

**Nurturing Our Environment for Sustainable Development**

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**Kariuki Muigua, Ph.D.**

# Nurturing Our Environment for Sustainable Development

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2. Dr. Mohiuddin Farooque v Bangladesh, represented by the Secretary, Ministry of Irrigation, Water Resources and Flood Control and Others, 48 DLR 1996 (SC Bangladesh, 1996).
3. Friends of Lake Turkana Trust v Attorney General & 2 others, [2014] eKLR, ELC Suit No. 825 of 2012.
4. Gabčíkovo-Nagymaros Project (Hungary/Slovakia), Judgment of 25 September 1997, International Court of Justice, Communiqué (unofficial) No. 97/10 bis of 25 September 1997 and Judgement. Both available from the ICJ Internet Home Page (<http://www.icj-cij.org/docket/files/92/7375.pdf> [Accessed on 27/08/2016])
5. GATT Panel Report, United States – Restrictions on Imports of Tuna, DS29/R, 16 June 1994, unadopted.
6. Greenhouse Management Limited v Jericho Development Company Limited [2015] eKLR, Civil Case No. 49 of 2015.
7. ICJ Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, I.C.J. Reports 1996, p. 241.
8. In The Matter of the National Land Commission [2015] eKLR.
9. John Kamau Kenneth I Mpapale v City Council of Nairobi & 7 others [2014] eKLR, Formerly Petition No. 63 of 2012 Now ELC No. 867 OF 2012.
10. Joseph Leboo & 2 others v Director Kenya Forest Services & another [2013] eKLR, Environment and Land No. 273 of 2013.
11. Joseph Letuya & 21 others v Attorney General & 5 others [2014] eKLR, ELC Civil Suit No. 821 of 2012 (OS).
12. Joseph Owino Muchesia & another v Joseph Owino Muchesia & another [2014] eKLR.
13. K. Ramakrishnan and Others v State of Kerala and Others (smoking case), AIR 1999 Ker 385.
14. Kenya Plantation & Agricultural Workers Union v Maji Mazuri Flowers Ltd [2012] eKLR, Cause No. 1365 of 2011.
15. Kimani v Gikanga, Court of Appeal for Eastern Africa, [1965] E.A. 735.
16. López Ostra v. Spain, 303 Eur. Ct. H.R. 41 (1994).
17. Pastor James Jessie Gitahi & 202 others v Attorney General, [2013] eKLR, Petition No. 683 of 2009.
18. Peter K. Waweru v Republic, [2006] eKLR, Misc. Civil Application No. 118 of 2004.
19. Republic v Lake Victoria South Water Services Board & another [2013] eKLR, Miscellaneous Civil Application No. 47 of 2012.
20. Said Tahir & 2 others v County Government of Mombasa & 5 others, [2015] eKLR, Petition No. 6 of 2015.
21. Stephen Kiprotich Saina v Francisco Okutoyi Ayot & another [2014] eKLR, E&L 348 of 2013.
22. Subhash Kumar v State of Bihar, AIR 1991 SC 420, 1991 (1) SCC 598.

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23. The Environmental Action Network Ltd v Attorney General & NEMA, Misc. Application No. 39 of 2001 (High Court of Uganda).
24. The Matter of the Principle of Gender Representation in the National Assembly and the Senate [2012] eKLR.
25. Timothy Otuya Afubwa & another v County Government of Trans-Nzoia & 3 others [2015] eKLR.
26. Trail Smelter Arbitration (United States v Canada), Arbitral Trib., 3 U.N. Rep. Int'l Arbitration Awards 1905 (1941).
27. United States — Import Prohibition of Certain Shrimp and Shrimp Products, the “shrimp-turtle” case, (WTO case Nos. 58 and 61, Ruling adopted on 6 November 1998. Case brought by India, Malaysia, Pakistan and Thailand).
28. United States — Standards for Reformulated and Conventional Gasoline, (WTO case Nos. 2 and 4. Ruling adopted on 20 May 1996. Case brought by Venezuela and Brazil.).
29. US—Gasoline case, WTO Appellate Body Report, DSR 1996.
30. *Wiwa v. Royal Dutch Petroleum Co.*, 226 F.3d 88 (2d Cir. 2000), cert. denied, 532 U.S. 941(2001).

# Nurturing Our Environment for Sustainable Development Nurturing Our Environment for Sustainable Development<sup>1</sup>

**Kariuki Muigua\***

## **Abstract**

*The central themes in this paper revolve around environmental resources management with the aim of achieving sustainable development. It is based on the idea that environment and its natural resources are a heritage that should be managed, conserved and protected not only for the sake of the current generation, but also for future generations. Environment affects all the life on earth in various ways, be it directly or indirectly. The environment and the resources therein must be carefully nurtured to ensure that their health is not sacrificed at the altar of national development.*

*The argument is that there should be a paradigm shift from over-reliance on natural resources to curb environmental degradation and resource depletion. This may be achieved through such ways as scientific innovation and creativity, amongst other means of supporting community livelihood, which should be encouraged. Easing the pressure on the environment through diversification of livelihood means is essential to facilitate protection, conservation and replenishment of the environment and the resources therein. Kenya has already launched a roadmap to guide the process of achieving the sustainable development goals.<sup>2</sup> The discourse is therefore relevant both in the broader arena and the Kenyan context.*

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\*PhD in Law (Nrb), FCIArb (Chartered Arbitrator), LL.B (Hons) Nrb, LL.M (Environmental Law) Nrb; Dip. In Law (KSL); FCPS (K); MKIM; Accredited Mediator; Consultant: Lead expert EIA/EA NEMA; BSI ISO/IEC 27001:2005 ISMS Lead Auditor/ Implementer; Advocate of the High Court of Kenya; Senior Lecturer at University of Nairobi School of Law and the Centre for Advanced Studies in Environmental Law & Policy (CASELAP), University of Nairobi [ May, 2017].

<sup>1</sup> The ideas in this paper are captured and discussed in more details in a book by the same author, titled, Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016). The paper, therefore, offers an overview of the subject and the reader can get the details and comprehensive discussion on the various concepts in this book.

<sup>2</sup> Expogroup, 'Kenya to Set Out Roadmap for Achieving SDGs,' Wednesday , 14th September 2016, available at [http://expogr.com/detail\\_news.php?newsid=3596&pageid=2&t=Kenya%20to%20Set%20Out%20Roadmap%20for%20Achieving%20SDGs](http://expogr.com/detail_news.php?newsid=3596&pageid=2&t=Kenya%20to%20Set%20Out%20Roadmap%20for%20Achieving%20SDGs) [Accessed on 20/09/2016].

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## 1. Introduction

This paper argues that the environment should be nurtured while human beings pursue development. Development should therefore be sustainable, taking care of ecological and anthropocentric concerns. Some of the running themes that are informed by the anthropocentric approach to environmental management include Poverty Eradication, Food Security, Environmental Democracy, Environmental Justice, Environmental Security, Public Participation, Gender Equity, Access To Information, Conflicts Management, amongst others. All these themes are discussed within the broader theme of human rights, while emphasising the special relationship between human rights and the environment. Ecocentric arguments inform the discussion on themes such as combating climate change, impact of resource extraction, environmental health, and environmental conservation for the sake of the Mother Nature. However, promoting such rights as the right to a clean and healthy environment has both anthropocentric and ecocentric benefits and should therefore be pursued.

While the paper highlights the role of law in facilitating environmental protection, there is also an emphasis on the need to move beyond the law in looking for answers to the challenges facing sustainable environmental management.

## 2. Environment and Sustainable Development

The term ‘environment’ is defined as all the physical, chemical and biological factors external to a person, and all the related behaviour.<sup>3</sup> The *Draft International Covenant on Environment and Development*<sup>4</sup> defines environment to mean “the totality of nature and natural resources, including the cultural heritage and infrastructure essential for social-economic activities.”<sup>5</sup> Environment has also been defined as “...the whole complex of climatic, adaptive and biotic factors that act upon an organism or an ecological community and

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<sup>3</sup> World Health Organization, “Preventing disease through healthy environments,” (World Health Organization, Geneva, 2006).

<sup>4</sup> International Union for Conservation of Nature and Natural Resources Environmental Policy and Law, *Draft of the Joint Working Group convened by the Commission on Environmental Law (CEL) of the World Conservation Union (IUCN) and the International Council on Environmental Law (ICEL)*, Paper No. 31 Rev. 3, 4<sup>th</sup> Ed., 2010.

<sup>5</sup> Draft of the Joint Working Group convened by the Commission on Environmental Law (CEL) of the World Conservation Union (IUCN) and the International Council on Environmental Law (ICEL), 1991; See also *Environment and Land Court Act, 2011*, No 19 of 2011, Laws of Kenya, s.2.

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ultimately determine its form or survival; the aggregate of social and cultural conditions that influence the life of an individual or a community...”<sup>6</sup> The European Commission also proffered a definition of ‘environment’ as ‘the combination of elements whose complex inter-relationships make up the settings, the surroundings and the conditions of life of the individual and of society as they are and as they are felt’.<sup>7</sup> Close to home, the *Environmental Management and Coordination Act (EMCA)*<sup>8</sup>, defines “environment” to include; the physical factors of the surroundings of human beings including land, water, atmosphere, climate, sound, odour, taste, the biological factors of animals and plants and the social factor of aesthetics and includes both the natural and the built environment.<sup>9</sup>

Development has several dimensions which include: Economic development, that is, improvement of the way endowments and goods and services are used within (or by) the system to generate new goods and services in order to provide additional consumption and/or investment possibilities to the members of the system; Human development, that is, people-centred development, where the focus is put on the improvement of the various dimensions affecting the well-being of individuals and their relationships with the society (health, education, entitlements, capabilities, empowerment etc.); Sustainable development, that is, development which considers the long term perspectives of the socio-economic system, to ensure that improvements occurring in the short term will not be detrimental to the future status or development potential of the system. In other words, development will be “sustainable” on environmental, social, financial and other grounds; and Territorial development, that is, development of a specific region (space) achievable by exploiting the specific socio-economic, environmental and institutional potential of the area, and its relationships with external subjects.<sup>10</sup>

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<sup>6</sup> Webster’s *New World Dictionary* 3<sup>rd</sup> ed (Cleveland College, Cleveland, 1998), p.454; See also Birnie, P. et al, *International Law & the Environment*, (3<sup>rd</sup> ed., Oxford University Press, Oxford, 2009), p. 3.

<sup>7</sup> Council Regulation (EEC) No. 1872/84 on Action by the Community Relating to the Environment, OJL 176 (1984) 1. (As quoted in Birnie, P. et al, *International Law & the Environment*, (3<sup>rd</sup> ed., Oxford University Press, Oxford, 2009), p. 5).

<sup>8</sup> *Environmental Management and Coordination Act (EMCA)*, Act No. 8 of 1999, Laws of Kenya; See also *Environmental Management and Coordination (Amendment) Act*, 2015).

<sup>9</sup> *Ibid*, s.2.

<sup>10</sup> Bellù, L.G., ‘Development and Development Paradigms: A (Reasoned) Review of Prevailing Visions,’ (Food and Agriculture Organization of the United Nations, May 2011), p.3. Available at



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Notably, the relationship between development and environment gave birth to the sustainable development concept, whose central idea is that global ecosystems and humanity itself can be threatened by neglecting the environment.<sup>11</sup> Scholars have observed that since environmental economists are concerned that the long-term neglect of the environmental assets is likely to jeopardize the durability of economic growth, and sustainable development therefore “involves maximizing the net benefits of economic development, subject to maintaining the services and quality of natural resources over time”.<sup>12</sup> Its concern is about balancing the objectives of economic growth and attending to environmental considerations. Sustainable development aims to improve the quality of life in a comprehensive manner, including economic prosperity, social equity and environmental protection. Economic, social, environmental and cultural aspects must be integrated in a harmonious manner to enhance the intergenerational well-being.<sup>13</sup>

The *World Charter for Nature*<sup>14</sup>, was partly informed by the conviction that the benefits which could be obtained from nature depends on the maintenance of natural processes and on the diversity of life forms and that those benefits are jeopardized by the excessive exploitation and the destruction of natural habitats.<sup>15</sup>

Considering that each state has exclusive jurisdiction within its territory and people and permanent sovereignty over the natural resources therein, as far as international law is concerned, sustainable management and governance of world resources can only be achieved through the concerted efforts of each state taking care of the environmental resources falling within the confines of their sovereign territory.

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[http://www.fao.org/docs/up/easypol/882/defining\\_development\\_paradigms\\_102EN.pdf](http://www.fao.org/docs/up/easypol/882/defining_development_paradigms_102EN.pdf)  
[Accessed on 02/09/2016].

<sup>11</sup> ‘Theories of Economic Development,’ p. 14. Available at [www.springer.com/cda/content/document/cda\\_downloaddocument/9789812872470-c2.pdf?SGWID=0-0-45-1483317-p177033406](http://www.springer.com/cda/content/document/cda_downloaddocument/9789812872470-c2.pdf?SGWID=0-0-45-1483317-p177033406) [Accessed on 02/09/2016].

<sup>12</sup> Ibid.

<sup>13</sup> Ibid; See also generally, Chambers, R., *Sustainable Livelihoods, Environment and Development: Putting Poor Rural People First*, IDS Discussion Paper 240, Brighton: IDS, 1987. Available at <https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/875/rc279.pdf?sequence=1&isAllowed=y>

<sup>14</sup> UN General Assembly, *World Charter for Nature*, 28 October 1982, A/RES/37/7.

<sup>15</sup> Ibid, Preamble.

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### 3. Environmental Sustainability and Sustainable Development: The Framework

There are a number of international and regional legal and regulatory instruments within international environmental law that are geared towards promoting environmental sustainability, and sustainable development, in general. Some of the major ones have been highlighted in this section.<sup>16</sup>

The *Ramsar Convention (1973)*<sup>17</sup> is an intergovernmental treaty whose mission is the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world.<sup>18</sup> It is the overarching international legal instrument that should inform state parties' legal framework on wetlands conservation and use.

Wetlands play an important role in ensuring environmental stability and health and thus, this Convention is important in helping countries come up with measures on how to counter impending threats to these resources. As reservoirs for water and nutrients, wetlands serve the human beings, animals and plants. It therefore, follows that improved health of the wetland resources is necessary in achieving environmental health and security for both anthropocentric and ecocentric reasons. Member States have obligations under the Ramsar Convention relating to promotion of sustainable management and utilisation of wetlands resources.

Another important international instrument on environment is the 1992 *Rio Declaration on Environment and Development*.<sup>19</sup> This Declaration sought to balance the interests of states in exploiting their natural resources for development and environmental conservation with the aim of achieving sustainable development.<sup>20</sup> The *Rio Declaration* sought to promote the usage of

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<sup>16</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), Chapter one for full discussion.

<sup>17</sup> Convention on Wetlands of International Importance especially as Waterfowl Habitat, 996 UNTS 245; TIAS 11084; 11 ILM 963 (1972).

<sup>18</sup> Ramsar Convention Secretariat, 2013. *The Ramsar Convention Manual: a guide to the Convention on Wetlands* (Ramsar, Iran, 1971), 6th ed. Ramsar Convention Secretariat, Gland, Switzerland.

<sup>19</sup> UN Doc. A/CONF.151/26 (vol. I) / 31 ILM 874 (1992).

<sup>20</sup> Principle 2 thereof recognises that states have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction. Principle 3 is to the effect that the

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natural resources for development but within the practices that promote sustainable development.

*Agenda 21*<sup>21</sup> was adopted in 1992 with the aim of combating the problems of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which the human race depend for their well-being. Further, it sought to deal with the integration of environment and development concerns and greater attention to them which would lead to the fulfillment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future.<sup>22</sup> The aim was to achieve a global consensus and political commitment at the highest level on development and environment cooperation.

The *Convention on Biological Diversity*<sup>23</sup> was negotiated with the objective of promoting the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilization of genetic resources.<sup>24</sup> The provisions of this Convention should generally inform domestic laws on genetic resources conservation and benefit sharing framework on the accruing benefits in the member states, with the aim of ensuring that communities participate in conservation measures but also benefit from such resources.<sup>25</sup>

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right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

<sup>21</sup> (A/CONF.151/26, vol.II), United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992, Agenda 21.

<sup>22</sup> Ibid, Preamble.

<sup>23</sup> 1992 Convention on Biological Diversity, [1993] ATS 32 / 1760 UNTS 79 / 31 ILM 818 (1992).

<sup>24</sup> Article 1.

<sup>25</sup> Article 6 of the *Convention on Biological Diversity* provides that each Contracting Party should, in accordance with its particular conditions and capabilities: develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which should reflect, inter alia, the measures set out in the Convention relevant to the Contracting Party concerned; and integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies. An integrated approach to conservation and sustainable use of biological diversity holds a key to ensuring that all the relevant stakeholders in member states get to work together to achieve biological resource conservation and restoration. With such guidelines as provided by the Convention, it is possible for the international community to collaborate in biological diversity conservation and use, especially in the case of transboundary resources.

Article 7 thereof also states that each Contracting Party should identify components of biological diversity important for its conservation and sustainable use, and monitor those components, particularly those requiring urgent conservation measures and those which offer the greatest

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The *United Nations Conference on Sustainable Development* ("Rio+20")<sup>26</sup> which took place in Rio de Janeiro, Brazil in June 2012, saw governments *inter alia* 'renew their commitment to sustainable development and to ensure the promotion of an economically, socially and environmentally sustainable future for the planet and for present and future generations. This would involve eradicating poverty which they recognised as the greatest global challenge facing the world today and an indispensable requirement for sustainable development. In this regard they therefore, committed themselves to freeing humanity from poverty and hunger as a matter of urgency.<sup>27</sup>

The *Convention on the Non-Navigational Use of Watercourses*<sup>28</sup> applies to uses of international watercourses and of their waters for purposes other than

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potential for sustainable use. They should also identify and monitor processes and activities likely to have significant adverse impacts on the conservation and sustainable use of biological diversity, and maintain and organise data derived from monitoring. In identifying such components, states are able to ensure the conservation and sustainable use of those resources. However, for them to do so, they ought to bring on board all the relevant stakeholders, namely, communities, scientists, and regulators, amongst others to make the work easier and comprehensive. International cooperation in such projects is also important for purposes of sharing scientific knowledge and research outcome. The net effect would be enhanced environmental security, not only for the good of the concerned people but also for improved environmental health.

<sup>26</sup> United Nations, *Report of the United Nations Conference on Sustainable Development*, Rio de Janeiro, Brazil 20–22 June 2012, A/CONF.216/16.

<sup>27</sup> *Ibid*, Article 1.2. Under Article 1.6, the Rio+20 Report reiterated that people are at the centre of sustainable development and in this regard, it urges state parties strive for a world that is just, equitable and inclusive. They also committed to work together to promote sustained and inclusive economic growth, social development and environmental protection and thereby to benefit all. Further, under Article 1.8 thereof, State parties also reaffirmed the importance of freedom, peace and security, respect for all human rights, including the right to development and the right to an adequate standard of living, including the right to food, the rule of law, gender equality, women's empowerment and the overall commitment to just and democratic societies for development. The two main themes at the Conference were: how to build a green economy to achieve sustainable development and lift people out of poverty; and how to improve international coordination for sustainable development.

The implication of the foregoing assertions is that sustainable development agenda may not be achieved as long as states approach the same in a disintegrated manner, especially by creating governmental departments that do not work together. The discussion is one that transcends sectoral approach to issues and requires issues of development and environmental conservation be treated as mutually inclusive.

<sup>28</sup> *Convention on the Non-Navigational Use of Watercourses*, Adopted by the General Assembly of the United Nations on 21 May 1997. Entered into force on 17 August 2014. See General Assembly resolution 51/229, annex, Official Records of the General Assembly, Fifty-first Session, Supplement No. 49 (A/51/49).

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navigation and to measures of protection, preservation and management related to the uses of those watercourses and their waters.<sup>29</sup> There is an obligation under the Convention for the Watercourse States to, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse States.<sup>30</sup> There is also a general obligation for the Watercourse States to cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilisation and adequate protection of an international watercourse.<sup>31</sup>

It is important to recognise the need for joint efforts in conserving and protecting international watercourses since any negative effects would also be transnational and would affect different states. Although the Convention does not have binding effect on the parties, it provides a good framework within which parties can collaborate in ensuring environmental health of the international watercourses for the sake of both present and future generations.

The *Forest Principles*<sup>32</sup> state in the preamble that the subject of forests is related to the entire range of environmental and development issues and opportunities, including the right to socio-economic development on a sustainable basis. The guiding objective of these principles is to contribute to the management, conservation and sustainable development of forests and to provide for their multiple and complementary functions and uses.<sup>33</sup> According to these principles, forestry issues and opportunities should be examined in a holistic and balanced manner within the overall context of environment and development, taking into consideration the multiple functions and uses of forests, including traditional uses, and the likely economic and social stress when these uses are constrained or restricted, as well as the potential for development that sustainable forest management can offer.<sup>34</sup>

The *Forests Principles*, though non-legally binding, provide minimum guidelines on the efficient management, conservation and sustainable utilisation of forest resources for the current and future generations. Owing to their many

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<sup>29</sup> *Convention on the Non-Navigational Use of Watercourses*, Article 1.1.

<sup>30</sup> *Ibid*, Article 7.1.

<sup>31</sup> *Ibid*, Article 8.1.

<sup>32</sup> United Nations, *The Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (Forest Principles) A/CONF.151/26 (Vol. III)*.

<sup>33</sup> *Ibid*, Preamble.

<sup>34</sup> Preamble.

