete its mandate, and its term was not extended.²⁰⁵ These cases relate only tangentially to article 18. The subject matter of article 18 has not been a popular subject of litigation in state courts.

194 Zambia 'Initial Report on the African Charter on Human and Peoples' Rights, 1986-2004' (2007) 160.

195 Democratic Republic of Congo (n 135).

196 Republic of Zimbabwe Report (n 129).

197 Algeria Report (n 131).

198 Sudan Report (n 134).

199 Nigeria Report (n 160).

200 Kenya Report (n 158).

201 *Jonah Gbemre v Shell SPDC, NNPC and AGF* (2005) AHRLR 151 (Nig. FHC 2005), (S. No.FHC/B/CS/53/05 Federal High Court Benin Judicial Division. 14 November 2005).

202 Federal Republic of Nigeria's 6th Periodic Country Report: 2015-2016 on the Implementation of the African Charter on Human And Peoples' Rights in Nigeria (2017) 144.

203 *Minority Rights Development (Kenya) and Minority Rights Group International obo Endorois Welfare Council v Kenya (Endorois)* (2009) AHRLR 75 (ACHPR 2009).

204 Kenya Report (n 152).

205 Kenya Report (n 152) 144.

5.4 Implementation challenges

General and specific challenges inhibit the implementation of article 18 of the Maputo Protocol. General problems do not focus specifically on women and the environment but have implications for their general enjoyment of rights, including the right to a healthy and sustainable environment. For instance, discriminatory cultural practices are listed as a challenge to the general enjoyment of women's rights in Ethiopia,²⁰⁶ Togo,²⁰⁷ Gabon,²⁰⁸ Liberia,²⁰⁹ Senegal,²¹⁰ and the Seychelles.²¹¹ Another example is women's poor representation and participation in decision-making positions and processes, as noted in the Concluding Observations on Gabon,²¹² Liberia,²¹³ and Togo.²¹⁴ The Concluding Observations on Seychelles²¹⁵ and Gabon highlight the lack of gender-disaggregated data.²¹⁶ The implication of these general challenges on women's right to a sustainable environment cannot be overstated. Without the participation of women, for instance; it is difficult for them to engage openly with issues affecting their enjoyment of the right to sustainable environment. They will also not be able to contribute meaningfully to interventions.

Another general challenge, as noted in the Lesotho initial report, is the lack of awareness of human rights, particularly women's rights.²¹⁷ According to the DRC, general difficulties in the implementation of the Maputo Protocol include limited 'purchasing power of consumers', limited investments in agriculture, poor financing, dualistic and unstable land regimes between the law and traditional authority, and deteriorating living conditions in rural areas.²¹⁸ Even if the reference was not explicitly mentioned in the report while citing these challenges, the foregoing areas of concern would touch on access to and sustainable use of natural resources, which are key aspects of article 18(2)(a) of the Maputo Protocol, hence, it is useful to accept the concerns as problematic for the implementation of women right to a sustainable environment.

Specific challenges are, however, mentioned in relation to the environment's discernible lack of adequate information, awareness and framework about the importance of environmental issues are

206 African Commission Concluding Observations and Recommendations on the 5th and 6th Periodic Report of the Federal Democratic Republic of Ethiopia, adopted at its 18th extraordinary session 29 July to 7 August 2015, para 27.

207 African Commission Concluding Observations and Recommendations on the Combined 3rd, 4th and 5th Periodic Report of the Republic of Togo, adopted at its 51st ordinary session 18 April to 2 May 2012, para 36.

208 African Commission Concluding Observations and Recommendations on the Initial and Combined Report of the Gabonese Republic on the Implementation of the African Charter on Human and Peoples' Rights (1986-2012) para 35.

209 African Commission Concluding Observations and Recommendations on the Initial Periodic Report of the Republic of Liberia on the Implementation of the African Charter on Human and Peoples' Rights, para 19.

210 African Commission Concluding Observations and Recommendations on the Combined Periodic Report of the Republic of Senegal on implementation of the African Charter on Human and Peoples' Rights' adopted during its 18th extraordinary session 29 July to 7 August 2015 para 51.

211 African Commission Concluding Observations on the Combined Initial to Fifth Periodic Reports of Seychelles CEDAW/C/SYC/CO/1-5, 29 October 2013 para 42.