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uses, forest conservation and protection is important for the realisation of a healthy environment and eradication of poverty.<sup>35</sup>

At the United Nations Sustainable Development Summit on 25 September 2015, world leaders adopted *the 2030 Agenda for Sustainable Development*, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by the year 2030.<sup>36</sup> The 2030 Agenda for Sustainable Development<sup>37</sup> is a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom and was formulated in recognition that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development.<sup>38</sup>

The Sustainable Development Goals, otherwise known as the Global Goals, are to build on the Millennium Development Goals (MDGs), eight anti-poverty targets that the world committed to achieving by 2015.<sup>39</sup> The MDGs,

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<sup>35</sup> The Principles require countries to ensure that forest resources and forest lands are sustainably managed to meet the social, economic, ecological, cultural and spiritual needs of present and future generations. These needs are for forest products and services, such as wood and wood products, water, food, fodder, medicine, fuel, shelter, employment, recreation, habitats for wildlife, landscape diversity, carbon sinks and reservoirs, and for other forest products. As a result, appropriate measures should be taken to protect forests against harmful effects of pollution, including air-borne pollution, fires, pests and diseases, in order to maintain their full multiple value (Principle 2 (b)).

Notably, the Principles state that the vital role of all types of forests in maintaining the ecological processes and balance at the local, national, regional and global levels through, inter alia, their role in protecting fragile ecosystems, watersheds and freshwater resources and as rich storehouses of biodiversity and biological resources and sources of genetic material for biotechnology products, as well as photosynthesis, should be recognised (Principle 4).

The Principles also provide that national forest policies should recognize and duly support the identity, culture and the rights of indigenous people, their communities and other communities and forest dwellers. Further, appropriate conditions should be promoted for these groups to enable them to have an economic stake in forest use, perform economic activities, and achieve and maintain cultural identity and social organization, as well as adequate levels of livelihood and well-being through, inter alia, land tenure arrangements which serve as incentives for the sustainable management of forests (Principle 5 (a)).

<sup>36</sup> United Nations Development Programme, 'Sustainable Development Goals (SDGs),' available at <http://www.undp.org/content/undp/en/home/mdgoverview/post-2015-development-agenda.html> [Accessed on 24/10/2015].

<sup>37</sup> *Transforming our world: the 2030 Agenda for Sustainable Development*, Resolution adopted by the General Assembly on 25 September 2015, [without reference to a Main Committee (A/70/L.1)], Seventieth session, Agenda items 15 and 116, 21 October 2015.

<sup>38</sup> Ibid, Preamble.

<sup>39</sup> Ibid.

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adopted in 2000, aimed at an array of issues that included slashing poverty, hunger, disease, gender inequality, and access to water and sanitation. The new SDGs, and the broader sustainability agenda, go much further than the MDGs, addressing the root causes of poverty and the universal need for development that works for all people.<sup>40</sup>

The *2030 Agenda for Sustainable Development* provide that by 2030, countries should ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.<sup>41</sup> Further, by 2020, countries are to maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilisation of genetic resources and associated traditional knowledge, as internationally agreed.<sup>42</sup>

As far as natural resources and environmental governance within the African region is concerned, there is the *African Convention on the Conservation of Nature and Natural Resources*<sup>43</sup> which seeks: to enhance environmental protection; to foster the conservation and sustainable use of natural resources; and to harmonize and coordinate policies in these fields-with a view to achieving ecologically rational, economically sound and socially acceptable development policies and programmes.<sup>44</sup>

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<sup>40</sup> Ibid.

<sup>41</sup> Goal 2.4. The Agenda envisages a world in which every country enjoys sustained, inclusive and sustainable economic growth and decent work for all. To this end, it seeks to promote realisation of a world in which consumption and production patterns and use of all natural resources – from air to land, from rivers, lakes and aquifers to oceans and seas – are sustainable. Further, state parties committed to create a world in which democracy, good governance and the rule of law, as well as an enabling environment at the national and international levels, is essential for sustainable development, including sustained and inclusive economic growth, social development, environmental protection and the eradication of poverty and hunger. They also committed to realize a world in which development and the application of technology are climate-sensitive, respect biodiversity and are resilient. This is one in which humanity lives in harmony with nature and in which wildlife and other living species are protected (Agenda No. 9).

<sup>42</sup> Goal 2.5.

<sup>43</sup> African Union, *African Convention on the Conservation of Nature and Natural Resources*, OAU, 1001 UNTS 3.

<sup>44</sup> Ibid, Article I.

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There is also the *Bamako Convention*<sup>45</sup> which is an African region Convention aimed at preventing environmental pollution by hazardous wastes. The Convention obligates its member Parties to take appropriate legal, administrative and other measures, within the area under their jurisdiction, to prohibit the import of all hazardous wastes, for any reason, into Africa from non-Contracting Parties.<sup>46</sup> This is a Convention that is meant to ensure that even as African countries engage in development projects and international trade with countries outside the region, they do not engage in activities that adversely affect the environment.<sup>47</sup>

Chapter nineteen (Articles 111<sup>48</sup>, 112<sup>49</sup> and 114<sup>50</sup>) of the *East Africa Community Treaty*<sup>51</sup> calls for co-operation in environment and natural resources.

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<sup>45</sup> African Union, *Bamako Convention on the ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa*, 1991. Available at <http://www.jus.uio.no/lm/hazardous.waste.ban.afrian.import.bamako.convention.1991/portrait.pdf>

<sup>46</sup> Ibid, Article 4(1).

<sup>47</sup> Generally, the Convention's purpose is to: prohibit the import of all hazardous and radioactive wastes into the African continent for any reason; minimize and control transboundary movements of hazardous wastes within the African continent; prohibit all ocean and inland water dumping or incineration of hazardous wastes; ensure that disposal of wastes is conducted in an "environmentally sound manner"; promote cleaner production over the pursuit of a permissible emissions approach based on assimilative capacity assumptions; and establish the precautionary principle (UNEP, 'First Conference Of Parties To The Bamako Convention,' available at <http://www.unep.org/delc/BamakoConvention> [Accessed on 31/08/2016]).

<sup>48</sup> Article 111: Environmental Issues and Natural Resources

'The Partner States recognise that development activities may have negative impacts on the environment leading to the degradation of the environment and depletion of natural resources and that a clean and healthy environment is a prerequisite for sustainable development.'

<sup>49</sup> Article 112: Management of the Environment. 1. 'For purposes of Article 111 of this Treaty, the Partner States undertake to cooperate in the management of the environment and agree to: (a) develop a common environmental management policy that would sustain the eco-systems of the Partner States, prevent, arrest and reverse the effects of environmental degradation; (b) develop special environmental management strategies to manage fragile ecosystems, terrestrial and marine resources, noxious emissions and toxic and hazardous chemicals; (c) take measures to control trans-boundary air, land and water pollution arising from developmental activities; (d) take necessary disaster preparedness, management, protection and mitigation measures especially for the control of natural and man-made disasters. These include oil spills, bio-hazards, floods, earthquakes, marine accidents, drought and bush fires; and (e) integrate environmental management and conservation measures in all developmental activities such as trade, transport, agriculture, industrial development, mining and tourism in the Community.'

<sup>50</sup> Article 114: Management of Natural Resources. 1. For purposes of Article 111 of this Treaty, the Partner States agree to take concerted measures to foster co-operation in the joint and efficient management and the sustainable utilisation of natural resources within the Community for the mutual benefit of the Partner States.'



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The East Africa Community Treaty (EAC) Partner States are to take joint effort to co-operate in efficient management of these resources, with key priorities of the sector including climate change adaptation and mitigation, natural resource management and biodiversity conservation, disaster risk reduction and management, and pollution control and waste management.<sup>52</sup>

The foregoing legal instruments are meant to guide states in their efforts to achieve environmental sustainability, for the realisation of the bigger goal of attaining sustainable development. However, it is important to point out that these are just a few of the many legal and regulatory instruments, which are mostly sectoral, selected for illustration purposes.

### **4. National Obligations on Environment and Sustainable Development**

As already pointed out, it is noteworthy that most of the main international and regional legal and regulatory instruments on environment have spelt out mandatory obligations as well as non-binding guidelines on the international best practices in environmental matters. While some of these obligations and guidelines are meant to be applied directly, especially in relation to international environmental relations, others are meant to be incorporated into the domestic laws on environment or at least offer guidelines on the substantive and procedural contents of the domestic laws.

This can be exemplified using the Constitution of Kenya 2010, which provides that the general rules of international law should form part of the law of Kenya.<sup>53</sup> It also provides that any treaty or convention ratified by Kenya should form part of the law of Kenya under this Constitution.<sup>54</sup> In light of this, it is noteworthy that Kenya is a signatory to a number of international and regional legal and regulatory instruments on environment. The international community

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<sup>51</sup> East African Community, *the Treaty for the Establishment of the East African Community*, Arusha. EAC: 2002 xiv, 111p: 230mm (EAC Publication, No.1) ISBN: 9987 - 666-01-9 (amended 2006).

<sup>52</sup> EAC, 'Environment and Natural Resources,' *EAC's Environment Agenda: A Healthy Natural Environment for Present and Future Generations*.

Available at <http://www.eac.int/sectors/environment-and-natural-resources> [Accessed on 31/08/2016].

<sup>53</sup> Constitution of Kenya, 2010, Article 2(5).

<sup>54</sup> *Ibid*, Article 2(6); See also the *Treaty Making and Ratification Act, No. 45 of 2012*, which is an Act of Parliament to give effect to the provisions of Article 2(6) of the Constitution and to provide the procedure for the making and ratification of treaties and connected purposes. Notably, This Act applies to—(a) multilateral treaties; (b) bilateral treaties which deal with, inter alia, the environment and natural resources (s. 3(2)).

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thus expects Kenyan authorities and people in general, to promote and implement the internationally agreed best practices in environmental governance. These are the same expectations and obligations placed on other countries around the world, the only differences being special frameworks put in place for particular types of natural resources and environmental conditions.

*Agenda 21* tasks governments to do all that is necessary in giving communities a large measure of participation in the quest for sustainable management and protection of the local natural resources, in order to enhance their productive capacity.<sup>55</sup> Governments, with the assistance of and in cooperation with appropriate international, nongovernmental and local community organizations, are obligated to establish measures that will directly or indirectly, *inter alia*, rehabilitate degraded resources, to the extent practicable, and introduce policy measures to promote sustainable use of resources for basic human needs.<sup>56</sup>

The SDGs ought to inform the efforts of member states in achieving sustainable development, poverty eradication, and environmental conservation and protection. They offer an integrated approach, which is environmentally conscious, to combating the various problems that affect the human society as well as the environmental resources. It is expected that states efforts will be informed by the SDGs in the economic, social, political and environmental decisions. The Goals also provide an elaborate standard for holding countries accountable in their development activities. This way, environmental health is not likely to be sacrificed at the altar of economic development but will be part of the development agenda.

Article VIII of the *African Convention on the Conservation of Nature and Natural Resources* is to the effect that the Parties should take all necessary measures for the protection, conservation, sustainable use and rehabilitation of vegetation cover through *inter alia*: adopting scientifically-based and sound traditional conservation, utilization and management plans for forests, woodlands, rangelands, wetlands and other areas with vegetation cover, *taking into account the social and economic needs of the peoples concerned* (emphasis added), the importance of the vegetation cover for the maintenance of the water

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<sup>55</sup> Agenda 21, Clause 3.7(d).

<sup>56</sup> Agenda 21, Clause 3.8.

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balance of an area, the productivity of soils and the habitat requirements of species.<sup>57</sup>

This section alludes to the role of law in facilitating environmental protection especially at the global level, the impact of globalisation and trade development in international environmental law and sustainable development.<sup>58</sup> While the various instruments may vary in their applicability depending on the region, types of resources or environmental and climatic conditions, the bottom line is that countries are supposed to promote and ensure sustainable utilisation of the available resources for present and future generations, within the framework of sustainable development. To appreciate the differences that may exist due to varying group interests, different players, different types of resources, sustainable development agenda is informed and driven through a number of basic principles. These principles underlie and guide the formulation of the various international, legal and regulatory instruments on environmental matters, especially in relation to the substantive and procedural aspects therein.

## **5. Definition and Elements of Sustainable Development**

### **5.1 Definition of Sustainable Development**

It has been observed that the structures of imperial and colonial power which dominated the world in the nineteenth and early twentieth centuries made little provision for economic and social advance in what is now called the developing world.<sup>59</sup> This is because colonial regions functioned primarily to supply imperial powers with raw materials and cheap labour – including slave labour as late as the mid-nineteenth century.

However, by the end of the Second World War, perceptions and policy had changed drastically where economic and social improvement for the majority had become a major preoccupation of governments, and with the

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<sup>57</sup> Further, Article XX thereof which deals with capacity building, education and training, is to the effect that the Parties should, *inter alia*, promote environmental education, training and awareness creation at all levels in order to enhance their peoples' appreciation of their close dependence on natural resources and their understanding of the reasons and rules for the sustainable use of these resources.

<sup>58</sup> See Muigua, K., Kariuki, F., Wamukoya, D., *Natural Resources and Environmental Justice in Kenya*, (Glenwood Publishers, Nairobi – 2015), Chapter one for full discussion on the role of law in natural resources management.

<sup>59</sup> Harris, J.M., *Basic Principles of Sustainable Development*, Global Development and Environment Institute, Working Paper 00-04, June 2000, p.1. Available at [http://www.ase.tufts.edu/gdae/publications/working\\_papers/Sustainable%20Development.PDF](http://www.ase.tufts.edu/gdae/publications/working_papers/Sustainable%20Development.PDF) [Accessed on 25/08/2016]

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crumbling of colonial power relations this goal was extended to the poorer nations of the world.<sup>60</sup> Thus, economic development, human development, amongst other forms of development gained popularity the world over.

Sustainable development is believed to be one of a series of innovative concepts—following such antecedents as human development, equitable development, or appropriate development—that seek to broaden the scope of development theory from its narrow focus on economic growth.<sup>61</sup> It has been documented that the idea of “sustainable development” was born in 1713 when Carlowitz, while editing the first book on forest sciences, argued that timber would be “as important as our daily bread” and that it should be “used with caution in a way, that there is a balance between timber growth and lumbering”. This would allow forever a continuous, perpetual use.<sup>62</sup> The concept is also attributed to the International Union for Conservation of Nature and Natural Resources (IUCN) in 1980.<sup>63</sup>

The concept of sustainable development however, received increased international attention after the release of the *Report of the World Commission on Environment and Development: Our Common Future*.<sup>64</sup> The World Commission defined sustainable development as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’.<sup>65</sup> It has been observed that the definition by the Commission is anthropocentric (the “needs” refer to human needs not ecological needs), a stance that was reaffirmed in the Rio Declaration of the United Nations Conference on Environment and Development (UNCED; 1992) which stated that

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<sup>60</sup> Ibid, p.2.

<sup>61</sup> Working Group III (WGIII) of the Intergovernmental Panel on Climate Change (IPCC), ‘Setting the Stage: Climate Change and Sustainable Development,’ (IPCC, 2001). Available at <http://www.ipcc.ch/ipccreports/tar/wg3/index.php?idp=60> [ Accessed on 25/08/2016].

<sup>62</sup> Keiner, M., ‘History, Definition(s) and Models of “Sustainable Development”’, p. 1. Available at <http://e-collection.library.ethz.ch/eserv/eth:27943/eth-27943-01.pdf> [ Accessed on 25/08/2016].

<sup>63</sup> See ‘Chapter: 2 History of Sustainability, in *Sustainability and the U.S. EPA* (The National Academies Press, 2011), available at <http://www.nap.edu/read/13152/chapter/4> [Accessed on 25/08/2016]; See also Schwass, R.D., Introduction To Sustainable Development – *World Conservation Strategy of the International Union for the Conservation of Nature and Natural Resources (IUCN)*, (UNESCO – Encyclopedia of Life Support Systems (EOLSS), p.2. Available at <http://www.eolss.net/sample-chapters/c13/e1-45-02-05.pdf> [ Accessed on 25/08/2016].

<sup>64</sup> World Commission on Environment and Development, *Our common future*. Oxford, (Oxford University Press, 1987).

<sup>65</sup> Ibid, para. 27.

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“human beings are the centre of concerns for sustainable development”.<sup>66</sup> This is mainly an anthropocentric approach to sustainable development.

There is also another definition, which emphasizes the ecological dimensions of sustainability: Sustainability as a relationship between human economic systems and larger dynamic, but normally slower-changing ecological systems, in which (1) human life can continue indefinitely, (2) human individuals can flourish, and (3) human cultures can develop; but in which effects of human activities remain within bounds, so as not to destroy the diversity, complexity and function of the ecological life support system.<sup>67</sup>

It has correctly been observed that sustainability concerns manifest as resource depletion or absence, resource degradation, the deliberate or accidental damage of resources for short term gain, or as a misunderstanding of the complex interrelationships between resources.<sup>68</sup> Indeed, the need for sustainable development was well captured in the assertion that sustainable development is primarily a social justice project focusing on equitable development to meet human needs while still recognizing that the preservation of natural resources is necessary to fulfill these needs.<sup>69</sup> It is, therefore, arguable that the best approaches to sustainable development should establish a connection between the anthropocentric and ecocentric approaches in environmental matters.

The 2002 World Summit on sustainable Development in Johannesburg adopted a plan of implementation reiterating the Rio principles and establishing poverty eradication, sustainable consumption and production patterns and protection of the natural resource base for economic and social development as the three prime objectives (Johannesburg Plan).<sup>70</sup> It has been contended that human needs cannot be sufficiently met just by providing an ecologically stable

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<sup>66</sup> Principle 1, 1992 *Rio Declaration on Environment and Development*, UN Doc. A/CONF.151/26 (vol. I) / 31 ILM 874 (1992). Adopted at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil from 3-14 June, 1992.

<sup>67</sup> Faucheux, S., *Principles of Sustainable Development - Vol. III – ‘Summary Principles for Sustainable Development,’* p.2.

Available at <http://www.eolss.net/Sample-Chapters/C13/E1-46-06.pdf> [ Accessed on 27/08/2016].

<sup>68</sup> Thatcher, A., ‘Theoretical definitions and models of sustainable development that apply to human factors and ergonomics,’ in Broberg, N. O., et al, (eds), *Human Factors In Organizational Design And Management – Xi, Nordic Ergonomics Society Annual Conference – 46*, 2014, pp. 747-752 at p. 747.

<sup>69</sup> Ibid, p. 747.

<sup>70</sup> World Summit on Sustainable Development, *Johannesburg Declaration on Sustainable Development*, A/CONF.199/20, Annex: Plan of Implementation of the World Summit on Sustainable Development.

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and healthy environment, but that - if a society is indeed committed to sustainability - the equally legitimate social and cultural needs ought to be taken care of as well.<sup>71</sup> Economic, social, and cultural conditions, efforts, and values are deemed to be resources that also need to be preserved for future generations.<sup>72</sup>

Sustainable development, as defined in the *Brundtland Commission Report*, includes human development.<sup>73</sup> One of the ways of addressing poverty is focusing on human development which empowers people, both men and women, to contribute positively towards eradication of poverty without solely relying on the Government to do so. This World Summit, thus, helped in establishing the link between sustainable development and social development and showing that they must be mutually inclusive if development is to be considered effective.

It is also important to point out that poverty affects males and females in varying ways and as such, any efforts geared towards its eradication should bring on board all the affected parties in order to come up with effective mechanisms that will not only reflect and address the needs of all sections of the society, but will also facilitate participation of all. This is also important as it helps generate social acceptance of the government's policies while are geared towards addressing the real issues affecting its people.

At the Rio+20 Conference, world leaders, participants from governments, the private sector, NGOs and other groups, deliberated on how they can reduce poverty, advance social equity and ensure environmental protection.<sup>74</sup> According to the Rio+20 outcome document,<sup>75</sup> member States agreed that sustainable development goals (SDGs) must *inter alia*: be based on *Agenda 21* and the Johannesburg Plan of Implementation; fully respect all the Rio Principles; contribute to the full implementation of the outcomes of all major summits in the economic, social and environmental fields; focus on priority areas for the achievement of sustainable development, being guided by the outcome

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<sup>71</sup> Littig, B. & Grießler, E., 'Social sustainability: a catchword between political pragmatism and social theory,' *Int. J. Sustainable Development*, Vol. 8, Nos. 1/2, 2005, pp. 65-79 at p.67.

<sup>72</sup> *Ibid*, p.67.

<sup>73</sup> Costantini, V. & Monni, S., "Measuring Human and Sustainable Development: an integrated approach for European Countries," *Working paper No. 41*, 2004, p. 8. Available at <http://host.uniroma3.it/dipartimenti/economia/pdf/WP41.pdf> [Accessed on 15/04/2015].

<sup>74</sup> United Nations Conference on Sustainable Development, available at <http://www.uncsd2012.org/about.html> [Accessed on 17/05/2015].

<sup>75</sup> The Rio+20 Outcome Document, *The Future We Want* (Resolution 66/288, July 2012).

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document; address and incorporate in a balanced way all three dimensions of sustainable development and their inter-linkages; be coherent with and integrated into the United Nations development agenda beyond 2015; not to divert focus or effort from the achievement of the Millennium Development Goals; and include active involvement of all relevant stakeholders, as appropriate, in the process.<sup>76</sup>

It has been asserted that people are at the centre of sustainable development and, in this regard, Rio+20 delegates promised to strive for a world that is just, equitable and inclusive, and committed to work together to promote sustained and inclusive economic growth, social development and environmental protection and thereby benefit all, in particular the children of the world, youth and future generations of the world without distinction of any kind such as age, sex, disability, culture, race, ethnicity, origin, migratory status, religion, economic or other status.<sup>77</sup> This is an all-inclusive approach that does not create any distinction between male and female but focuses on humanity as a whole.

It is worth noting that one of the main outcomes of the Rio+20 Conference was the agreement by member States to launch a process to develop a set of Sustainable Development Goals (SDGs), which would build upon the Millennium Development Goals and converge with the post 2015 development agenda.<sup>78</sup> The sustainable development goals focus on inequalities, economic growth, decent jobs, cities and human settlements, industrialization, energy, climate change, sustainable consumption and production, peace, justice and institutions.<sup>79</sup>

The *Sustainable Development Goals, Agenda 2030* (SDGs) define sustainable development broadly to cover issues such as poverty, inequality, gender equality, health, education, governance, climate change and environmental protection.<sup>80</sup> In this regard, much of the global debate on sustainable development has identified three core elements of sustainability

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<sup>76</sup> United Nations Department of Economic and Social Affairs, Division for Sustainable Development.

<sup>77</sup> United Nations, 'Open Working Group proposal for Sustainable Development Goals,' *op cit*.

<sup>78</sup> United Nations Department of Economic and Social Affairs, "Sustainable development goals," available at

<https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals> [Accessed on 20/05/2015].

<sup>79</sup> United Nations General Assembly, "The Road to Dignity By 2030: Ending Poverty, Transforming All Lives and Protecting the Planet," *Synthesis report of the Secretary-General on the post-2015 Sustainable development agenda*. A/69/700. para.45.

<sup>80</sup> See United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1, Resolution adopted by the General Assembly on 25 September 2015.

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which include:<sup>81</sup> Economic: An economically sustainable system must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt, and to avoid extreme sectoral imbalances which damage agricultural or industrial production; Environmental: An environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or environmental sink functions, and depleting non-renewable resources only to the extent that investment is made in adequate substitutes. This includes maintenance of biodiversity, atmospheric stability, and other ecosystem functions not ordinarily classed as economic resources; and Social: A socially sustainable system must achieve distributional equity, adequate provision of social services including health and education, gender equity, and political accountability and participation.<sup>82</sup>

In broad terms, the concept of sustainable development is an attempt to combine growing concerns about a range of environmental issues, socio-economic issues to do with poverty and inequality and concerns about a healthy future for humanity. It strongly links environmental and socio-economic issues.<sup>83</sup> The key principle of sustainable development underlying all others is the integration of environmental, social, and economic concerns into all aspects of decision making.<sup>84</sup>

### **5.2 Basic Principles of Sustainable Development**

The Rio Declaration on Environment and Development lists the main principles of sustainability as far as environment is concerned. However, it has been acknowledged that there exists diversity of interpretations of the main principles of sustainable development in terms of indicators, of decision-making processes and of models of sustainable development policies, and this has partly been attributed to the variability of scientific knowledge across different problem domains.<sup>85</sup> Therefore, the discussion in this section is not and

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<sup>81</sup> Harris, J.M., Basic Principles of Sustainable Development, Global Development and Environment Institute, Working Paper 00-04, June 2000, op cit., pp.5-6.

<sup>82</sup> Ibid, p.6.

<sup>83</sup> Hopwood, B., *et al*, "Sustainable development: mapping different approaches," *Sustainable Development*, Vol. 13, Issue 1, February 2005, pp.38–52,p.39.

<sup>84</sup> Emas, R., 'The Concept of Sustainable Development: Definition and Defining Principles,' *Brief for GSDR 2015*, p.3. Available at [https://sustainabledevelopment.un.org/content/documents/5839GSDR%202015\\_SD\\_concept\\_definition\\_rev.pdf](https://sustainabledevelopment.un.org/content/documents/5839GSDR%202015_SD_concept_definition_rev.pdf) [Accessed on 2/06/2016].

<sup>85</sup> Faucheux, S., *Principles of Sustainable Development* - Vol. III – 'Summary Principles for



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cannot be purported to be exhaustive on these principles. The discussion is limited to just a number of these principles, which are relevant to the discourse in this paper.<sup>86</sup>

### **a. Sovereign Right to Exploit Natural Resources**

Principle 2 of the *Rio Declaration on Environment and Development* provides that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

International law prohibits states from conducting or permitting activities within their territories, or in common spaces, without regard for the rights of other states or for the protection of the global environment.<sup>87</sup> It comes with the obligation to take appropriate measures to prevent or minimise as far as possible the risk of significant harm, not merely a basis for reparation after the event.<sup>88</sup>

### **b. The User Pays Principle**

The "*User Pays Principle*" centres around the idea that the user of a public facility, or consumer of a public good, pays for the environmental good or service or the damages which may arise from that use.<sup>89</sup> The OECD observes that the User Pays Principle is part of the overall internalisation of environmental costs, which involves consumers paying directly for use of environmental assets as well as having producer costs passed through product prices.<sup>90</sup>

This principle is in recognition of the need for concerted efforts by all persons and states in nurturing the environment, for the sake of the present as well as future generations. It is meant to ensure that someone or a state is held liable for any loss attributable to their negative actions that affect the

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Sustainable Development,' p.2. Available at <http://www.eolss.net/Sample-Chapters/C13/E1-46-06.pdf> [Accessed on 27/08/2016].

<sup>86</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Two, for more details on the highlighted principles.

<sup>87</sup> Birnie, P., et al, *International Law and the Environment*, (3rd ed., Oxford University Press, New York, 2009), p. 137.

<sup>88</sup> Ibid, p. 143.

<sup>89</sup> OECD, *Environmental Principles and Concepts*, (Organisation For Economic Co-Operation And Development, Paris, 1995), op cit., Para. 42.

<sup>90</sup> Ibid.

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environment especially where the goods in question fall within common heritage of mankind by way of having incentives or disincentives.

### **c. Principle of International Co-operation in the Management of Shared Environmental Resources**

Principle 7 of the *Rio Declaration on Environment and Development* provides that States should cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. Furthermore, in view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The *Declaration* further states that developed countries also acknowledge the responsibility that they bear in the international pursuit to sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

The principle of cooperation is also captured under principle 5 of the *Rio Declaration* which states that all States and all people should cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

The concept of "*common but differentiated responsibilities*" is defined to refer to the shared responsibilities of countries for the protection of shared resources, with the caveat that these responsibilities may be different depending on the contribution of the country to the environmental problem and its capability for addressing the environmental problem.<sup>91</sup> This is based on differing contribution to environmental degradation and probability of greater financial and technical resources.<sup>92</sup>

### **d. The Principles of Intergenerational and Intragenerational Equity**

These principles may have been informed by Principle 1 of *Declaration of the United Nations Conference on the Human Environment* (Stockholm Declaration) which states that 'man ..... bears a solemn responsibility to protect

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<sup>91</sup> OECD, *Environmental Principles and Concepts*, (Organisation For Economic Co-Operation And Development, Paris, 1995), Para. 16. OCDE/GD (95)124.

Available at <http://www.oecd.org/trade/envtrade/39918312.pdf> [Accessed on 26/08/2016].

<sup>92</sup> Ibid.

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and improve the environment for present and future generations.<sup>93</sup> Further, Principle 3 of the *Rio Declaration on Environment and Development* provides that the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations. It is also noteworthy that one of the guiding principles of the *1992 United Nations Framework on Climate Change*<sup>94</sup> is that the Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.<sup>95</sup>

The United Nations has defined intergenerational equity as the issue of sustainable development referring, within the environmental context, to fairness in the intertemporal distribution of the endowment with natural assets or of the rights to their exploitation.<sup>96</sup> It has gone further to describe intergenerational justice as a related but broader concept that involves, apart from distributive dimensions, procedural, restorative and retributive dimensions.<sup>97</sup>

It has been contended that sustainable development is inherently an intergenerational as well as an intragenerational question, which relies on a commitment to equity with future generations.<sup>98</sup> This, it is postulated, is both an ethical and philosophical commitment which acts as a constraint on a natural inclination to take advantage of our temporary control over the earth's resources, and to use them only for our own benefit without careful regard for what we leave to our children and their descendants.<sup>99</sup> The United Nations has already declared that fairness between generations is embedded in the concept of sustainable development; satisfying the needs of the present generation should not come at the expense of generations to come. That is, generally, the pursuit of

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<sup>93</sup> Principle 2 thereof also categorically states that the natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.

<sup>94</sup> UN General Assembly, *United Nations Framework Convention on Climate Change: resolution / adopted by the General Assembly*, 20 January 1994, A/RES/48/189.

<sup>95</sup> *1992 United Nations Framework on Climate Change*, Article 3(1).

<sup>96</sup> United Nations, *Intergenerational Solidarity and the needs of future generations- Report of the Secretary-General*, A/68/322, Sixty-eighth session, Item 19 (a) of the provisional agenda, para. 10.

<sup>97</sup> *Ibid.*

<sup>98</sup> Weiss, E.B., "In Fairness to Future Generations and Sustainable Development," *American University International Law Review*, Vol. 8, No. 1, 1992, pp. 19-26 at p. 19.

<sup>99</sup> *Ibid.*, p. 19.

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welfare by the present generation should not diminish the opportunities of succeeding generations for pursuing a good and decent life.<sup>100</sup>

The theory of intergenerational equity states that we, the human species, hold the natural environment of our planet in common with other species, other people, and with past, present and future generations.<sup>101</sup> The concept of intragenerational equity is believed to be as a result of the recognition that the lessening of economic inequality in the current generation must be seen as a primary goal of development rather than as a secondary or separate process.<sup>102</sup>

There has been proffered three normative principles of intergenerational equity namely: Each generation must conserve options, which means conserving the diversity of the natural and cultural resource base, so that each generation does not unduly restrict the options available to future generations in solving their problems and satisfying their own values; each generation should be required to maintain the quality of the planet so that it is passed on in a condition no worse than that in which it was received; and finally, each generation should provide its members with equitable rights of access to the legacy of past generations and conserve this access for future generations.<sup>103</sup>

It has rightly been argued that what makes intragenerational equity a key principle of sustainable development is that inequities are a cause of environmental degradation. This is because poverty deprives people of the choice about whether or not to be environmentally sound in their activities.<sup>104</sup> This was also well articulated in the *1987 Brundtland Commission Report* which stated: ‘Those who are poor and hungry will often destroy their immediate environment in order to survive: They will cut down forests; their livestock will overgraze grasslands; they will overuse marginal land; and in growing numbers

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<sup>100</sup> United Nations, *Intergenerational Solidarity and the needs of future generations- Report of the Secretary-General, A/68/322*, Sixty-eighth session, Item 19 (a) of the provisional agenda, para. 10.

<sup>101</sup> Weiss, E.B., “In Fairness to Future Generations and Sustainable Development,” op cit., p. 20.

<sup>102</sup> OECD, *Environmental Principles and Concepts*, (Organisation For Economic Co-Operation And Development, Paris, 1995), Para. 15. OCDE/GD (95)124. Available at <http://www.oecd.org/trade/envtrade/39918312.pdf> [Accessed on 26/08/2016].

<sup>103</sup> Weiss, E.B., “In Fairness to Future Generations and Sustainable Development,” op cit., pp. 22-23.

<sup>104</sup> Beder, S, ‘Costing the Earth: Equity, Sustainable Development and Environmental Economics,’ *New Zealand Journal of Environmental Law*, Vol. 4, 2000, pp.227-243 at p.230; See also generally, Emas, R., ‘The Concept of Sustainable Development: Definition and Defining Principles,’ Brief for GSDR 2015, p3. Available at [https://sustainabledevelopment.un.org/content/documents/5839GSDR%202015\\_SD\\_concept\\_definition\\_rev.pdf](https://sustainabledevelopment.un.org/content/documents/5839GSDR%202015_SD_concept_definition_rev.pdf) [Accessed on 26/08/2016].

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they will crowd into congested cities. The cumulative effect of these changes is so far-reaching as to make poverty itself a major global scourge.’<sup>105</sup>

### **e. The Polluter-Pays Principle**

Principle 16 of the *Rio Declaration on Environment and Development* states that national authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

The "*Polluter Pays Principle*", essentially believed to be a principle of economic policy rather than a legal principle, states that the polluter should bear the expenses of carrying out pollution prevention measures or paying for damage caused by pollution.<sup>106</sup> This was also captured in the *1972 OECD Guiding Principles on the International Economic Aspects of Environmental Policies*, which state: "The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called 'Polluter Pays Principle.' This principle means that the polluter should bear the expenses of carrying out the above mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the costs of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment."<sup>107</sup>

In the *Trail Smelter Arbitration (United States v. Canada)*,<sup>108</sup> the Tribunal held that it is the responsibility of the State to protect other states

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<sup>105</sup> *1987 Brundtland Commission Report*, op cit. (As quoted in Beder, S, 'Costing the Earth: Equity, Sustainable Development and Environmental Economics,' op cit. at p.230).

<sup>106</sup> OECD, *Environmental Principles and Concepts*, (Organisation For Economic Co-Operation And Development, Paris, 1995), op cit., Para. 37.

<sup>107</sup> *1972 OECD Guiding Principles on the International Economic Aspects of Environmental Policies*, OECD, C (72)128 (As quoted in OECD, *Environmental Principles and Concepts*, (Organisation For Economic Co-Operation And Development, Paris, 1995), op cit., Para. 33).

<sup>108</sup> *Arbitral Trib.*, 3 U.N. Rep. Int'l Arb. Awards 1905 (1941). The Trail Smelter located in British Columbia since 1906, was owned and operated by a Canadian corporation. The resultant effect of air pollution from the sulfur dioxide from Trail Smelter resulted in the damage of the state of Washington between 1925 and 1937. This led to the United States (P) suit against the Canada (D) with an injunction against further air pollution by Trail Smelter. The decision made

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against harmful acts by individuals from within its jurisdiction at all times. No state has the right to use or permit the use of the territory in a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein as stipulated under the United States (Plaintiff) laws and the principles of international law.

These principles were also the subject of Case concerning *the Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*, Judgment of 25 September 1997<sup>109</sup> where the International Court of Justice concluded that both Parties committed internationally wrongful acts, and that those acts gave rise to the damage sustained by the Parties; consequently, Hungary and Slovakia were both under an obligation to pay compensation and were both entitled to obtain compensation.

The OECD Council's *Recommendation on Guiding Principles Concerning International Economic Aspects of Environmental Policies* is believed to have been the first formulation of the Polluter-Pays Principle at the international level, and it sought to encourage sound environmental management and to harmonise methods for allocating the cost of pollution to avoid distortions in prices for products entering international trade.<sup>110</sup>

While the Polluter-Pays Principle was adopted by the OECD Council in 1972 as an economic principle for allocating the costs of pollution control, it has been observed that it may already have developed into a legal principle, also although not yet been codified because its contents have been changing and continue to change.<sup>111</sup> The Polluter-Pays Principle is also seen not as a principle of equity; rather than to punish polluters, it is designed to introduce appropriate signals in the economic system so as to incorporate environmental costs in the

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by the Tribunal established the concept of Trans Boundary Harm and the principle of the "polluter pays" to ensure sovereignty. (Prunella, C., 'An International Environmental Law case study: The Trail Smelter Arbitration,' December, 2014. Available at <http://intlpollution.commons.gc.cuny.edu/an-international-environmental-law-case-study-the-trail-smelter-arbitration/> [ Accessed on 27/08/2016]

<sup>109</sup> International Court of Justice, Communiqué (unofficial) No. 97/10 bis of 25 September 1997 and Judgement. Both available from the ICJ Internet Home Page (<http://www.icj-cij.org/docket/files/92/7375.pdf> [ Accessed on 27/08/2016])

<sup>110</sup> Vicha, O, The Polluter-Pays Principle In OECD Recommendations And Its Application In International And EC/EU Law, *Czech Yearbook of Public & Private International Law*, Vol. 2, 2011, pp. 57-67. Available at [files.cvil.eu/200000043-87d4c88ce6/%C4%8CSMP\\_2011\\_05\\_vicha.pdf](files.cvil.eu/200000043-87d4c88ce6/%C4%8CSMP_2011_05_vicha.pdf) [ Accessed on 27/08/2016]

<sup>111</sup> Ibid, p. 67; See also OECD, *Recommendation of the Council concerning the Application of the Polluter-Pays Principle to Accidental Pollution*, 7 July 1989 - C(89)88/FINAL.

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decision-making process and, consequently, to arrive at sustainable, environment-friendly development.<sup>112</sup> The aim is to avoid wasting natural resources and to put an end to the cost-free use of the environment as a receptacle for pollution.<sup>113</sup>

### **f. Principle of Reasonable Use and Equitable Utilisation of Natural Resources**

This principle is mainly used in relation to international or transboundary water resources. In this regard, the UN Watercourses Convention User's Guide points out that the principle of equitable and reasonable utilisation is the cornerstone of the UN Watercourses Convention<sup>114</sup> and the fundamental doctrine guiding water-sharing for international watercourses. It entitles a watercourse State to an equitable and reasonable share of the uses and benefits of the particular watercourse, and also creates the reciprocal obligation not to deprive other States of their respective rights in this regard.<sup>115</sup>

Scholars observe that this is the most widely recognised and practiced principle in the resolution of water related problems, a principle based on equity,

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<sup>112</sup> Ibid, p. 67; See also Nicoleta, D.D., 'The Polluter-Pays Principle- -Expression Of Tort Liability For Environmental Protection,' *Analele Universităţii din Oradea, Fascicula Protecţia Mediului* Vol. XVIII, 2012, pp. 295-302 at p. 301. Available at [http://protmed.uoradea.ro/facultate/anale/protectia\\_mediului/2012A/im/11.%20Dascalu%20Diana.pdf](http://protmed.uoradea.ro/facultate/anale/protectia_mediului/2012A/im/11.%20Dascalu%20Diana.pdf)

[Accessed on 27/08/2016].

<sup>113</sup> Ibid, p. 67.

<sup>114</sup> *Convention on the Law of the Non-navigational Uses of International Watercourses*, 1997 Adopted by the General Assembly of the United Nations on 21 May 1997. Entered into force on 17 August 2014. See General Assembly resolution 51/229, annex, Official Records of the General Assembly, Fifty-first Session, Supplement No. 49 (A/51/49). Article 5-Equitable and reasonable utilisation and participation.

*1. Watercourse States shall in their respective territories utilise an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilisation thereof and benefits therefrom, taking into account the interests of the watercourse States concerned, consistent with adequate protection of the watercourse. 2. Watercourse States shall participate in the use, development and protection of an international watercourse in an equitable and reasonable manner. Such in participation includes both the right to utilise the watercourse and the duty to co-operate in the protection and development thereof, as provided in the present Convention.*

<sup>115</sup> Equitable and Reasonable Utilisation, *UN Watercourses Convention User's Guide Fact Sheet Series: Number 4*, p.1. Available at <http://www.unwatercoursesconvention.org/documents/UNWC-Fact-Sheet-4-Equitable-and-Reasonable-Utilisation.pdf> [Accessed on 27/08/2016].

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fairness and norms of distributive justice in which the interests of every contestant country are taken into consideration.<sup>116</sup>

### **g. Precautionary Principle**

Principle 15 of the *Rio Declaration on Environment and Development*<sup>117</sup> states that in order to protect the environment, the precautionary approach should be widely applied by States according to their capabilities. Further, it states that where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The precautionary principle is believed to provide guidance for governance and management in responding to uncertainty.<sup>118</sup> It also provides for action to avert risks of serious or irreversible harm to the environment or human health in the absence of scientific certainty about that harm and it is now widely and increasingly accepted in sustainable development and environmental policy at multilateral and national levels.<sup>119</sup>

The emergence of the precautionary principle marked a shift from post-damage control (civil liability as a curative tool) to the level of a pre-damage control (anticipatory measures) of risks.<sup>120</sup> It originated in environmental risk management to provide regulatory authority to stop specific environmental

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<sup>116</sup> 'Chapter- Three: Equitable Utilisation' p. 108 (International Water Law). Available at <http://www.internationalwaterlaw.org/bibliography/Articles/general/Part-%203.pdf> [Accessed on 27/08/2016]; See also HE, Y., "On the Performance of the Principle of Equitable and Reasonable Utilization in the Practice of the Utilization of Transboundary Water Resources," *iBusiness*, Vol. 1 No. 1, 2009, pp. 40-45. Available at [http://file.scirp.org/pdf/IB20090100013\\_63621513.pdf](http://file.scirp.org/pdf/IB20090100013_63621513.pdf) [Accessed on 27/08/2016]; See also United Nations, *Environmental Law Guidelines and Principles on Shared Natural Resources*, Principle 1. Available at [http://www.unep.org/training/programmes/Instructor%20Version/Part\\_2/Activities/Interest\\_Groups/Decision-Making/Supplemental/Enviro\\_Law\\_Guidelines\\_Principles\\_rev2.pdf](http://www.unep.org/training/programmes/Instructor%20Version/Part_2/Activities/Interest_Groups/Decision-Making/Supplemental/Enviro_Law_Guidelines_Principles_rev2.pdf) [Accessed on 27/08/2016].

<sup>117</sup> Principle 15, *1992 Rio Declaration on Environment and Development*, UN Doc. A/CONF.151/26 (vol. I) / 31 ILM 874 (1992). Adopted at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil from 3-14 June 1992.

<sup>118</sup> Cooney, R., *The Precautionary Principle in Biodiversity Conservation and Natural Resource Management: An issues paper for policy-makers, researchers and practitioners*, (IUCN, Gland, Switzerland and Cambridge, 2004), UK. xi + 51pp at p. 1. Available at <http://www.sehn.org/pdf/PrecautionaryPrincipleissuespaper.pdf> [Accessed on 27/08/2016].

<sup>119</sup> *Ibid*, p.1.