212 Concluding Observations on Gabon (n 208) para 35.

213 Concluding Observations on Liberia (n 209) para 19.

214 Concluding Observations on Togo (n 207) para 66.

215 Concluding Observations on Seychelles (n 211) para 42.

216 Concluding Observations on Gabon (n 208) para 65.

217 Lesotho Report (n 126).

218 Democratic Republic of Congo (n 129) para 275.

mentioned as areas of concern in the Concluding Observation on Eswatini,²¹⁹ Rwanda,²²⁰ Nigeria,²²¹ and Sierra Leone.²²² Non-regard for environmental standards is listed as a challenge by Gabon.²²³ A major feature of these Concluding Observations is that, although they deal with the environment, women are not the specific focus. Issues raised in the Concluding Observations are, however, relevant to the participation of women in the ‘planning, management and preservation of the environment’ according to article 18(1) of the Maputo Protocol. Similarly, the African Commission notes that ‘inadequate mobilization of domestic resources and budgetary provisional resources’ is a major challenge to the implementation of women’s priority programs in Senegal.²²⁴ Generally, states do not report the paucity of private and public interest-based litigation on environmental matters facing women as a challenge to implementation.

6 Conclusion

Article 18 of the Maputo Protocol can contribute to the enjoyment of the human rights of women in Africa if effectively implemented. Much remains to be done by states to improve the participation of women at higher levels of decision-making in planning, management and preservation of the environment and the sustainable use of natural resources. This is contrary to what is envisaged under article 18(a) of the Maputo Protocol. There is an incremental implementation of some of its components on the promotion of renewable energy sources, which impacts their exposure to household pollution. Despite its significance, it is not clear what concrete steps are being taken by states to promote indigenous knowledge systems of women as required by article 18(c). States have taken general measures to implement article 18(e), but there is little evidence on how these measures have specifically benefitted women. Concrete measures on domestic and industrial wastes with a particular focus on women are rare. The implementation measures are taken on the realisation of article 18 fall short of the expectation of the elements of the provision.

The jurisprudence around the various issues in article 18 remains undeveloped. General awareness about the content of the article is a concern. Also, whereas there have been cases of environmental issues, these are general. It is difficult to see in any of the reviewed countries an application brought by a woman or NGO representative. The subject matter of cases found during the review hardly touched specifically on women’s rights issues. Overall, the various elements of article 18 of the Protocol are not yet tested in the courtroom, despite reported attempts by states to fulfil their obligations under this article on the protection of the right of women to a healthy and sustainable environment in Africa.

There is a need for more awareness about the significance of article 18 at both regional and national levels of environmental governance. The reporting guidelines and engagement should focus on and demand data on implementing all specific aspects of article 18 of the Maputo Protocol. Concluding Observations should clarify what is missing and must be addressed with a clear focus on women and the environment. Also, advocacy around article 18 needs to improve. A possible way to encourage advocacy is to empower women’s rights NGOs to include litigation on the right to environment in their

219 Eswatini Report (n 140).

220 African Commission Concluding Observations and Recommendations on the Combined 11th, 12th, and 13th Periodic Report of the Republic of Rwanda under the African Charter on Human and Peoples’ Rights and Initial Report under the Protocol to the African Charter on Human and Peoples’ Right on the Rights of Women in Africa, para 42.

221 African Commission Concluding Observations and Recommendations on the 5th Periodic Report of the Federal Republic of Nigeria on the Implementation of the African Charter on Human and Peoples’ Rights’ adopted during its 57th ordinary session 4 to 18 November 2015, 130(iii).

222 Concluding Observations and Recommendations on the Initial and Combined Periodic Report of the Republic of Sierra Leone on the Implementation of the African Charter on Human and Peoples’ Rights adopted during its 19th extraordinary session 16 to 25 February 2016, para 82.

223 Concluding Observations on Gabon (n 208) para 64.

224 Concluding Observations on Senegal (n 210) para 6.

advocacy programs. Also, women's voices should be heard more in environmental decision-making. Some affirmative action that ensures fair representation of women at all levels of environmental governance is required to achieve that end. Doubtless, women have a role to play in advocacy for environmental conservation. For example, Wangari Maathai (the Nobel Peace Prize winner) founded the Green Belt Movement, which by 2019 had planted over 51 million trees in Kenya and mobilised hundreds of women to implement sustainable livelihoods approach into their own management of land and natural resources and advocated for policy measures to incentivise and promote indigenous knowledge systems into environmental conservation.

One practically achievable measure is to develop a register of indigenous knowledge systems at all levels of environmental governance. This will allow for shared best practices and appropriate incentives to be provided. Another measure that can be taken is to create incentives through implementing benefit sharing from the use of indigenous knowledge systems. There is a need for the commissioning of research projects on the effects of toxic industrial waste on women and specific or tailor-made guidelines for their protection. The Maputo Protocol offers great hope for the realisation of women's right to a healthy and sustainable environment, but much remains to be done in order for this hope to translate into lived realities for women in Africa.