<sup>120</sup> World Commission on the Ethics of Scientific Knowledge and Technology (COMEST), *The Precautionary Principle*, (United Nations Educational, Scientific and Cultural Organization, Paris, 2005), p.7. Available at <http://www.eubios.info/UNESCO/preprin.pdf> [Accessed on 27/08/2016]



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contaminations without waiting for conclusive evidence of harm to the environment (i.e., while there was still “uncertainty” about the evidence).<sup>121</sup> It has been suggested that the precautionary principle might be described both in terms of the level of uncertainty that triggers a regulatory response and in terms of the tool that will be chosen in the face of uncertainty (as in the case of technological requirements or prohibitions).<sup>122</sup>

### **h. Principle of Public Participation**

Principle 1 of the *Rio Declaration on Environment and Development* affirms that human beings are at the centre of concerns for sustainable development and are as such entitled to a healthy and productive life in harmony with nature. This means that apart from addressing the human needs, human beings must actively participate in the sustainable development agenda, if the same is to be meaningfully achieved. It is noteworthy that Principle 1 does not discriminate against men or women as it contemplates a society where both gender participate in the sustainable development efforts for a healthy and sustainable environment for everyone.<sup>123</sup>

Principle 10 of the *Rio Declaration* states that environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual should have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States are to facilitate and encourage public awareness and participation by making

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<sup>121</sup> Hathcock, J.N., ‘The Precautionary Principle—An Impossible Burden Of Proof for New Products,’ *AgBioForum*, Vol. 3, No. 4, 2000, pp. 255-258, p.255.

<sup>122</sup> Sunstein, C.R., ‘Beyond the Precautionary Principle,’ University of Chicago Public Law and Legal Theory Working Paper No. 38, January 2003, p.11. Available at [http://www.law.uchicago.edu/files/files/38.crs\\_.precautionary.pl-lt.pdf](http://www.law.uchicago.edu/files/files/38.crs_.precautionary.pl-lt.pdf) [Accessed on 27/08/2016].

<sup>123</sup> This is affirmed in Principle 20 of the *Rio Declaration on Environment and Development* which states that women have a vital role in environmental management and development and their full participation is, therefore, essential to achieve sustainable development. The youth also form part of the community and Principle 21 advocates for their participation by providing that the creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all. These Principles, thus, advocate for the equal and meaningful participation of all persons in promotion of sustainable development agenda.

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information widely available. It also provides that effective access to judicial and administrative proceedings, including redress and remedy, should be provided.

The *Declaration on the Right to Development*<sup>124</sup> in its preamble partly states that development is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and in the fair distribution of benefits resulting therefrom. The *Declaration* also states that right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized.<sup>125</sup>

It is also noteworthy that the foregoing *Declaration* does not discriminate against women or men and it envisages equal, active and meaningful participation of *all individuals* (emphasis added). The Declaration is particular about equality of all and requires that States should undertake, at the national level, all necessary measures for the realization of the right to development and should ensure, *inter alia*, equality of opportunity for all in their access to basic resources, education, health services, food, housing, employment and the fair distribution of income. Specifically, it states that effective measures should be undertaken to ensure that women have an active role in the development process. As such, it advocates for appropriate economic and social reforms to be carried out with a view to eradicating all social injustices.<sup>126</sup>

Elimination of social injustices entails promoting gender equity as a way of ensuring that both men and women get fair opportunities for the realisation of their right to self-determination and contribution towards national development. The *UN Conference on Environment and Development, Agenda 21*<sup>127</sup> under chapter 23 calls for full public participation by all social groups, including women, youth, indigenous people and local communities in policy-making and decision-making. It is in recognition of the fact that unless all these groups are equitably and meaningfully involved in the decision making policies, especially those on sustainable development, then the Government efforts would either fail

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<sup>124</sup> United Nations, *Declaration on the Right to Development*, A/RES/41/128.

<sup>125</sup> *Ibid*, Article 1.

<sup>126</sup> Article 8(1).

<sup>127</sup> United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992.

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or prove inadequate. This recognition creates a chance for the government to appreciate and address the particular needs of these groups, considering that, needs as envisaged in the Brutland Commission Report may vary from society to society.

### **i. Cultural Issues in Sustainable Development**

Principle 22 of the 1992 *Rio Declaration on Environment and Development* states that indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. In light of this, States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

It has been argued that many, if not all of the planet's environmental problems and certainly all of its social and economic problems, have cultural activity and decisions – people and human actions – at their roots.<sup>128</sup> As such, solutions are likely to be also culturally-based, and the existing models of sustainable development forged from economic or environmental concern are unlikely to be successful without cultural considerations.<sup>129</sup> Culture in this context, has been defined as: culture as the general process of intellectual, spiritual or aesthetic development; culture as a particular way of life, whether of people, period or group; and culture as works and intellectual artistic activity.<sup>130</sup>

The United Nations Educational, Scientific and Cultural Organization (UNESCO) asserts that 'culture is who we are and what shapes our identity. No development can be sustainable without including culture.'<sup>131</sup> The Agenda 2030 for Sustainable Development captures the states' pledge to foster intercultural understanding, tolerance, mutual respect and an ethic of global citizenship and shared responsibility, and their acknowledgement of the natural and cultural

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<sup>128</sup> Dessein, J. et al (ed), 'Culture in, for and as Sustainable Development: Conclusions from the COST Action IS1007 Investigating Cultural Sustainability,' (University of Jyväskylä, Finland, 2015), p. 14. Available at <http://www.culturalsustainability.eu/conclusions.pdf> [Accessed on 27/08/2016].

<sup>129</sup> Ibid, p.14.

<sup>130</sup> Ibid, p. 21.

<sup>131</sup> United Nations Educational, Scientific and Cultural Organization (UNESCO), 'Culture for Sustainable Development,' available at <http://en.unesco.org/themes/culture-sustainable-development> [Accessed on 27/08/2016]

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diversity of the world and recognition that all cultures and civilizations can contribute to, and are crucial enablers of, sustainable development.<sup>132</sup>

African States and other stakeholders, in the *Ngorongoro Declaration*<sup>133</sup> have acknowledged that Sustainable development can ensure that appropriate efforts are deployed to protect and conserve the cultural and natural resources of a region faced with the challenges of climate change, natural and human-made disasters, population growth, rapid urbanization, destruction of heritage, and environmental degradation for present and future generations.<sup>134</sup> As such, they declared that on the one hand, African heritage is central to preserving and promoting African cultures thereby uplifting identity and dignity for present and future generations in an increasingly globalised world, and on the other hand, heritage, including World Heritage properties, is a driver of sustainable development and critical for achieving regional socio-economic benefits, environmental protection, sustainable urbanization, social cohesion and peace.<sup>135</sup>

The Constitution of Kenya 2010 states that it recognises culture as the foundation of the nation and as the cumulative civilization of the Kenyan people and nation.<sup>136</sup> In light of this, it obligates the State to, inter alia, promote all forms of national and cultural expression through literature, the arts, traditional celebrations, science, communication, information, mass media, publications, libraries and other cultural heritage; and recognise the role of science and indigenous technologies in the development of the nation.

These are some of the initiatives that highlight the existing relationship between culture and sustainable development, thus affirming the fact that cultural issues cannot be wished away in the discussion and efforts towards achieving sustainable development in Kenya and the world over. This paper has dedicated a section on the place of indigenous knowledge, being a cultural issue, in the quest for sustainable development.<sup>137</sup>

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<sup>132</sup> United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1, Resolution adopted by the General Assembly on 25 September 2015, para. 36.

<sup>133</sup> The Ngorongoro Declaration on Safeguarding African World Heritage as a Driver of Sustainable Development, adopted in Ngorongoro, Tanzania on 4 June 2016

<sup>134</sup> Ibid, p.2.

<sup>135</sup> Ibid, p. 3.

<sup>136</sup> Article 11 (1), Constitution of Kenya, 2010.

<sup>137</sup> See also Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Eleven, for the full discussion.

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### 6.General Approaches to Sustainability and Sustainable Development Debate

It is noteworthy that various groups define sustainability differently, where some restrict it to environmental sustainability and others include broader issues affecting human life. However, it has been observed that while definitions slightly differ, the most common one sees sustainability as the requirement to maintain the capacity to provide non-declining well-being over time.<sup>138</sup> There are generally two approaches to sustainability namely: weak and strong sustainability.

Strong sustainability regards natural capital as providing some functions that are not substitutable by man-made capital.<sup>139</sup> These functions, labeled ‘critical natural capital’, are stressed by defining sustainability as leaving the future generations a stock of natural capital not smaller than the one enjoyed by the present generation.<sup>140</sup>

Weak sustainability has been described as involving the replacement of natural resources and environmental assets—that are currently freely available to everyone—with human-made resources that have to be bought and may only be accessible to some people in the future.<sup>141</sup> The argument is that the depletion of natural capital can lead to irreversible losses such as species and habitats, which once lost cannot be recreated through man-made capital.<sup>142</sup> As such, intergenerational equity is not compatible with the concept of weak sustainability, a concept that assumes that future generations will not suffer from

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<sup>138</sup> Neumayer, E., ‘Sustainability and Well-being Indicators,’ Research Paper No. 2004/XX, (UNU World Institute for Development Economics Research (UNU-WIDER), March 2004, p.1. Available at <http://www.lse.ac.uk/geographyAndEnvironment/whosWho/profiles/neumayer/pdf/SustainabilityWellbeingArticle.pdf> [Accessed on 27/08/2016].

<sup>139</sup> Gutes, M.C., ‘Commentary: The concept of weak sustainability,’ *Ecological Economics* Vol. 17, 1996, pp.147-156 at p.147.

<sup>140</sup> *Ibid*, p. 147.

<sup>141</sup> Beder, S, ‘Costing the Earth: Equity, Sustainable Development and Environmental Economics,’ *op cit*, p.230.

<sup>142</sup> *Ibid*, p. 229; See also Humphrey, M., "Three conceptions of irreversibility and environmental ethics: some problems," *Environmental Politics*, Vol.10, No. 1, 2001, pp. 138-154; See also generally, Spash, C.L. & Clayton, A.M.H., ‘The Maintenance of Natural Capital: Motivations and Methods,’ in Light, A. & Smith, J.M. (eds), *Place and Environmental Ethics*, Series Philosophy and Geography, Vol. 1 ( Lanham: Rowman & Littlefield Pub. Inc., 1997) pp. 143-173). Available at [http://www.clivespash.org/wp-content/uploads/2015/04/1997-Spash\\_Clayton-Natural-Capital-Maintenance.pdf](http://www.clivespash.org/wp-content/uploads/2015/04/1997-Spash_Clayton-Natural-Capital-Maintenance.pdf) [Accessed on 27/08/2016].

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environmental losses as long as it is compensated for this loss by wealth creation.<sup>143</sup>

The very weak sustainability approach asserts that natural and manufactured capital can substitute perfectly for one another, where the substitutability of different types of capital implies that the preservation of an aggregate level of natural plus manufactured capital, rather than the preservation of natural capital in particular, is crucial.<sup>144</sup> The sustainability of ecological systems is viewed as important only as far as required for the sustainability of the human component.<sup>145</sup> The fundamental debate regarding sustainable development is, therefore, whether to adopt a strong or a weak conception of sustainability.<sup>146</sup>

It has rightly been argued that despite continuing disagreement about the meaning of ‘sustainable development’, what is referred to as the triple-bottom-line trajectory – which would see economic advancement being achieved alongside social equity and environmental security – is viewed as one of the promises for future progress regionally, nationally and globally.<sup>147</sup> The concept of sustainable development represents an attempt to go beyond the simple assertion of physical limits to economic-growth, and to explore how, in what terms, and to what extent, the socioeconomic objectives traditionally linked

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<sup>143</sup> Ibid, p. 230; See also Padilla, E., "Intergenerational equity and sustainability." *Ecological Economics* Vol.41, 2002, pp. 69-83; See also Hediger, W., (1999) "Reconciling “weak” and “strong” sustainability", *International Journal of Social Economics*, Vol. 26 Iss: 7/8/9, pp.1120 – 1144; See also Beckerman, W., "How Would you Like your 'Sustainability', Sir? Weak or Strong? A Reply to my Critics." *Environmental Values*, Vol.4, No. 2, (1995), pp.169-179.

<sup>144</sup> Gallopín, G., ‘A systems approach to sustainability and sustainable development,’ United Nations Sustainable Development and Human Settlements Division ECLAC/ Government of the Netherlands Project NET/00/063 “Sustainability Assessment in Latin America and the Caribbean” Santiago, Chile, March, 2003, p.13. Available at [http://repositorio.cepal.org/bitstream/handle/11362/5759/1/S033119\\_en.pdf](http://repositorio.cepal.org/bitstream/handle/11362/5759/1/S033119_en.pdf) [Accessed on 27/08/2016].

<sup>145</sup> Ibid, p.13.

<sup>146</sup> Pelenc, J., ‘Weak versus Strong Sustainability,’ *Technical Report · March 2015*, Brief for GSDR 2015, p.1. Available at [https://www.researchgate.net/publication/280979919\\_Weak\\_versus\\_Strong\\_Sustainability](https://www.researchgate.net/publication/280979919_Weak_versus_Strong_Sustainability) [Accessed on 27/08/2016].

<sup>147</sup> Lawrence, G., ‘Promoting Sustainable Development: The Question of Governance,’ in Buttel, F.H. & McMichael, P. (ed.), *New Directions in the Sociology of Global Development*, (Research in Rural Sociology and Development, Volume 11) Emerald Group Publishing Limited, 2006, pp.145 – 174. Available at [http://www.emeraldinsight.com/doi/abs/10.1016/S1057-1922\(05\)11006-3](http://www.emeraldinsight.com/doi/abs/10.1016/S1057-1922(05)11006-3) [ Accessed on 27/08/2016]

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to growth can be reconciled with the concern for environmental quality and inter-temporal equity.<sup>148</sup>

The sustainable management of the environment is also seen as a way to enhance the long term economic, social and environmental wellbeing of people and communities by: promoting social justice and equality of opportunity; and enhancing the natural and cultural environment.<sup>149</sup> It is, therefore, suggested that the key principle of sustainable development underlying all others is the integration of environmental, social, and economic concerns into all aspects of decision making.<sup>150</sup> That is to say, in practice, sustainable development requires the integration of economic, environmental, and social objectives across sectors, territories, and generations. It requires the elimination of fragmentation; that is, environmental, social, and economic concerns must be integrated throughout decision making processes in order to move towards development that is truly sustainable.<sup>151</sup>

The quest for sustainability and sustainable development requires integrating economic, social, cultural, political, and ecological factors.<sup>152</sup> It has been argued that sustainability is a property of a system open to interactions with its external world and not a fixed state of constancy, but a dynamic preservation of the essential identity of the system amidst permanent change.<sup>153</sup> On the other hand, sustainable development is not a property but a process of directional change by which a system improves through time in a sustainable way.<sup>154</sup>

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<sup>148</sup> Faucheux, S., *Principles of Sustainable Development* - Vol. III – ‘Summary Principles for Sustainable Development,’ op cit, p.4.

<sup>149</sup> Environmental Advisory Council, ‘Principles of Sustainable Development,’ March 2013, p. 2. Available at

[https://www.princeedwardisland.ca/sites/default/files/publications/principles\\_of\\_sustainable\\_development.pdf](https://www.princeedwardisland.ca/sites/default/files/publications/principles_of_sustainable_development.pdf) [ Accessed on 27/08/2016]

<sup>150</sup> Emas, R., ‘The Concept of Sustainable Development: Definition and Defining Principles,’ Brief for GSDR 2015, op cit., p3.

<sup>151</sup> Ibid, p. 3.

<sup>152</sup> Gallopín, G., ‘A systems approach to sustainability and sustainable development,’ op cit., p.7; See also Goodland, R., ‘The Concept of Environmental Sustainability,’ *Annual review of ecology and systematics*, Vol. 26, 1995, pp.1-24, at p. 4.

<sup>153</sup> Ibid, p. 35; See also Hattingh, J.P., "Conceptualizing Ecological Sustainability and Ecologically Sustainable Development in Ethical Terms: Issues and Challenges," (2011). Available At

[http://s3.amazonaws.com/academia.edu.documents/44180384/Hattingh.pdf?AWSAccessKeyId=A](http://s3.amazonaws.com/academia.edu.documents/44180384/Hattingh.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1472743455&Signature=dRj4ImH1mI5nltIgC4YSfWhKJZU%3D&response-content-disposition=inline%3B%20filename%3DHattingh.pdf)  
[KIAJ56TQJRTWSMTNPEA&Expires=1472743455&Signature=dRj4ImH1mI5nltIgC4YSfWhKJ](http://s3.amazonaws.com/academia.edu.documents/44180384/Hattingh.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1472743455&Signature=dRj4ImH1mI5nltIgC4YSfWhKJZU%3D&response-content-disposition=inline%3B%20filename%3DHattingh.pdf)  
[ZU%3D&response-content-disposition=inline%3B%20filename%3DHattingh.pdf](http://s3.amazonaws.com/academia.edu.documents/44180384/Hattingh.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1472743455&Signature=dRj4ImH1mI5nltIgC4YSfWhKJZU%3D&response-content-disposition=inline%3B%20filename%3DHattingh.pdf) [ Accessed on 31/08/2016].

<sup>154</sup> Ibid, p.35; See also *Our Common Future, Chapter 2: Towards Sustainable Development*,

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While there may be differences between sustainability and sustainable development, it is clear from the discussion that there are resources and players that are constant in both. For instance, human beings have been placed within the context of both processes, considering that development is meant to improve the quality of human life (be it at the expense of the environment or while ensuring environmental sustainability) while sustainability is mainly concerned with the continued availability and supply of the resources that are meant to facilitate such development. The issues of strong or weak sustainability as well as anthropocentrism or ecocentrism approaches to sustainable development narrow down to striking the balance between meeting human needs (present and future generations) and environmental sustainability.

The principles highlighted in this section inform these discussions, the only differences being that while some of the principles are anthropocentric others are ecocentric in their approach. It has rightly been pointed out that principles provide flexible and context-specific guidance: they may be of variable importance in different contexts, can be in conflict with other principles, and they allow discretion for decision-makers to balance them and be guided by those they find to be most important.<sup>155</sup> With this in mind, it is noteworthy that the principles of sustainable development are meant to offer guidelines to states on policy formulation.

A key feature of sustainable development is that it comprises three elements: Environment, Society and Economy.<sup>156</sup> There are different approaches to sustainability and sustainable development which include environmental sustainability, economic sustainability, and social sustainability. The *1987 Brundtland Commission Report* observed in the foreword that “what is needed

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From A/42/427. Our Common Future: Report of the World Commission on Environment and Development; See also Hjorth, P. & Ali, B., "Navigating towards sustainable development: A system dynamics approach," *Futures*, Vol.38, No. 1, 2006, pp. 74-92; See also Berke, P.R., "Does Sustainable Development Offer a New Direction for Planning? Challenges for the Twenty-First Century." *Journal of Planning Literature*, Vol. 17, No. 1, 2002; See also Kemp, R., et al, "Transition management as a model for managing processes of co-evolution towards sustainable development." *Perspectives on Radical Changes to Sustainable Consumption and Production (SCP)* Vol.20, 2006, p. 387.

<sup>155</sup> Cooney, R., *The Precautionary Principle in Biodiversity Conservation and Natural Resource Management: An issues paper for policy-makers, researchers and practitioners*, op cit, p5.

<sup>156</sup> Shell Livewire, “Elements of Sustainable Development: Environment, Society and Economy,” available at <http://shell-livewire.org/business-library/employing-people/management/sustainable-development/Sustainable-development/> [Accessed on 3/04/2015].



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now is a new era of economic growth – growth that is forceful and at the same time socially and environmentally sustainable.” The implication of this is that even as sustainable development efforts focus on economic development, regard has to be had on the aspects of environment and social development so as to ensure that economic development is not achieved at the expense of all these.

However, when these principles are incorporated into domestic law, then more often than not they become binding and obligatory on state organs and all persons. For instance, in Kenya’s domestic laws, these principles have been incorporated and in an obligatory manner and are binding on state organs, law makers, interpreters and implementers.<sup>157</sup>

### **7. Human Rights, Sustainable Development and the Environment**

Over the last three decades or so, the debate on the relationship between human rights and environmental protection has raged on, especially in environmentalist circles and among generalist international lawyers.<sup>158</sup> The Constitution of Kenya 2010 expressly outlines that every person has a right to a clean and healthy environment, lending the thought that the Kenyan legal regime recognizes the relationship between the environment and human rights.<sup>159</sup> The question then arises as to the nature of the relationship between the environment and human rights. This section discusses the special relationship between the environment, human rights and the sustainable development debate. The section addresses such questions as whether environmental rights are human rights;

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<sup>157</sup> See Article 10, Constitution of Kenya 2010. (1) The national values and principles of governance in this Article bind all State organs, State officers, public officers and all persons whenever any of them— (a) applies or interprets this Constitution; (b) enacts, applies or interprets any law; or (c) makes or implements public policy decisions. (2) The national values and principles of governance include— (a) patriotism, national unity, sharing and devolution of power, the rule of law, democracy and participation of the people; (b) human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalised; (c) good governance, integrity, transparency and accountability; and (d) sustainable development.

<sup>158</sup> Boyle, A., ‘Human Rights and the Environment: Where Next?’ *The European Journal of International Law*, Vol.23, No. 3 (Oxford University Press, 2012); See also Anton, D. & Shelton, D., *Environmental Protection and Human Rights* (2011); Francioni, ‘*International Human Rights in an Environmental Horizon*’, 21 *EJIL* (2010) 41; D. Bodansky, J. Brunnée, and E. Hey (eds), *The Oxford Handbook of International Environmental Law* (2007), at chs 28 and 29; Boyle, ‘*Human Rights or Environmental Rights? A Reassessment*’, 18 *Fordham Environmental L Rev* (2007) 471; A.E. Boyle and M.R. Anderson (eds), *Human Rights Approaches to Environmental Protection* (1996).

<sup>159</sup> The Constitution of Kenya 2010, Article 42.

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whether it is human rights that informed the formal recognition of environmental rights or are the latter justiciable on their own. It also discusses the place of such rights as the right to a clean and healthy environment and what informs environmental rights-anthropocentric or ecocentric approaches to environmental protection and conservation.<sup>160</sup>

### **7.1 Environmental Protection and Human Rights**

Human rights have been defined as universal, inalienable rights inherent to all human beings, which they are entitled to without discrimination.<sup>161</sup> Environmental protection should be treated as a human rights issue because a human rights perspective directly addresses environmental impacts on the life, health, private life, and property of individual humans, thereby serving to secure higher standards of environmental quality, based on the obligation of states to take measures to control pollution affecting health and private life.<sup>162</sup>

The environment and its states affect a wide (if not the whole) spectrum of human life, which is protected by human rights. There is, thus, a direct correlation between the environment and the right to life<sup>163</sup>, human dignity<sup>164</sup>, the right to reasonable standards of sanitation<sup>165</sup>, the right to food<sup>166</sup> and the right to clean and safe water in adequate quantities.<sup>167</sup> The Constitution of Kenya 2010 goes further to expressly state the right to a clean and healthy environment, which effectively lays to rest the question of the question of the environment and human rights in Kenya. On an international plane, however, there is no recognised right to a healthy environment.

Human rights are inextricable from sustainable development, since human beings are at the centre of concerns for sustainable development.<sup>168</sup> Human rights depend upon having a liveable planet. The right to life as espoused

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<sup>160</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Three, for the full discussion.

<sup>161</sup> [www.ohchr.org/EN/Issues/pages/WhatAreHumanRights.aspx](http://www.ohchr.org/EN/Issues/pages/WhatAreHumanRights.aspx) [Accessed 10/08/2016].

<sup>162</sup> Boyle, A., ‘Human Rights and the Environment: Where Next?’ *The European Journal of International Law*, Vol.23, No. 3, 2012.

<sup>163</sup> Constitution of Kenya 2010, Article 26.

<sup>164</sup> *Ibid*, Article 28.

<sup>165</sup> *Ibid*, Article 43(b).

<sup>166</sup> *Ibid*, Article 43(c).

<sup>167</sup> *Ibid*, Article 43(d).

<sup>168</sup> 1992 Rio Declaration, Principle 1, which reads in full: “Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.”

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in Article 26 of the Constitution would not be fully enjoyed without due consideration being paid to the planet on which such a right is to be enjoyed.

Certain rights such as the right to water and food and sanitation show the link between environment protection and sustainable development, as they are necessary for these rights to be achieved.<sup>169</sup> The right to water, for example, is necessary for poverty eradication, empowerment of women and maintenance of human health (which in turn, is an indicator of sustainable development). It is, thus, logical for human rights to be integrated into sustainable development.

The human rights-based approaches provide a powerful framework of analysis and basis for action to understand and guide development, as they draw attention to the common root causes of social and ecological injustice.<sup>170</sup> Human rights standards and principles then guide development to more sustainable outcomes by recognizing the links between ecological and social marginalization, stressing that all rights are embedded in complex ecological systems, and emphasizing provision for need over wealth accumulation.<sup>171</sup>

The *Universal Declaration of Human Rights of 1948*<sup>172</sup> (UDHR) set the stage for the recognition, protection and promotion of human rights the world over. The *Declaration* places an obligation on all states to employ progressive measures to ensure recognition of human rights provided therein. Notably, the Declaration recognises the need for mobilization of resources by States so as to ensure realization of these rights.<sup>173</sup>

The UDHR created a basis for the formulation of *International Covenant on Civil and Political Rights*, (ICCPR) 1966<sup>174</sup> and *International Covenant on Economic, Social and Cultural Rights* (ICESCR) 1966.<sup>175</sup>

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<sup>169</sup> Horn, L., 'Reframing Human Rights in Sustainable Development' *Journal of the Australasian Law Teachers Association*, 2013.

<sup>170</sup> Fisher, A.D., 'A Human Rights Based Approach to the Environment and Climate Change' *A GI-ESCR Practitioner's Guide*, March 2014.

<sup>171</sup> Ibid.

<sup>172</sup> UN General Assembly, *Universal Declaration of Human Rights*, 10 December 1948, 217 A (III), available at: <http://www.refworld.org/docid/3ae6b3712c.html> [Accessed 10/08/2016].

<sup>173</sup> Article 22 thereof provides that everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality.

<sup>174</sup> UN General Assembly, *International Covenant on Civil and Political Rights*, 16 December 1966, United Nations, Treaty Series, vol. 999, p. 171. ICCPR on its part provides under Article 47 that nothing in that Covenant should be interpreted as impairing the inherent right of all peoples to enjoy and utilize fully and freely their natural wealth and resources.

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The *Draft Principles on Human Rights and the Environment of 1994*<sup>176</sup> (1994 Draft Principles) comprehensively addresses the linkage between human rights and the environment, and provide for the interdependence between human rights, peace, environment and development.<sup>177</sup>

The *World Summit for Social Development*, held 6-12 March 1995 in Copenhagen, Denmark, saw world Governments adopt a Declaration and Programme of Action which focused on the consensus on the need to put people at the centre of development. The world leaders pledged to make the conquest of poverty, the goal of full employment and the fostering of stable, safe and just societies their overriding objectives.<sup>178</sup>

There is a multiplicity of international instruments on environment protection, dating as far back as the Stockholm Declaration of 1972. While the language of Article 1 of both the Stockholm Declaration and the Rio Declaration seem to connote a human right approach to the environmental conservation, during the conferences, various proposals for a direct and thus unambiguous reference to an environmental human right were rejected<sup>179</sup>. It is arguable that the conferences created an oxymoronic circumstance, in denying what would

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<sup>175</sup> *International Covenant on Economic, Social and Cultural Rights*; adopted 16 Dec. 1966, 993 U.N.T.S. 3, G.A. Res. 2200 (XXI), U.N. GAOR, 21st Sess., Supp. No. 16, U.N. Doc. A/6316 (1966) (entered into force 3 Jan. 1976). ICESCR under Article 1.2 provides that all peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence.

<sup>176</sup> *Draft Principles On Human Rights And The Environment*, E/CN.4/Sub.2/1994/9, Annex I (1994).

<sup>177</sup> Principle 1 thereof declares that human rights, an ecologically sound environment, sustainable development and peace are interdependent and indivisible.

<sup>178</sup> *World Summit on Social Development, Copenhagen 1995: A Brief Description, Gateway to Social Policy and Development*, Available at <http://www.un.org/esa/socdev/wssd.htm> [Accessed on 15/02/2014]. The world's leaders agreed on what are commonly referred to as the ten commitments and these include to *inter alia*: eradicate absolute poverty by a target date to be set by each country; support full employment as a basic policy goal; promote social integration based on the enhancement and protection of all human rights; achieve equality and equity between women and men; accelerate the development of Africa and the least developed countries; ensure that structural adjustment programmes include social development goals; increase resources allocated to social development; create "an economic, political, social, cultural and legal environment that will enable people to achieve social development"; attain universal and equitable access to education and primary health care; and strengthen cooperation for social development through the United Nations.

<sup>179</sup> Handl, G., 'Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), 1972 and the Rio Declaration on Environment and Development, 1992' (United Nations Audiovisual Library of International Law, 2012).

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only be in the nature of ‘the right to adequate conditions of life in *an environment of a quality that permits a life of dignity and well-being*’.<sup>180</sup>

From the foregoing, it is noteworthy that the main objective of all the major international legal instruments on human rights is the alleviation of human suffering and to promote the total wellbeing of all. The absence of such wellbeing is usually perceived to be poverty. Although at times it is viewed in a narrow manner, poverty can be conceptualized in a broad manner and indeed it has been posited as the recognition that it is not limited to lack of income only, but comprises of deprivations in areas of health, education, participation and security.<sup>181</sup> Further, human poverty has been said to be a denial of human rights as it arguably infringes on, *inter alia*, human freedom and destroys human dignity. It is viewed as an intrusion into human dignity.<sup>182</sup> Basic human rights are an integral part of human rights and their violation has been seen as sabotage of human dignity.<sup>183</sup>

Since the aforementioned international legal instruments place the human rights implementation obligations on the states, it therefore follows that they are also under the obligation to use their state resources in ensuring the protection and promotion of such human rights and ultimately eradicating poverty amongst their peoples.

Poverty eradication is at the heart of achieving sustainable development in the world, and unless it is dealt with, then attaining sustainable development remains a mirage.

## **7.2 Greening of Human Rights versus Third Generation Rights**

There have generally been two types of approaches to human rights and the environment, which are the greening of already existing human rights and the introduction of a third generation of human rights.

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<sup>180</sup> 1972 Stockholm Declaration Principle 1. It reads in full: “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, and he bears a solemn responsibility to protect and improve the environment for present and future generations”.

<sup>181</sup> Gordon, D., Chapter 1, ‘Definitions of Concepts for the Perceptions of Poverty and Social Exclusion’ [www.bris.ac.uk/poverty/downloads/.../pse/99-Pilot/99-Pilot\\_1.doc](http://www.bris.ac.uk/poverty/downloads/.../pse/99-Pilot/99-Pilot_1.doc) [Accessed 15/02/2014].

<sup>182</sup> Rukooko, A.B., ‘Poverty and human rights in Africa: historical dynamics and the case for economic social and cultural rights’, *The International Journal of Human Rights*, Vol. 14, Iss. 1, 2010.

<sup>183</sup> *Vienna Declaration and Programme of Action*, Article 25, Adopted by the World Conference on Human Rights in Vienna on 25 June 1993.

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### a. Greening of Human Rights

This is a popular approach, whereby the right to a healthy environment is ‘gleaned’ from the already existing body of human rights, rather than the addition of new rights to existing treaties. This is taking place in the European Human Rights Court related to Article 8 Right to privacy and home<sup>184</sup>, in the Interamerican Commission on Human Rights (*Yanomani Indians v Brazil* (Life and health)) and in the African Commission on Human Rights (*Ogoniland v Nigeria* (Article 24 and several others)).

This also seems to be the stance adopted by the United Nations<sup>185</sup> as indicated by a 2009 report for the Office of the High Commissioner on Human Rights (OHCHR) that ‘while the universal human rights treaties do not refer to a specific right to a safe and healthy environment, the United Nations human rights treaty bodies all recognize the intrinsic link between the environment and the realization of a range of human rights, such as the rights to life, to health, to food, to water, and to housing’.<sup>186</sup>

While the relationship between certain human rights and the environment has been clearly illustrated, acknowledged and accepted, there are certain disadvantages to having these rights being the vehicles to protect the environment. For one part, environmental rights do not fit neatly into one generation of human rights. Existing civil and political rights can be used to give individuals the right to environmental information and judicial processes, which is a role of facilitating participation in decision making and forcing the government to meet minimum standards for protection of life and property from environmental harm.<sup>187</sup>

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<sup>184</sup> Kravchenko, S. & Bonine, J.E., ‘Interpretation of Human Rights for the Protection of the Environment in the European Court of Human Rights’ op cit: This is seen in the decisions rendered by the European Commission on Human Rights. Cases such as *Guerra*, *Lopez Ostra*, *Öneryıldız*, *Taskin*, *Fadeyeva*, *Budayeva*, and *Tatar* show how the right to private life, or the right to life, can be used to compel governments to regulate environmental risks, enforce environmental laws, or disclose environmental information.

<sup>185</sup> UNHRC Resolution 2005/60 (2005) also recognized the link between human rights, environmental protection, and sustainable development.

<sup>186</sup> Ibid; UN HRC, *Report of the OHCHR on the Relationship Between Climate Change and Human Rights*, UN Doc. A/HRC/10/61, 15 Jan. 2009, at para. 18.

<sup>187</sup> Alan Boyle, ‘Human Rights and the Environment: A reassessment’ *First Preparatory Meeting of the World Congress on Justice, Governance and Law for Environmental Sustainability* (12 - 13 October 2011 - Kuala Lumpur, Malaysia).

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This approach is however anthropocentric, as humans are considered the central concern while the environment is considered secondary.<sup>188</sup> This is unlikely to provide adequate protection to the environment, as the intrinsic value of the environment is not recognized. Instead it is viewed as instrumental to the intrinsic value of human beings. It is suggested that the domination of the anthropocentric approach has resulted to the lack of success in protecting the environment.

On the other end of the spectrum is the ecocentric approach, whereby there is a moral concern for nature. Through it, there is the adoption of a new land ethic, where a thing is right when it intends to preserve the integrity, stability and beauty of the biotic community, and is wrong if it intends to otherwise.<sup>189</sup> A dual rights-based approach, where the intrinsic value of humans and nature co-exist in an interconnected manner is hoped to pool the benefits of both approaches. A clean environment may also be regarded as a social and economic right, giving it such status as rights to development and would be largely programmatic, with weak implementation mechanisms.<sup>190</sup>

### **b. Third Generation Classification of Human Rights**

Human rights proponents have been particularly reluctant to recognize a third generation of human rights. Third-generation rights are described as solidarity rights that, and are attributed as group rights or collective rights<sup>191</sup>. It has been argued that these rights devalue the concept of human rights, and divert attention from the need to implement existing civil, political, economic and social rights fully.<sup>192</sup> On the flip side, rights herein include the right to development, the right to peace, the right to a healthy environment and the right to intergenerational equity.<sup>193</sup>

Recognition of the relationship between abuse of human rights of various vulnerable communities and related damage to their environment is found in the concept of environmental justice. Environmental justice theory recognizes how discrimination and marginalization involves expropriating resources from

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<sup>188</sup> Horn, L., 'Reframing Human Rights in Sustainable Development' *op cit*.

<sup>189</sup> Barouskaya I., 'Anthropocentrism & Ecocentrism: Finding Balance for Environment Protection' *A presentation at the University of Limerick*.

<sup>190</sup> Boyle, A., 'Human Rights and the Environment: A reassessment' *op cit*.

<sup>191</sup> Horn, L., 'Reframing Human Rights in Sustainable Development' *op cit*.

<sup>192</sup> Boyle, A., 'Human Rights and the Environment: A reassessment' *op cit*.

<sup>193</sup> Ruppel, O.C., 'Third Generation Human Rights and the Protection of the Environment in Namibia'.

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vulnerable groups and exposing these communities to the ecological harms that result from use of those resources. Environmental justice is based on the human right to a healthy and safe environment, a fair share to natural resources, the right not to suffer disproportionately from environmental policies, regulations or laws, and reasonable access to environmental information, alongside fair opportunities to participate in environmental decision-making.<sup>194</sup>

Some human rights lawyers opine that the recognition of third generation rights will devalue the concept of human rights and divert attention from the already recognised first and second-generation rights.<sup>195</sup> The right to a clean and healthy environment, as is with all environmental rights, has for a long time been grouped under the ‘third generation rights’ or ‘solidarity rights’. However, the right to clean and healthy environment is not a ‘third generation right’ but a *fundamental right*; (emphasis added) a prerequisite for full enjoyment of all the other rights. It is a right, crucial for the realisation of the so-called first and second generation rights. Indeed, it has been rightly argued that when people must struggle to obtain the basic necessities of life, political freedoms and human rights may appear meaningless to them.<sup>196</sup> This is because the destruction of life-sustaining ecosystems, the pollution of the world's water, land, and air, the inability to control the world's wastes, and other related environmental problems prevent people from securing the minimum requisites for health and survival, thereby impeding and even prohibiting the effective exercise and enjoyment of human rights for much of the world's population.<sup>197</sup>

It is against this background that there emerged recognition of the right to a clean and healthy environment, as a distinct right, owing to the importance of the environment for the realisation of the other human rights especially the socio-economic rights.

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<sup>194</sup> Scottish Executive Social Research, *Sustainable Development: A Review of International Literature*, (Scottish Executive Social Research, 2006), p.8.

Available at <http://www.gov.scot/resource/doc/123822/0029776.pdf> [Accessed on 15/08/2016].

<sup>195</sup> See Olenasha, W.T., ‘The Enforcement Of Environmental Rights: A Case Study Of The New South African Constitutional Dispensation,’ *Thesis (LLM (Human Rights and Democratisation in Africa))* ( University of Pretoria, 2001), available at [http://repository.up.ac.za/bitstream/handle/2263/969/olenasha\\_wt\\_1.pdf?sequence=1&isAllowed=y](http://repository.up.ac.za/bitstream/handle/2263/969/olenasha_wt_1.pdf?sequence=1&isAllowed=y) [Accessed on 28/08/2015].

<sup>196</sup> Downs, J.A., ‘A Healthy and Ecologically Balanced Environment: An Argument for A Third Generation Right,’ *Duke Journal of Comparative & International Law*, Vol. 3, 1993, pp. 351-385 at p. 351.

<sup>197</sup> *Ibid.*



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There is need to redefine the right to clean and healthy environment as a fundamental right, and classify it with the other basic rights as opposed to the existing notion that it is a third generation right. This is because the right to a clean and healthy environment can be equated to the right to life.

### **8. Environment and Sustainable Development in Kenya**

Kenya's approach to environmental governance has largely been sectoral. The international best practices in sustainable development envisage an integrated approach to economic, social and economic dimensions of development.<sup>198</sup>

#### **8.1 Domesticating Principles of Sustainable Development**

As already pointed, sustainable development contains both substantive and procedural elements, where substantive elements include the integration of environmental protection and economic development; the right to development; the sustainable utilisation of natural resources; the equitable allocation of resources both within the present generation and between present and future generations, while procedural elements include public participation in decision making; access to information; and environmental impact assessment.<sup>199</sup>

It has been suggested that the most potentially far-reaching aspect of sustainable development is that for the first time it makes a state's management of its own domestic environment a matter of international concern in a systematic way.<sup>200</sup> Nonetheless, it is still a contentious issue as to whether states should be held internationally accountable for achieving sustainability, whether globally or nationally, and also the specific formula to be used in deciding the 'acceptable standard of sustainable development.'<sup>201</sup> Thus, states retain substantial discretion in interpreting and giving effect to sustainable development.<sup>202</sup>

While acknowledging the foregoing dilemma, it is arguable that national requirements to meet the needs of their people may be an incentive for such countries to uphold the principles of sustainable development and even set

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<sup>198</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Four, for the full discussion.

<sup>199</sup> Birnie, P. et al, *International Law & the Environment*, op cit, p. 116.

<sup>200</sup> Ibid, p. 124.

<sup>201</sup> Ibid, pp. 125-126.

<sup>202</sup> Ibid, p. 126.

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standards for the same. This is well evidenced in the laws and the jurisprudence emanating from Kenyan courts.<sup>203</sup> The Constitution stipulates that sustainable development is one of the national values and principles of governance that must bind all State organs, State officers, public officers and all persons whenever any of them—applies or interprets the Constitution; enacts, applies or interprets any law; or makes or implements public policy decisions.<sup>204</sup> The implication of these constitutional provisions is that both national and county levels of government are tasked with promoting sustainable development especially with regard to natural resources and environmental management.<sup>205</sup>

The foregoing statutory and constitutional provisions as well as the case law cited confirm Kenya's position as far as recognition, promotion and implementation of the principles of sustainable development are concerned.

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<sup>203</sup> In the Kenyan case of *Peter K. Waweru v Republic* ([2006] eKLR, Misc. Civil Application No. 118 of 2004) the High Court had to deal with a contention by the applicants that they could comply with the health requirements concerning the waste water and that the cost of having treatment works in their respective plots would be out of reach of the individual property owners – and that the costs would be prohibitive. The court rejected the argument firstly because sustainable development has a cost element which must be met by the developers and secondly because they had not stated that they had thought of other alternatives which could be more environmentally friendly to deal with the problem [para. 4]. The Court went on to state as follows:

*...As regards the township itself this court is concerned on whether or not in the circumstances described the development is ecologically sustainable.... We are also concerned that the situation described to us could be the position in many other towns in Kenya especially as regards uncoordinated approval of development and the absence of sewerage treatment works. As a Court we cannot therefore escape from touching on the law of sustainable development although counsel from both sides chose not to touch on it although it goes to the heart of the matter before us.... Section 3 of EMCA demands that courts take into account certain universal principles when determining environmental cases. Apart from the EMCA it is our view that the principles set out in s 3 do constitute part of international customary law and the courts ought to take cognizance of them in all the relevant situations [p.7].*

<sup>204</sup> Constitution of Kenya, Article 10(2) (d).

<sup>205</sup> Further, the EMCA provides that in exercising the jurisdiction conferred upon it under subsection (3), the High Court of Kenya should be guided by the following principles of sustainable development: the principle of public participation in the development of policies, plans and processes for the management of the environment; the cultural and social principle traditionally applied by any community in Kenya for the management of the environment or natural resources in so far as the same are relevant and are not repugnant to justice and morality or inconsistent with any written law; the principle of international co-operation in the management of environmental resources shared by two or more states; the principles of intergenerational and intragenerational equity; the polluter-pays principle; and the pre-cautionary principle.

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Thus, the debate as to whether the various stakeholders may be held accountable for violation of the elements of sustainable development in the course of their duties seems to have been settled in Kenya and may safely be answered in the affirmative.

It is arguable that some of the current laws on natural resources management in Kenya still adopt approaches that defeat any efforts aimed at achieving sustainable development.

### **8.2 Legal and Regulatory Framework on Environmental Governance and Sustainable Development in Kenya**

Constitutionalisation of environmental rights is now one of the universally accepted approaches to environmental conservation and management.<sup>206</sup> It has become the norm worldwide for the duties of the state in respect of the environmental management and conservation to be spelt out in the Constitution.

It is against this background that the Constitution of Kenya 2010 outlines the obligations of the State in respect of the environment as including the duty to: ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources<sup>207</sup>, and ensure the equitable sharing of the accruing benefits; work to achieve and maintain a tree cover of at least ten per cent of the land area of Kenya; protect and enhance intellectual property in, and indigenous knowledge of, biodiversity<sup>208</sup> and the genetic resources of the

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<sup>206</sup> See generally, Boyd, D.R., 'The Effectiveness of Constitutional Environmental Rights,' *Yale UNITAR Workshop*, April 26/27, 2013, available at <https://environment.yale.edu/content/documents/00003438/Boyd-Effectiveness-of-Constitutional-Environmental-Rights.docx?1389969747> [Accessed on 23/07/2016]; See also Daly, E. & May, J.R., 'Comparative environmental constitutionalism,' *Jindal Global Law Review*, April 2015, Volume 6, Issue 1, pp 9–30; See also, Mwenda, A. & Kibutu, T.N., 'Implications of the New Constitution on Environmental Management in Kenya,' *Law, Environment and Development Journal*, Vol. 8, No. 1, 2012, p. 78.

<sup>207</sup> The Constitution interprets "natural resources" to mean the physical non-human factors and components, whether renewable or non-renewable, including—sunlight; surface and groundwater; forests, biodiversity and genetic resources; and rocks, minerals, fossil fuels and other sources of energy (Article 260).

<sup>208</sup> Generally, biodiversity is defined to include the variability among living organisms, from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems (Article 2, United Nations Environment Programme, 1760 UNTS 79; 31 ILM 818 (1992); The Convention on Biological Diversity, adopted during the Earth Summit in Rio de Janeiro, promotes biodiversity, sustainable use, and the sharing of benefits arising out of the utilization of genetic resources. The Convention provides for national reporting of efforts to implement the provisions of the Convention).

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communities; encourage public participation in the management, protection and conservation of the environment; protect genetic resources and biological diversity<sup>209</sup>; establish systems of environmental impact assessment, environmental audit and monitoring of the environment; eliminate processes and activities that are likely to endanger the environment; and utilise the environment and natural resources for the benefit of the people of Kenya.<sup>210</sup>

The Preamble to the Constitution of Kenya captures the need for concerted efforts of all, in the duty to conserve and sustainably manage the environment, since the same does not only lie against the State but also every individual person.<sup>211</sup> In relation to the foregoing obligations, the Constitution places a duty on every person to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.<sup>212</sup> Article 69(2) of the Constitution of Kenya places a duty on every person to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources.

The Constitution goes a step further to provide for active involvement of communities in sustainable environmental and natural resources matters through seeking court's intervention. Citizenry have a right of ensuring that their rights in relation to the environment are not violated, by way of litigation.<sup>213</sup> This is also

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<sup>209</sup> The Convention on Biological Diversity (CBD) adopted at the Earth Summit in Rio de Janeiro, Brazil, is a global convention which aims to achieve three objectives: the conservation of biological diversity; the sustainable use of its components; and the fair and equitable sharing of benefits from the use of genetic resources. Kenya is a signatory to this Convention and it is therefore bound by its provisions in promoting the realisation of the three objectives.

<sup>210</sup> Constitution of Kenya, Article 69(1).

<sup>211</sup> We, the people of Kenya—.....Respectful of the environment, which is our heritage, and determined to sustain it for the benefit of future generations...Committed to nurturing and protecting the well-being of the individual, the family, communities and the nation:....

<sup>212</sup> Constitution of Kenya, Article 69(2).

<sup>213</sup> Article 22(1) provides that every person has the right to institute court proceedings claiming that a right or fundamental freedom in the Bill of Rights has been denied, violated or infringed, or is threatened; Article 70(1) provides that if a person alleges that a right to a clean and healthy environment recognised and protected under Article 42 has been, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to a court for redress in addition to any other legal remedies that are available in respect to the same matter. Furthermore, on application under clause (1), the court may make any order, or give any directions, it considers appropriate— to prevent, stop or discontinue any act or omission that is harmful to the environment; to compel any public officer to take measures to prevent or discontinue any act or omission that is harmful to the environment; or to provide compensation for any victim of a violation of the right to a clean and healthy environment (Article 70(2)). For the purposes of this

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captured in the various statutes such as the *Environmental Management and Co-ordination Act*.<sup>214</sup> The Constitution also recognises the right of every person to a clean and healthy environment.<sup>215</sup>

As already observed, active participation of citizens makes them appreciate and support government efforts and also take part in conservation measures. However, there has not been meaningful participation of the public in environmental and natural resource management matters, since majority of the sectoral laws only provide for public participation as a mere formality, and not as an empowerment tool as envisaged in international human rights instruments.<sup>216</sup>

Considering that the Constitution is the supreme law of the land, all the other sectoral laws on environment and natural resources management ought to be aligned to the constitutional provisions. The reality however, is that some of the laws are yet to be aligned and thus making it difficult to achieve the constitutional objectives on environment and natural resources governance. A good example is the *Environmental Management and Co-ordination Act 1999* (EMCA), which is the environmental framework law, meant to provide for the

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Article, an applicant does not have to demonstrate that any person has incurred loss or suffered injury (Article 70(3)). The right to seek legal redress is also guaranteed under s. 3(3) of the Environmental Management and Co-ordination Act, No. 8 of 1999.

<sup>214</sup> No. 8 of 1999, Laws of Kenya, s. 3(3); See also *Environmental Management and Co-ordination (Amendment) Act, 2015* which expands the provisions to include the right to clean and healthy environment and also the right of a person to file suit on his behalf or on behalf of a group or class of persons, members of an association or in the public interest (s. 3).

<sup>215</sup> Article 42. This right includes the right—to have the environment protected for the benefit of present and future generations through legislative and other measures, particularly those contemplated in Article 69; and to have obligations relating to the environment fulfilled under Article 70

<sup>216</sup> See Principle 10 of the *Rio Declaration*, which affirms that environmental issues are best handled with participation of all concerned citizens, at the relevant level. The *Aarhus Convention* also establishes a number of rights of the public (individuals and their associations) with regard to the environment. The Convention provides for *inter alia*: the right of everyone to receive environmental information that is held by public authorities ("access to environmental information"); the right to participate in environmental decision-making ("public participation in environmental decision-making"); and the right to review procedures to challenge public decisions that have been made without respecting the two aforementioned rights or environmental law in general ("access to justice") (*Aarhus Convention*, Article 4, 5, 6 & 9 respectively). Although the *Aarhus Convention* is a European region legal instrument, its provisions have gained international recognition and approval especially considering the fact that it reflects Principle 10 of the Rio Declaration on Environment and Development); See also *Access to Information Act, 2016* which deals with disclosure of information including information on dangers of public health, safety and the environment.

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establishment of an appropriate legal and institutional framework for the management of the environment and for the matters connected therewith and incidental thereto.

An interpretation of the current wording of EMCA shows that where the framework law provides for consultations, the same are only meant to be between the state agencies charged with environmental governance. Even where a decision is likely to affect the interests of communities, the Act only provides for unilateral decision by the Cabinet Secretary in charge to ensure that such welfare is well taken care of.<sup>217</sup> Thus, it is possible to have a scenario where the protectionist approaches adopted in most of these sectoral laws end up undermining efforts towards achieving sustainable development instead of boosting the same.

### **8.2.1 Equitable Benefit Sharing for Social Sustainability**

The proposed legislation *Natural Resources (Benefit Sharing Bill)*<sup>218</sup> seeks to establish a system of benefit sharing in resource exploitation between resource exploiters, the national government, county governments and local communities, to establish the natural resources benefit sharing authority and for connected purposes. The law is to apply with respect to petroleum and natural gas, among other natural resources. It also provides for guiding principles which include transparency and inclusivity, revenue maximization and adequacy, efficiency and equity and accountability.<sup>219</sup>

There is need to actively involve communities in the implementation of this law, if enacted, to ensure that they are not left out as far as benefit sharing is concerned. The approach should be one that ensures that communities feel part of the resource management strategies and not mere spectators where they are not consulted even on the best approaches to benefit sharing.

The *Community Land Act, 2016*<sup>220</sup> gives effect to Article 63 (5) of the Constitution; provides for the recognition, protection and registration of community land rights; management and administration of community land; and provides for the role of county governments in relation to unregistered

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<sup>217</sup> See also the *Environmental (Impact Assessment and Audit) Regulations, 2003*, Legal Notice 101 of 2003, Regulation 17 which provides for public participation albeit inadequately.

<sup>218</sup> *Natural Resources (Benefit Sharing Bill)*, 2015 (Government Printer, Nairobi, 2015).

<sup>219</sup> *Ibid*, clause 4.

<sup>220</sup> Act No. 27 of 2016, Laws of Kenya.

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community land.<sup>221</sup> The Act provides that subject to any other law, natural resources found in community land should be used and managed—sustainably and productively; for the benefit of the whole community including future generations; with transparency and accountability; and on the basis of equitable sharing of accruing benefits.<sup>222</sup> This provision thus requires all those charged with administration of such jointly owned resources to not only ensure equitable sharing of accruing benefits but also sustainable and productive use and management of the same. The requirement for transparency and accountability is meant to give the community channels of ensuring that the resources are not wasted or mismanaged.

Where need for concessions arise, the Act provides that an agreement relating to investment in community land should be made after a free, open consultative process and should contain provisions on the following aspects — an *environmental, social, cultural and economic impact assessment* (emphasis added); stakeholder consultations and involvement of the community; continuous monitoring and evaluation of the impact of the investment to the community; payment of compensation and royalties; requirement to re-habilitate the land upon completion or abandonment of the project; measures to be put in place to mitigate any negative effects of the investment; capacity building of the community and transfer technology to the community; and any other matters necessary for determining how local communities will benefit from investments in their land.<sup>223</sup>

It is important to point out that if the concerned communities are to benefit through the ways contemplated above, they must be willing to take up opportunities that would be brought their way. They must be made to understand that the expected benefits will not only come in monetary terms and must be made aware of the various non-monetary forms that benefits may accrue to them, for instance, such as those envisaged under the *Nagoya Protocol*.<sup>224</sup> The various

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<sup>221</sup> Preamble, *Community Land Act*, No. 27 of 2016 (Government Printer, Nairobi, 2016).

<sup>222</sup> *Ibid*, s. 36.

<sup>223</sup> *Ibid*, s. 37.

<sup>224</sup> Annex to the *Nagoya Protocol* provides for both monetary and non-monetary forms of benefits. It envisages monetary benefits which may include, but not be limited to: access fees/fee per sample collected or otherwise acquired; up-front payments; milestone payments; payment of royalties; licence fees in case of commercialization; special fees to be paid to trust funds supporting conservation and sustainable use of biodiversity; salaries and preferential terms where mutually agreed; research funding; joint ventures; and joint ownership of relevant intellectual property rights (*Annex to the Nagoya Protocol on Access and Benefit-sharing*).

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means of accessing benefit sharing are also captured under the *Legal Notice 160 of 2006 on the Environmental Management and Co-ordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations, 2006* which makes provisions for benefit sharing on genetic resources.<sup>225</sup> These Regulations may therefore offer useful guidelines on how to ensure that genetic resources are conserved and also benefit concerned groups of people, as envisaged under the Constitution. Some of the forms of benefits would only be made possible through concerted efforts from both sides, that is, the concerned community and the investor and possibly with assistance from the county or national governments.<sup>226</sup>

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<sup>225</sup> Regulation 20 (1) without prejudice to the generality of the foregoing, the holder of an access permit shall facilitate an active involvement of Kenyan citizens and institutions in the execution of the activities under the permit. (2) The facilitation by the holder of an access permit shall include enjoyment of both monetary and non-monetary benefits arising from the right of access granted and the use of genetic resources. (3) Monetary benefits include – (a) access fees or fee per sample collected or acquired; (b) up-front payments; (c) milestone payments; (d) payment of royalties; (e) license fees in case genetic resources are to be utilized for commercial purposes; (f) fees to be paid to trust funds supporting conservation and sustainable use of biodiversity; (g) salaries and preferential terms where mutually agreed; (h) research funding; (i) joint ventures; (j) joint ownership of relevant intellectual property rights; (4) Non-monetary benefits include – (a) sharing of research and development results; (b) collaboration, co-operation and contribution in scientific research and development programmes, particularly biotechnological research activities; (c) participation in product development; (d) admittance to ex situ facilities of genetic resources and to databases by participating institutions; (e) transfer to Kenya of genetic resources of knowledge and technology under fair and most favourable terms, including concessional and preferential terms where agreed, in particular, knowledge and technology that make use of genetic resources, including biotechnology, or that are relevant to the conservation and sustainable utilization of biological diversity; (f) strengthening capacities for technology transfer to Kenya; (g) institutional capacity building; (h) human and material resources to strengthen the capacities for the administration and enforcement of access regulations; (i) training related to genetic resources with the full participation of Kenya and where possible, in Kenya; (j) access to scientific information relevant to conservation and sustainable use of biological diversity, including biological inventories and taxonomic studies; (k) institutional and professional relationships that can arise from access and benefit sharing agreements and subsequent collaborative activities; (l) joint ownership of relevant intellectual property rights.

<sup>226</sup> The Genetic Resources Research Institute (GeRRI), under the Kenya Agricultural and Livestock Research Act of 2013, a semi-autonomous research Institute, is responsible for conserving plant genetic resources, animal and microbial genetic resources. Genetic resources are essential basic building blocks utilized in research to develop improved technologies for enhanced agricultural production. This Institution should work closely with communities and other stakeholders in order to promote effective conservation and use of resources for food security assurance, agricultural resilience and economic growth, besides achieving sustainable development.



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The International Finance Corporation (IFC) suggests practical processes for sharing benefits with communities.<sup>227</sup> One of the ways that this can be achieved is through maintaining active relationships built on trust with communities through appropriate and effective communication. This implies that genuine consultations and participation in decision-making will happen whenever possible and that perceptions and expectations are closely aligned with reality. They also propose carrying out comprehensive, participatory baseline studies of the community's socioeconomic, cultural heritage, and socio-environmental context before project development, agreeing to joint objectives for the project's community programs, monitoring outcomes (including community feedback), and responding as needed. This, according to IFC, helps address misconceptions, manage expectations, and assuage fears or concerns.<sup>228</sup>

There is also the suggestion on establishing robust grievance mechanisms that are understood, accessible and linked directly to project performance measures. Where justified, third party mediation may be required.<sup>229</sup> Foundations and other long-term approaches may also be good vehicles to achieve community development objectives if they ensure broader stakeholder participation and helping identify areas of focus and consistency of priorities across actors, such as company, governments, donors, and communities. Finally, integrating project development and community development plans as

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<sup>227</sup> Lohde, L.A., *The Art and Science of Benefit Sharing in the Natural Resource Sector*, (International Finance Corporation, February 2015), p. 61. Available at [http://www.ifc.org/wps/wcm/connect/8e29cb00475956019385972fbd86d19b/IFC\\_Art+and+Science+of+Benefits+Sharing\\_Final.pdf?MOD=AJPERES&CACHEID=8e29cb00475956019385972fbd86d19b](http://www.ifc.org/wps/wcm/connect/8e29cb00475956019385972fbd86d19b/IFC_Art+and+Science+of+Benefits+Sharing_Final.pdf?MOD=AJPERES&CACHEID=8e29cb00475956019385972fbd86d19b) [Accessed on 13/07/2016].

<sup>228</sup> Ibid, p. 61.

<sup>229</sup> Article 47(1) of the Constitution of Kenya guarantees that every person has the right to administrative action that is expeditious, efficient, lawful, reasonable and procedurally fair (See also *Fair Administrative Action Act*, No. 4 of 2015). Further, Article 48 obligates the State to ensure access to justice for all persons and, if any fee is required, it shall be reasonable and shall not impede access to justice. Article 60(1) (g) provides that one of the principles of land policy in Kenya is encouragement of communities to settle land disputes through recognised local community initiatives consistent with this Constitution. Furthermore, one of the functions of the National Land Commission include to encourage the application of traditional dispute resolution mechanisms in land conflicts (Article 67(2) (f). Also relevant is Article 159(2)(c) which requires that in exercising judicial authority, the courts and tribunals should be guided by the principles which include, inter alia—promotion of alternative forms of dispute resolution including reconciliation, mediation, arbitration and traditional dispute resolution mechanisms, subject to clause (3). The foregoing provisions provide a good platform upon which communities and other stakeholders can enjoy grievance mechanisms that are easily understood, accessible and linked directly to project performance measures.

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effectively as practicable with local and national government planning to support development aspirations and balance the expectations and demands of different communities may be useful.<sup>230</sup>

There is a need to ensure that the any model that is put in place guarantees a fair and equitable benefit-sharing, with the terms and provisions which clearly spell out the model to be used in determining the accruing benefits and the associated costs, in order to determine the investments (and compromises) from all parties and stakeholders involved.<sup>231</sup>

### **8.2.2 Devolution and Sustainable Development in Kenya: Challenges and Prospects**

The United Nations Development Programme (UNDP) recommends adoption of decentralised governance of natural resources, which concerns the ownership and control of, access to and use of resources, and involves decision making and the exercise of the powers over others.<sup>232</sup> It entails the process of transferring some of the decision-making powers and responsibilities (fiscal, administrative, legal and technical) to sub-national institutions at the grassroots' levels.<sup>233</sup> According to UNDP, decentralised governance of natural resources is considered one of the key strategies for promoting sustainable management, equitable decision-making, promoting efficiency, participatory governance and equitable sharing of benefits accrued from exploitation of natural resources at the local levels.<sup>234</sup>

The Constitution provides for the role of devolved governance system in the management of natural resources and the environment. The Fourth Schedule to the Constitution<sup>235</sup> provides for the distribution of functions between the National Government and the County Governments. With regard to the environment and natural resources, the National Government obligations include protection of the environment and natural resources with a view to establishing a

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<sup>230</sup> Lohde, L.A., *The Art and Science of Benefit Sharing in the Natural Resource Sector*, (International Finance Corporation, February 2015), op cit. p. 61.

<sup>231</sup> See generally, Jonge, B.D., 'What is Fair and Equitable Benefit-sharing?' *Journal of Agricultural and Environmental Ethics*, Vol. 24, 2011, pp.127–146.

<sup>232</sup> United Nations Development Programme, *Decentralized Governance of Natural Resources*, available at <http://web.undp.org/drylands/decentralized-governance.html> [Accessed on 14/07/2016].

<sup>233</sup> Ibid.

<sup>234</sup> Ibid.

<sup>235</sup> (Article 185 (2), 186 (1) and 187 (2)), Constitution of Kenya.

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durable and sustainable system of development, including, in particular—fishing, hunting and gathering; protection of animals and wildlife; water protection, securing sufficient residual water, hydraulic engineering and the safety of dams; and energy policy.<sup>236</sup> On the other hand, the functions and powers of the county are, inter alia: implementation of specific national government policies on natural resources and environmental conservation, including— soil and water conservation; and forestry; and ensuring and coordinating the participation of communities and locations in governance at the local level and assisting communities and locations to develop the administrative capacity for the effective exercise of the functions and powers and participation in governance at the local level.<sup>237</sup>

It has rightly been observed that Governments in many developing countries have discovered the need for a decentralised approach to human development.<sup>238</sup> This is usually achieved through ceding a certain degree of authority, by way of devolution, on the local and regional levels in order to address the common difficulty in responding to local needs which may arise due to lack of information as well as bureaucratic incapacity.<sup>239</sup> This is well captured in the constitutional obligation of County Governments to ensure and coordinate the participation of communities and locations in governance at the local level, and assisting them to develop the administrative capacity for the effective exercise of the functions and powers and participation in governance.<sup>240</sup>

### **(i) State Department of Devolution**

According to the Ministry's mandate as stipulated in Executive Order no. 2 of 2013<sup>241</sup>, the Ministry of Devolution and Planning is now organized into two State Departments. These are State Department of Planning and State Department of Devolution. The State Department for Planning is to play the role of formulating and coordinating national development, mainstreaming youth into

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<sup>236</sup> Constitution of Kenya 2010, Fourth Schedule, Clause 22.

<sup>237</sup> Constitution of Kenya 2010, Fourth Schedule, clauses 10 & 14.

<sup>238</sup> Alaedini, P. & Namazi, S., 'Decentralization and Sustainable Human Development: An Analysis of Local and Municipal Councils in Iran,' *Encyclopedia of Life Support Systems* (EOLSS), p. 1. Available at [www.eolss.net/Eolss-sampleAllChapter.aspx](http://www.eolss.net/Eolss-sampleAllChapter.aspx) { Accessed on 10/07/2016 }

<sup>239</sup> Ibid.

<sup>240</sup> See Constitution of Kenya, Schedule four (*Article 185 (2), 186 (1) and 187 (2)*), Part 2.

<sup>241</sup> Republic of Kenya, Executive Order No 2 of 2013 on the Organization of Government of Kenya, (Government Printer, 2013, Nairobi).

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development and empowering them, building fairer gender equality, and tracking of development results in the economy to ensure the Ministry and the government as a whole achieve their strategic objective.<sup>242</sup>

The State Department of Devolution, on the other hand, is responsible for overall coordination of implementation of devolution policies, sustainable development policy for Northern Kenya and other Arid Lands (ASALs) and implementation of programmes and projects to provide relief to the vulnerable groups and communities in our arid and semi-arid lands.<sup>243</sup> To enable Kenya to meet the SDGs, the Strategic Plan requires the Government to set up a Sustainable Development Goals Planning Department in order to ensure alignment of the SDGs with the national development plans and to support accelerated implementation of the goals.<sup>244</sup>

### ***(ii) National Drought Management Authority***

It has been documented that in Kenya, the ASAL occupy 89% of the country and are home to about 36% of the population, 70% of the national livestock herd and 90% of the wild game that supports the country's tourism industry.<sup>245</sup> The National Drought Management Authority (NDMA) is a public body established by the National Drought Management Authority (NDMA) Act, 2016.<sup>246</sup> It is an agency of the Government of Kenya mandated to establish mechanisms which ensure that drought does not result in emergencies and that the impacts of climate change are sufficiently mitigated.

The Act gives the NDMA the mandate to exercise overall coordination over all matters relating to drought management including implementation of policies and programmes relating to drought management.<sup>247</sup> The NDMA provides a platform for long-term planning and action, as well as a mechanism for solid coordination across Government and with all other stakeholders. The

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<sup>242</sup> Republic of Kenya, *Ministry of Devolution and Planning Strategic Plan 2013/14-2017/18*, (Government Printer, 2014, Nairobi), p. viii-ix.

<sup>243</sup> *Ibid*, p.30.

<sup>244</sup> *Ibid*, p. 32.

<sup>245</sup> Para. 1.1, Draft *National Policy for the Sustainable Development of Northern Kenya and other Arid Lands 2015: Unlocking Our Full Potential for Realization of the Kenya Vision 2030*, (Government Printer, Nairobi, July 2015).

<sup>246</sup> See National Drought Management Authority Website. Available at <http://www.ndma.go.ke/index.php/features/about-ndma>. It previously operated under the State Corporations Act (Cap 446) of the Laws of Kenya by Legal Notice Number 171 of November 24, 2011.

<sup>247</sup> S. 5, National Drought Management Authority (NDMA) Act, No. 4 of 2016.

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Authority has established offices in 23 ASAL counties considered vulnerable to drought.<sup>248</sup>

The NDMA has been supporting Disaster Risk Reduction (DRR) initiatives in arid and semi-arid counties mainly based on community participatory approaches. For instance, NDMA has been implementing, with the support of the Kenya Rural Development Programme (KRDP), ASAL Drought Management project, whose main focus has been on building capacity of community planning structures to allow mainstreaming of drought risk reduction strategies in the local planning process through a Community Managed Disaster Risk Reduction (CMDRR) approach.<sup>249</sup> The CMDRR approach is meant to bring together a community to enable it to collectively address a common disaster risk and pursue disaster risk reduction measures. It includes implementation of Participatory Disaster Risk Assessment (PDRA) and development of local disaster risk reduction and response plans.<sup>250</sup>

The approach allows communities to analyse the impact of droughts on their livelihoods, identify possible preparedness and response activities to enhance resilience, and mainstream disaster risk reduction into long-term development plans.<sup>251</sup> Furthermore, the NDMA provides investment resources to implement some of the strategic DRR projects identified and prioritised by communities to enhance local resilience to drought. These projects may include, inter alia, livestock restocking and dairy goats for breed improvement.<sup>252</sup>

### **8.2.3 National Courts and Sustainable Development**

It has rightly been argued that there are other regulatory approaches to achieving environmental protection and public health that are not rights-based. These include economic incentives and disincentives, criminal law, and private

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<sup>248</sup> See National Drought Management Authority Website.

<sup>249</sup> CMDRR: Investing in participatory approaches to community empowerment, available at <http://www.ndma.go.ke/index.php/success-stories/93-cmdrr-investing-in-participatory-approaches-to-community-empowerment> [ Accessed on 09/09/2016]; See also See also Agenda 2030 for Sustainable Development Goals, Goal 11.b which requires that by 2020, countries should have substantially increased the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels.

<sup>250</sup> Ibid.

<sup>251</sup> Ibid.

<sup>252</sup> Ibid.

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liability regimes which have all formed part of the framework of international and national environmental law and health law.<sup>253</sup> For instance, the *Environmental Management and Co-ordination (Amendment) Act, 2015*<sup>254</sup> amends section 48 of EMCA by inserting subsection (3) to the effect that where a forested area is declared to be a protected area under section 54(1), the Cabinet Secretary may cause to be ascertained, any individual, community or government interests in the land and forests and should *provide incentives to promote community conservation* (emphasis added).<sup>255</sup> Such an approach can boost the State's efforts in sustainable development.

In *Peter K. Waweru v Republic*,<sup>256</sup> the Court observed that '...environmental crimes under the Water Act, Public Health Act and EMCA cover the entire range of liability including strict liability and absolute liability and ought to be severely punished because the challenge of the restoration of the environment has to be tackled from all sides and by every man and woman....' It went further to state, —...In the name of environmental justice water was given to us by the Creator and in whatever form it should never ever be the privilege of a few – the same applies to the right to a clean environment.<sup>257</sup> The Court also affirmed the broad scope of the right to clean and healthy environment by stating, *inter alia*, that 'the right of life is not just a matter of keeping body and soul together because in this modern age that right could be threatened by many things, including the environment. The right to a clean environment is primary to all creatures including man; it is inherent from the act of creation, the recent restatement in the Statutes and the Constitutions of the world notwithstanding.'<sup>258</sup>

Kenyan Courts' position in the foregoing case is also reflected in the practice by Indian Courts. The Supreme Court of India held in *Subhash Kumar v. State of Bihar*,<sup>259</sup> that the "right to life guaranteed by Article 21 of the Constitution includes the right of enjoyment of pollution-free water and air for full enjoyment of life." Further, in the case of *Dr. Mohiuddin Farooque v. Bangladesh*,

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<sup>253</sup> Shelton, D., 'Human Rights, Health and Environmental Protection: Linkages in Law and Practice: A Background Paper for the WHO,' p. 3. Available at [http://www.who.int/hhr/information/Human\\_Rights\\_Health\\_and\\_Environmental\\_Protection.pdf](http://www.who.int/hhr/information/Human_Rights_Health_and_Environmental_Protection.pdf) [Accessed on 20/07/2016].

<sup>254</sup> *Environmental Management and Co-ordination (Amendment) Act*, No. 5 of 2015, Laws of Kenya.

<sup>255</sup> S. 31, *Environmental Management and Co-ordination (Amendment) Act, 2015*.

<sup>256</sup> [2006] eKLR, Misc. Civ. Applic. No. 118 of 2004.

<sup>257</sup> p.14.

<sup>258</sup> *Ibid*, p.8.

<sup>259</sup> AIR 1991 SC 420, 1991 (1) SCC 598.

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*represented by the Secretary, Ministry of Irrigation, Water Resources and Flood Control and Others*<sup>260</sup>, the Supreme Court interpreted the right to life to include the protection and preservation of the environment and ecological balance free from pollution of air and water. In another Indian case of *K. Ramakrishnan and Others v State of Kerala and Others* (smoking case), the Court stated that “*The word ‘life’ in the Constitution has not been used in a limited manner. A wide meaning should be given to the expression ‘life’ to enable a man not only to sustain life but also to enjoy it in a full measure. The sweep of right to life conferred by Article 21 of the Constitution is wide and far-reaching so as to bring within its scope the right to pollution free air and the “right to decent environment.”*”(Emphasis added)<sup>261</sup>

Therefore, in the enforcement of other Constitutional rights such as economic and social rights and the right to life under the Constitution, courts should accord such provisions broad interpretations so as to address any environmental factors that impede access to the resources necessary for enjoyment of the right in question. These include *inter alia*, right to the highest attainable standard of health, which includes the right to health care services, including reproductive health care; to accessible and adequate housing, and to reasonable standards of sanitation; to be free from hunger, and to have adequate food of acceptable quality; and to clean and safe water in adequate quantities.<sup>262</sup>

In addition to the active role taken up by national courts, India also has the National Green Tribunal, commonly referred to as green courts, established in October 2010 under the *National Green Tribunal Act 2010*,<sup>263</sup> for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.<sup>264</sup> It is a specialised body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues.<sup>265</sup>

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<sup>260</sup> 48 DLR 1996 (SC Bangladesh, 1996).

<sup>261</sup> AIR 1999 Ker 385, p.11.

<sup>262</sup> Constitution of Kenya, Article 43(1).

<sup>263</sup> No. 19 of 2010, Laws of India.

<sup>264</sup> National Green Tribunal, available at <http://www.greentribunal.gov.in/> [Accessed on 28/07/2016].

<sup>265</sup> Ibid; Pradeep, B. & Madhur, Y., ‘New Judicial Roles and Green Courts in India,’ available at [http://inece.org/conference/9/papers/Bakshi\\_India\\_Final.pdf](http://inece.org/conference/9/papers/Bakshi_India_Final.pdf) [Accessed on 28/07/2016].

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The advantage with the green tribunal of India is that it is administered by persons with specialised knowledge and experience in environmental matters and they may not necessarily be judicial officers. It thus combines expert members with judicial officers. This is arguably a better approach than the Kenyan one where the Environment and Land Court comprises exclusively judicial officers, albeit with judicial training.<sup>266</sup> Having on board non-judicial members with specialised knowledge in environmental matters may help come up with better approaches to environmental and natural resource management. Access to environmental justice also becomes easier.<sup>267</sup> They can work more closely with mainstream courts to promote sustainable development.

The Court should step in and protect the environment without necessarily looking for immediate proof of likely violation of the right to a clean and healthy environment. To facilitate the same, the Constitution gives courts the power to make any order, or give any directions, it considers appropriate – to prevent, stop or discontinue any act or omission that is harmful to the environment, or to any public officer to take measures to prevent or discontinue any act or omission that is harmful to the environment, or to provide compensation for any victim of a violation of the right to a clean and healthy environment.<sup>268</sup> An applicant seeking such orders from courts does not have to demonstrate that any person has incurred loss or suffered injury. The Constitution provides that an applicant does not have to demonstrate that any person has incurred loss or suffered injury.<sup>269</sup> However, to succeed in their plea one must demonstrate that their Right under Article 42 has been or is likely to be denied, violated, infringed or threatened.<sup>270</sup>

The *suo moto* powers of the Court in environmental matters is also reflected under provisions of the *Environment and Land Act*.<sup>271</sup> It is also

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<sup>266</sup> Persons with specialised training can only appear as witnesses or to furnish in writing or otherwise, and to confirm on oath or affirmation, such expert opinion as may be relevant to any of the issues in the proceedings. (S. 19(4), *Environment and Land Court Act, 2011*).

<sup>267</sup> Desai, B.H. & Sidhu, B., 'On the Quest for Green Courts in India,' *Journal of Court Innovation*, Vol.3, No. 1, 2010, pp. 79-111.

<sup>268</sup> Constitution of Kenya, 2010, Article 70(2).

<sup>269</sup> Constitution of Kenya, 2010, Article 70(3); See also s. 3(1) of Environment (Management and Conservation) Act, 1999 (EMCA)

<sup>270</sup> *Joseph Owino Muchesia & another v Joseph Owino Muchesia & another* [2014] eKLR, para. 34.

<sup>271</sup> No 19 of 2011, Laws of Kenya. S. 20(1)-Nothing in this Act may be construed as precluding the Court from adopting and implementing, on its own motion, with the agreement of or at the request of the parties, any other appropriate means of alternative dispute resolution including



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important to point out that the Courts are under a constitutional obligation under Article 10 to uphold the principles of sustainable development. This includes protecting the environment for the sake of future generations. The Court should, like in the case of *Peter K. Waweru (supra)*, be proactive in promoting environmental protection and conservation for sustainable development. Courts can take proactive measures to ensure conservation and protection of the environment for sustainable development. They can ensure that communities and other private persons enjoy environmental democracy especially where such communities approach courts seeking justice and access to environmental information, and demand enforcement of environmental laws or compensation for damage. Courts can work closely with such local bodies to adequately and peaceably address conflict or disputes. Where state decision makers or such local bodies or tribunals attempt to bypass the legal requirements on public participation in decision-making in matters that greatly affect the livelihoods of a particular group of people, courts can use its constitutional powers to enforce and uphold the law.

### **8.2.4 Community Empowerment for Sustainable Use and Management of Natural Resources**

Empowerment of the citizenry is important to enable them carry out their duties towards environmental management effectively. The fact that the Constitution of Kenya<sup>272</sup> and EMCA<sup>273</sup> have already dispensed with the need to prove locus standi in environmental matters litigation presents a good opportunity for the citizenry, through relevant support, to hold government and private entities accountable as far as management of environmental resources is concerned.

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conciliation, mediation and traditional dispute resolution mechanisms in accordance with Article 159(2) (c) of the Constitution.

(2) Where alternative dispute resolution mechanism is a condition precedent to any proceedings before the Court, the Court shall stay proceedings until such condition is fulfilled.

<sup>272</sup> For the purposes of this Article, an applicant does not have to demonstrate that any person has incurred loss or suffered injury (Article 70(3)).

<sup>273</sup> S.3 (4) A person proceeding under subs. (3) of this s. shall have the capacity to bring an action notwithstanding that such a person cannot show that the defendant's act or omission has caused or is likely to cause him any personal loss or injury provided that such action – (a) is not frivolous or vexatious; or (b) is not an abuse of the court process.

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In the case of *Joseph Leboo & 2 others v Director Kenya Forest Services & another*<sup>274</sup> the Learned Judge observed that “...in my view, any person is free to raise an issue that touches on the conservation and management of the environment, and it is not necessary for such person to demonstrate, that the issues being raised, concern him personally, or indeed, demonstrate that he stands to suffer individually. Any interference with the environment affects every person in his individual capacity, but even if there cannot be demonstration of personal injury, such person is not precluded from raising a matter touching on the management and conservation of the environment....Any person, without the need of demonstrating personal injury, has the freedom and capacity to institute an action aimed at protecting the environment. The plaintiffs have filed this suit as representatives of the local community and also in their own capacity. The community, of course, has an interest in the preservation and sustainable use of forests. Their very livelihoods depend on the proper management of the forests. Even if they had not demonstrated such interest that would not have been important, as any person *who alleges a violation of any law touching on the environment is free to commence litigation to ensure the protection of such environment....*”<sup>275</sup> (emphasis added)

However, such suits require that the particular persons be first empowered through the relevant information, acquired either through formal, informal or non-formal education or general awareness on the relevant matters. The right to information must therefore be realized to facilitate enjoyment of environmental rights. This can be achieved through implementation of Article 35 of the Constitution, and other enabling laws, which guarantee the right to information.<sup>276</sup>

It has rightly been argued that citizens are one of a nation's greatest resources for enforcing environmental laws and regulations. This is because they know the country's land and natural attributes more intimately than a government ever

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<sup>274</sup> [2013] eKLR, Environment and Land No. 273 of 2013.

<sup>275</sup> Ibid, Paras 25 & 28.

<sup>276</sup> Article 35(1) states that every citizen has the right of access to—(a) information held by the State; and (b) information held by another person and required for the exercise or protection of any right or fundamental freedom. Also relevant is the *Access to Information Act, 2015*, which is intended to give effect to Article 35 of the Constitution; to confer on the Commission on Administrative Justice the oversight and enforcement functions and powers and for connected purposes. It classifies environmental information as part of the information that falls under information affecting public interest.

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will.<sup>277</sup> Further, their number makes them more pervasive than the largest government agency, and because citizens work, play, and travel in the environment, each has a personal stake in its beauty, health, and permanence.<sup>278</sup> Agenda 21 also tasks the Government to do all that is necessary in giving communities a large measure of participation in the sustainable management and protection of the local natural resources in order to enhance their productive capacity.<sup>279</sup>

Thus, it is important to ensure that the principle of public participation is well captured in the policy and legal framework to facilitate sustainable management and conservation of environmental resources through approaches that are inclusive, participatory and deliberative as contemplated under the international environmental law. The need for involvement of citizens in the environmental enforcement process has been recommended for several reasons. First, citizen participation in environmental enforcement taps the direct, immediate connection between individuals and their environment. This is because citizens are uniquely knowledgeable about their own communities. Their day-to-day observations give them access to information about environmental conditions that the government could never obtain. Involving citizens in environmental enforcement encourages productive use of this information.<sup>280</sup> Second, the injection of varied, non-institutional perspectives and information sources into the enforcement process may improve the quality of enforcement decisions. Allowing and encouraging views from different groups to affect the outcome, may increase compliance, deter violations, and contribute to a more realistic and responsive environmental enforcement strategy.<sup>281</sup>

Finally, public involvement in enforcement is believed to be a logical next step for democratic political systems that have encouraged public participation in the creation of environmental statutes and regulations.<sup>282</sup> Allowing citizens to have a concrete role in implementing the regime they helped to design

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<sup>277</sup> Roberts E. & Dobbins J., 'The Role of the Citizen in Environmental Enforcement,' (Environmental Law Institute. 1616 P Street. N.W. Washington. DC 20036, USA).

Available at <http://www.inece.org/2ndvoll/roberts.htm> [Accessed on 21/07/2016]

<sup>278</sup> Ibid.

<sup>279</sup> Agenda 21, clause 3.7(d).

<sup>280</sup> Roberts E. & Dobbins J., 'The Role of the Citizen in Environmental Enforcement,' op cit.

<sup>281</sup> Ibid.

<sup>282</sup> Ibid; See also generally Rondinelli, D.A. (ed.), 'Public Administration And Democratic Governance: Governments Serving Citizens,' *7th Global Forum on Reinventing Government Building Trust in Government* 26-29 June 2007, Vienna, Austria, (United Nations, ST/ESA/PAD/SER.E/, United States of America, 2006).

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strengthens public support for and awareness of environmental goals.<sup>283</sup> If citizens are denied a role in enforcement, or if they are not educated about and encouraged to assume a permitted role, even the most sophisticated system of environmental protection laws may exist only on paper. As such, developing and nurturing a role for the citizens in enforcement efforts could provide the missing ingredient necessary to make countries' environmental protection goals a reality.<sup>284</sup>

In her acceptance speech, Nobel Laureate, the late Prof. Wangari Maathai, summarised the importance of environmental resources to livelihood sustenance and the central role that citizenry can play in solving environmental problems by stating that: *“.....So, together, we have planted over 30 million trees that provide fuel, food, shelter, and income to support their children's education and household needs. The activity also creates employment and improves soils and watersheds. Through their involvement, women gain some degree of power over their lives, especially their social and economic position and relevance in the family....Initially, the work was difficult because historically our people have been persuaded to believe that because they are poor, they lack not only capital, but also knowledge and skills to address their challenges. Instead they are conditioned to believe that solutions to their problems must come from 'outside'. Further, women did not realize that meeting their needs depended on their environment being healthy and well managed. They were also unaware that a degraded environment leads to a scramble for scarce resources and may culminate in poverty and even conflict....In order to assist communities to understand these linkages, we developed a citizen education program, during which people identify their problems, the causes and possible solutions. They then make connections between their own personal actions and the problems they witness in the environment and in society.... (Emphasis added).”*<sup>285</sup>

To facilitate more equitable distribution of accruing benefits among local, often subsistence, and indigenous peoples, there are those who advocate for

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<sup>283</sup> Ibid; See also Casey-Lefkowitz, n et al, ‘The Evolving Role Of Citizens In Environmental Enforcement,’ *Fourth International Conference On Environmental Compliance And Enforcement*,

available at <http://www.inece.org/4thvol1/futrell.pdf> [Accessed on 16/07/2016]

<sup>284</sup> Ibid.

<sup>285</sup> The Norwegian Nobel Institute, ‘Wangari Maathai: The Nobel Lecture (Oslo, December 10, 2004),’ available at [http://nobelpeaceprize.org/en\\_GB/laureates/laureates-2004/maathai-lecture/](http://nobelpeaceprize.org/en_GB/laureates/laureates-2004/maathai-lecture/) [Accessed on 16/07/2016].

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approaches incorporating community based natural resource management (CBNRM) and other approaches that protect the interests of the local people. The CBNRM approach is built upon three assumptions: management responsibility over the local natural resources that is devolved to community level will encourage communities to use these resources up to sustainable levels; the “community” represents the interests of all its members; and communities are keen to accept management responsibility because they see the (long-term) economic benefits of sustainable utilisation, and they are willing to invest time and resources in natural resource management.<sup>286</sup>

Decisions on policies and programs for resource management need to be based on broad citizen participation and the engagement of rural communities that have often been disenfranchised or marginalized.<sup>287</sup> Some of the main features of the revised policy framework for forest conservation and sustainable management include, inter alia: the devolution of community forest conservation and management, implementation of national forest policies and strategies, deepening the community participation in forest management through elaborate strategies of strengthening of community forestry associations, and the introduction of benefit-sharing arrangements; the adoption of an ecosystem approach for the management of forests, and recognition of customary rights, the vulnerable and marginalized groups, and user rights that support sustainable forest management and conservation; and the establishment of national programmes to support community forest management and afforestation/reforestation on community and private land.<sup>288</sup>

### **8.2.5 Environmental Impact Assessment, Environmental Audit and Monitoring of the Environment**

The Constitution of Kenya requires the State to establish systems of environmental impact assessment, environmental audit and monitoring of the

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<sup>286</sup> Shackelton, S. & Campbell, B. (eds), ‘Empowering Communities to Manage Natural Resources: Case Studies from Southern Africa,’ Center for International Forestry Research, March 2000, p. 10.

Available at [http://www.cifor.org/publications/pdf\\_files/Books/Empowering.pdf](http://www.cifor.org/publications/pdf_files/Books/Empowering.pdf) [Accessed on 20/07/2016].

<sup>287</sup> InterAction, *Environment & Climate: Overview-Our Work*, available at <https://www.interaction.org/project/environment/overview> [Accessed on 6/07/2016].

<sup>288</sup> Draft National Forest Policy, 2015, pp. i-ii.

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environment.<sup>289</sup> The *Environment (Management and Coordination) Act* (EMCA)<sup>290</sup> tasks National Environmental Management Authority (NEMA) with the responsibility of carrying out Environmental Audit of all activities that are likely to have significant effect on the environment. While Environmental Impact Assessment is conducted before commencement of any new development to minimise negative environmental impacts, for ongoing activities, an Environmental Audit ascertains if the activities in question have significant environmental effects.<sup>291</sup>

In Kenya, an environmental impact assessment study preparation is generally required to take into account environmental, social, cultural, economic, and legal considerations, and should—identify the anticipated environmental impacts of the project and the scale of the impacts; identify and analyze alternatives to the proposed project; propose mitigation measures to be taken during and after the implementation of the project; and develop an environmental management plan with mechanisms for monitoring and evaluating the compliance and environmental performance which should include the cost of mitigation measures and the time frame of implementing the measures.<sup>292</sup>

Principle 17 of the *Rio Declaration on Environment and Development*, states that environmental impact assessment, as a national instrument, should be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority. Effective Environmental Impact Assessment (EIA) has been described as ‘a process for identifying and considering the impacts of an action’. It is ‘not about rejecting development; rather it is about making sure that development proceeds with full knowledge of the environmental consequences’.<sup>293</sup> EIA may provide an opportunity for public scrutiny and participation in decision-making; introduce elements of independence and impartiality; and facilitate better informed judgments when balancing environmental and developmental needs.<sup>294</sup>

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<sup>289</sup> Constitution of Kenya, 2010, Article 69(1) (f).

<sup>290</sup> No. 8 of 1999, Laws of Kenya (Government Printer, Nairobi, 1999), s.68.

<sup>291</sup> FAO, ‘Environmental Impact Assessment (EIA) and Environmental Auditing (EA),’ available at <http://www.fao.org/docrep/005/v9933e/v9933e02.htm> [Accessed on 20/07/2016].

<sup>292</sup> Regulation 16, *Environmental (Impact Assessment and Audit) Regulations, 2003*, Legal Notice 101 of 2003.

<sup>293</sup> Ingelson, A., et al, ‘Philippine Environmental Impact Assessment, Mining and Genuine Development,’ *Law, Environment and Development Journal*, Vol. 5, No. 1, 2009, p. 7.

<sup>294</sup> Birnie, P. & Boyle, A., “*International Law and the Environment*”, (2<sup>nd</sup> ed. Oxford University Press, 2002), p.131-132; See also Muigua, K., ‘Environmental Impact Assessment (EIA) in

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Public participation is believed to be an integral part of the environmental impact assessment process as it creates an opportunity for concerned citizens to express their views on natural resource development.<sup>295</sup> Public participation is also encouraged under EIA because, after stakeholders have had the opportunity to express their opinions, they may be more inclined to accept the final outcome decided by the regulators, as they have had the opportunity to express their views.<sup>296</sup>

The mandatory requirements for Environmental Impact Assessment, Strategic Environmental Assessment<sup>297</sup> and Strategic Environmental and Social Assessment (SESA) also present viable channels through which communities can actively participate in sustainable development agenda in the country.<sup>298</sup> They can participate in averting environmental degradation or help stop development projects that are likely to water down efforts towards achieving sustainable development. Section 115 of the *County Government Act 2012*<sup>299</sup> provides that Public participation in the county planning processes should be mandatory and should be facilitated through— mechanisms provided for in Part VIII<sup>300</sup> of the Act; and provision to the public of clear and unambiguous information on any matter under consideration in the planning process, including—clear *strategic environmental assessments* (emphasis added); clear

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Kenya,' available at <http://www.kmco.co.ke/attachments/Article/109/A%20Paper%20on%20Environmental%20impact%20assessment.pdf>

<sup>295</sup> Ingelson, A., et al, 'Philippine Environmental Impact Assessment, Mining and Genuine Development,' op cit, p. 6; See also Okello, N., et al, 'The doing and un-doing of public participation during environmental impact assessments in Kenya,' *Impact Assessment and Project Appraisal*, Vol. 27, No.3, 2009, pp.217-226.

<sup>296</sup> Ibid, p. 6.

<sup>297</sup> "strategic environmental assessment" means a formal and systematic process to analyse and address the environmental effects of policies, plans, programmes and other strategic initiatives (s.2, *Environmental Management and Co-ordination (Amendment) Act*, No. 5 of 2015); S. 57A, EMCA, No. 8 of 1999; See also the *Environmental (Impact Assessment and Audit) Regulations, 2003*, Legal Notice 101 of 2003, Regulations 42 & 43.

<sup>298</sup> One of the Policy Statements in the *National Environment Policy 2013* is that the Government will ensure Strategic Environmental Assessment (SEA), Environmental Impact Assessment, Social Impact Assessment and Public participation in the planning and approval of infrastructural projects (para. 5.6).

<sup>299</sup> An Act of Parliament to give effect to Chapter Eleven of the Constitution; to provide for county governments' powers, functions and responsibilities to deliver services and for connected purposes.

<sup>300</sup> Ibid, Ss. 87-92.

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environmental impact assessment reports; expected development outcomes; and development options and their cost implications.

Involving communities in identifying and eliminating processes and activities that are likely to endanger the environment is recommended since communities are conscious of such activities that can compromise their livelihoods. This may be informed by the *principle of subsidiarity*, where, arguably, the local communities are the best placed to address the burning environmental issues such as pollution, degradation and over-utilisation (emphasis added).<sup>301</sup> They only need technical support from the Government and through collaboration, they can come up with lasting solutions. Where they are not well informed, public awareness through civic education and agricultural field trainings can help them identify the issues. Where funds are allocated for environmental protection, the local people should adequately be represented in deciding the most urgent issues that ought to be addressed. The various sectoral laws, including wildlife, water, forests and wetlands have come up with special kitty to facilitate conservation and effective management of resources. Communities ought to be evidently and adequately represented in committees dealing with such kitty to curb corruption and improve management.

There is also need to establish efficient systems of Strategic Environmental Assessment (SEA), Environmental Impact Assessment (EIA), Strategic Environmental and Social Assessment (SESA) and Environmental Audit and Monitoring of the environment and Environmental Security Assessment (ESA). Strategic Environmental Assessment (SEA) is defined as the process by which environmental considerations are required to be fully integrated into the preparation of *policies, plans and programmes* and prior to their final adoption (emphasis added).<sup>302</sup> The objectives of the SEA process are

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<sup>301</sup> See the *East African Community Protocol on Environment and Natural Resources Management*, 2005. Article 4 (2) (p). One of the principles of environment and natural resources management is: the principle of subsidiarity in the management of the environment and natural resources; See also generally, *Protocol (No 2) on the application of the principles of subsidiarity and proportionality*, annexed to the Treaty on European Union and the Treaty on the Functioning of the European Union by the Treaty of Lisbon of 13 December, 2007; See also Article 5 of the Treaty on European Union, C 326/1.

<sup>302</sup> Environmental protection Agency, 'Strategic Environmental Assessment,' Available at <http://www.epa.ie/monitoringassessment/assessment/sea/#.Vi5tmGuJ2CA>. S. 57(2), EMCA, provides that for the avoidance of doubt, the plans, programmes and policies (referred to in the Act) are those that are- (a) subject to preparation or adoption by an authority at regional, national, county or local level, or which are prepared by an authority for adoption through a legislative procedure by Parliament, Government or if regional, by agreements between the governments or



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to provide for a high level of protection of the environment and to promote sustainable development by contributing to the integration of environmental considerations into the preparation and adoption of specified policies, plans and programmes.<sup>303</sup> Environmental impact assessment means a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment.<sup>304</sup> Environmental audit means the systematic, documented, periodic and objective evaluation of how well environmental organisation, management and equipment are performing in conserving or preserving the environment.<sup>305</sup> Strategic Environmental and Social Assessment (SESA) is a more effective tool since it integrates the social issues that are likely to emerge and not just the environmental considerations.<sup>306</sup>

These exercises should not be just a matter of formality and paper work.<sup>307</sup> The affected communities should be afforded an opportunity to

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regional authorities, as the case may be; (b) determined by the Authority as likely to have significant effects on the environment.

<sup>303</sup> Ibid; See also the *Environmental (Impact Assessment and Audit) Regulations, 2003*, Legal Notice 101 of 2003, Regulations 42 & 43.

<sup>304</sup> *Environmental Management and Co-Ordination Act, No 8 of 1999* (Government Printer, Nairobi, 1999), s.2.

<sup>305</sup> Ibid.

<sup>306</sup> Notably, the proposed law, *Energy Bill, 2015*, requires under clause 135 (1) (2)(d) that a person who intends to construct a facility that produces energy using coal should, before commencing such construction, apply in writing to the Authority for a permit to do so. Such an application must be accompanied by, inter alia, a Strategic Environment Assessment and Social Impact Assessment licenses. Also notable are the provisions of s. 57A(1) of the *Environmental Management Co-ordination (Amendment) Act 2015* which are to the effect that all policies, plans and programmes for implementation shall be subject to Strategic Environmental Assessment.

<sup>307</sup> See generally, United Nations, *Environmental Impact Assessment and Strategic Environmental Assessment: Towards an Integrated Approach*, (UNEP, 2004). Available at <http://www.unep.ch/etw/publications/textONUbr.pdf> [Accessed on 20/07/2016];

See also The World Bank, 'Strategic Environmental Assessment,' September 10, 2013. Available at <http://www.worldbank.org/en/topic/environment/brief/strategic-environmental-assessment> [Accessed on 26/10/2015]. The World Bank argues that policy makers in are subject to a number of political pressures that originate in vested interests. The weaker the institutional and governance framework in which sector reform is formulated and implemented, the greater the risk of regulatory capture. The World Bank observes that in situations such as these, the recommendations of environmental assessment are often of little relevance unless there are constituencies that support them, and with sufficient political power to make their voices heard in the policy process. While strong constituencies are important during the design of sector reform, they are even more important during implementation. It follows that effective environmental assessment in sector reform requires strong constituencies backing up recommendations, a system to hold policy makers accountable for their decisions, and institutions that can balance competing and, sometimes, conflicting interests. The World Bank thus affirms its recognition of

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meaningfully participate and give feedback on the likely effects on social, economic and environmental aspects of the community.

### **8.2.6 Addressing Climate Change for Sustainable Development**

*The Bali Principles of Climate Justice of 2002* (Bali Principles)<sup>308</sup> acknowledge that if consumption of fossil fuels, deforestation and other ecological devastation continues at current rates, it is certain that climate change will result in increased temperatures, sea level rise, changes in agricultural patterns, increased frequency and magnitude of "natural" disasters such as floods, droughts, loss of biodiversity, intense storms and epidemics. Further, deforestation contributes to climate change, while having a negative impact on a broad array of local communities.

The Bali Principles also affirm the fact that the impacts of climate change are disproportionately felt by small island states, women, youth, coastal peoples, local communities, indigenous peoples, fisherfolk, poor people and the elderly. Also noteworthy is the assertion that the local communities, affected people and indigenous peoples have been kept out of the global processes to address climate change. The Principles also acknowledge that unsustainable production and consumption practices are at the root of this and other global environmental problems. The impacts of climate change also threaten food sovereignty and the security of livelihoods of natural resource-based local economies. They can also threaten the health of communities around the world-especially those who are vulnerable and marginalized, in particular children and elderly people. More importantly, the *Bali Principles* acknowledge in the preamble that combating climate change must entail profound shifts from unsustainable production, consumption and lifestyles, with industrialized countries taking the lead.<sup>309</sup>

It has rightly been argued that forest and landscape restoration is about more than just trees. It goes beyond afforestation, reforestation, and ecological restoration to improve both human livelihoods and ecological integrity. Key characteristics include the following: Local stakeholders are actively engaged in decision making, collaboration, and implementation; whole landscapes are

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the strategic environmental assessment (SEA) as a key means of integrating environmental and social considerations into policies, plans and programs, particularly in sector decision-making and reform.

<sup>308</sup> Available at <http://www.ejnet.org/ej/bali.pdf> [Accessed on 28/07/2016].

<sup>309</sup> Though non-binding, the *Bali Principles* give some recommendations that can boost efforts to achieve sustainable development.

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restored, not just individual sites, so that trade-offs among conflicting interests can be made and minimized within a wider context; landscapes are restored and managed to provide for an agreed, balanced combination of ecosystem services and goods, not only for increased forest cover; a wide range of restoration strategies are considered, from managed natural regeneration to tree planting; and continuous monitoring, learning, and adaptation are central.<sup>310</sup>

Further, a restored landscape can accommodate a mosaic of land uses such as agriculture, protected reserves, ecological corridors, regenerating forests, well-managed plantations, agroforestry systems, and riparian plantings to protect waterways. Restoration must complement and enhance food production and not cause natural forests to be converted into plantations.<sup>311</sup>

Principle 8(a) of the *Forest Principles of the United Nations Conference on Environment and Development* (UNCED)<sup>312</sup> affirm that efforts should be undertaken towards the greening of the world. Thus, all countries, including developed countries, should take positive and transparent action towards reforestation, afforestation and forest conservation, as appropriate.<sup>313</sup>

*Draft National Forest Policy, 2015*<sup>314</sup> provides for a framework for improved forest governance, resource allocation, partnerships and collaboration with the state and non-state actors to enable the sector contribute in meeting the country's growth and poverty alleviation goals within a sustainable environment.<sup>315</sup> The overall goal of the Policy is sustainable development, management, utilisation and conservation of forest resources and equitable

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<sup>310</sup> World Resources Institute, 'Atlas of Forest and Landscape Restoration Opportunities,' available at <http://www.wri.org/resources/maps/atlas-forest-and-landscape-restoration-opportunities> [Accessed on 13/07/2016].

<sup>311</sup> Ibid.

<sup>312</sup> *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests*, Report Of The United Nations Conference On Environment And Development (Rio De Janeiro, 3-14 June 1992), Annex III: Non-Legally Binding Authoritative Statement Of Principles For A Global Consensus on The Management, Conservation and Sustainable Development of All Types of Forests, A/CONF.151/26 (Vol. III).

<sup>313</sup> Furthermore, Principle 8(b) provides that efforts to maintain and increase forest cover and forest productivity should be undertaken in ecologically, economically and socially sound ways through the rehabilitation, reforestation and re-establishment of trees and forests on unproductive, degraded and deforested lands, as well as through the management of existing forest resources.

<sup>314</sup> *Forest Policy, 2015* (Government Printer, Nairobi, 2015).

<sup>315</sup> Ibid, para. 1.1.9.

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sharing of accrued benefits for the present and future generations of the people of Kenya.<sup>316</sup>

The *Draft National Forest Policy, 2015* acknowledges that to achieve the national forest cover target of 10% of land area, the major afforestation effort will have to be in community and private lands. It also states that at present, tree cover on farms is increasing, especially in more densely populated with higher agricultural potential areas. This, according to the Policy, demonstrates that farmers recognize the benefits of tree growing in improving land productivity.<sup>317</sup> The Policy thus also recommends that the Government should, inter alia, promote partnerships with land owners to increase on-farm tree cover and to reduce pressure on reserved forests.<sup>318</sup>

Further, the Policy emphasizes that participatory forest management and sound conservation practice has potential to improve forest protection, management and growth by involving relevant non-state actors and local communities in planning and implementation.<sup>319</sup>

The *Draft National Land Use Policy 2016* requires that to address the low vegetation cover with other competing land uses, the government should: carry out an inventory of all land cover classifications; establish mechanisms to ensure protection and improvement of vegetation cover over time; incorporate multi stake holder participation in a forestation programmes and initiatives; develop a framework for incentives to encourage maintenance of forest cover; promote the use of alternatives and efficient production methods to reduce demand on forest products; and ensure public participation in stakeholder forums in the determination of planning zones.<sup>320</sup>

It has been asserted that land users require long-term secure rights to use and harvest a piece of land before they will invest time and effort in sustaining its long-term productivity.<sup>321</sup> As a result of past land alienation policies, a significant portion of much of the developing world's forest lands now falls

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<sup>316</sup> Para. 3.1.

<sup>317</sup> Para. 4.5.

<sup>318</sup> Ibid.

<sup>319</sup> Para. 8.2.

<sup>320</sup> Draft National Land Use Policy 2016, para. 3.8.3.

<sup>321</sup> Lamb, D. & Gilmour, D., *Rehabilitation and Restoration of Degraded Forests*. IUCN, Gland, Switzerland and Cambridge, UK and WWF, Gland, Switzerland, 2003. x +110 pp. at p. 66. Available at [http://cmsdata.iucn.org/downloads/rehabilitation\\_and\\_restoration\\_of\\_degraded\\_forests.pdf](http://cmsdata.iucn.org/downloads/rehabilitation_and_restoration_of_degraded_forests.pdf) [Accessed on 13/07/2016].

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within the public domain, and has become a de facto open access resource.<sup>322</sup> If the people using these resources have no enforceable legal or customary rights (to cultivate, graze or collect forest products) they have no incentive to conserve the productive potential of the resources (soil, water, vegetation and animals). Tenurial systems are therefore important in any aspect of natural resource management.<sup>323</sup> Therefore, in many countries it is unlikely that any real progress can be made toward sustainable forest management or forest landscape restoration until tenure issues are addressed and resolved. Arguably, resolution will only come by engaging key interest groups in a participatory and constructive dialogue with a commitment to an equitable outcome.<sup>324</sup>

In a bid to deal with some of the highlighted challenges, the *Forest Conservation and Management Act, 2016*<sup>325</sup> was enacted to give effect to Article 69 of the Constitution with regard to forest resources; to make provision for the conservation and management of forests; and for connected purposes. The Act applies to all forests on public, community and private lands.<sup>326</sup> The guiding principles of the law include: public participation and community involvement in the management of forests; and consultation and co-operation between the national and county governments. The Act also requires the Cabinet Secretary, in consultation with the relevant stakeholders, develop a national forest management policy for the sustainable use of forests and forest resources, and which must be reviewed at least once in every five years.<sup>327</sup>

While the Act has attempted to create opportunities for community participation, the same falls short of constitutional threshold of active community participation in decision making. It also largely adopts the protectionist approach of its predecessors, where communities are only to receive instructions from the state organs and also receive some of the forest resources as mere incentives and not benefits adequate to make them appreciate conservation agenda of the state. Unilateral efforts to achieve at least ten percent tree cover may not bear much

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<sup>322</sup> Ibid.

<sup>323</sup> Ibid; see generally, *Rethinking Forest Partnerships and Benefit Sharing: Insights on Factors and Context that Make Collaborative Arrangements Work for Communities and Landowners*, Report No. 51575-GLB, (The International Bank for Reconstruction and Development / The World Bank, Washington, DC, 2009).

<sup>324</sup> Ibid, pp. 66-7.

<sup>325</sup> No. 34 of 2016 ( Government printer, Nairobi, 2016).

<sup>326</sup> Ibid, s.3.

<sup>327</sup> Ibid, s.5.

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fruits since communities may feel used by the State organs without necessarily benefiting from the same.

Deforestation contributes to climate change and thus, it must be tackled as one of the means of achieving the sustainable development agenda. Kenya's efforts towards climate change mitigation are commendable. In March 2012, NEMA obtained accreditation as a National Implementing Entity (NIE) by the Adaptation Fund Board of the United Nations Framework Convention on Climate Change (UNFCCC)<sup>328</sup>. This accreditation gave NEMA the mandate to offer vetting, approval and supervision of projects financed by the Adaptation Fund.<sup>329</sup> Later on, NEMA submitted the Kenya Climate Change Adaptation Programme (KCCAP) Proposal to the AF Board for its consideration. The Proposal was approved and NEMA received approximately Ksh.1 Billion for its implementation. The National Environment Management Authority launched a Sh1 billion climate change programme in January 2016, titled 'Integrated Programme to Build Resilience to Climate Change and Adaptive Capacity of Vulnerable Communities in Kenya' that will be implemented in 14 counties. The programme is to be implemented in conjunction with three executing entities namely Coast Development Authority, Kenya Forestry Research Institute and Tana and Athi River Development Authority and eight other Sub Executing Entities.<sup>330</sup> The Green Climate Fund (GCF) is a finance mechanism established under the UNFCCC.

Furthermore, the Green Climate Fund (GCF)<sup>331</sup> accepted the application of National Environment Management Authority (NEMA) based on its eligibility

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<sup>328</sup> The ultimate objective of the Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. (UN General Assembly, *United Nations Framework Convention on Climate Change : resolution / adopted by the General Assembly*, 20 January 1994, A/RES/48/189, Article 2)

<sup>329</sup> National Environment Management Authority, 'Adaptation Fund and GCF programmes,' available at [http://www.nema.go.ke/index.php?option=com\\_content&view=Article&id=229&Itemid=461](http://www.nema.go.ke/index.php?option=com_content&view=Article&id=229&Itemid=461) [Accessed on 28/07/2016].

<sup>330</sup> Ibid.

<sup>331</sup> This fund is established to fund climate change adaptation and mitigation projects in developing countries. The Fund is a unique global initiative to respond to climate change by investing into low-emission and climate-resilient development. GCF is accountable to the United

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to be accredited as an Implementing Entity (IE) under the Green Climate Fund. The decision was made during the twelfth meeting of the GCF Board, held from 8th to 10th March 2016, in Songdo, Korea.<sup>332</sup> NEMA is thus the national implementing entity for Adaptation Fund project pipeline in Kenya. Following the GCF accreditation, NEMA has become the first government institution in Kenya, accredited to have direct access for GCF funding of up to USD 10 million, having submitted its application in May 2015.<sup>333</sup>

In addition to the foregoing, the *National Climate Change Response Strategy 2010* (NCCRS)<sup>334</sup>, has identified the forestry sector as a strong vehicle for undertaking both mitigation and adaptation efforts and intends to exploit incentives provided within the framework of UNFCCC, especially the Reducing Emissions from Deforestation and Forest Degradation (REDD) mechanism, to implement sustainable forest management approaches.<sup>335</sup>

Kenya is also an observer country to the UN-REDD Programme and it is a participant country to the Forest Carbon Partnership Facility (FCPF).<sup>336</sup> As part of its FCPF programme, Kenya is well on its way to developing its National REDD+ Strategy and implementation framework, in addition to establishing a Forest Reference Level/Reference Emission Level and a National Forest Monitoring System.<sup>337</sup>

Kenya has already put in place the *Climate Change Act*<sup>338</sup> to provide for a regulatory framework for enhanced response to climate change; to provide for mechanisms and measures to achieve low carbon climate development, and for

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Nations. It is guided by the principles and provisions of the UN Framework Convention on Climate Change (UNFCCC). It is governed by a Board of 24 members, comprising an equal number of members from developing and developed countries. The Green Climate Fund is the only stand-alone multilateral financing entity whose sole mandate is to serve the Convention and that aims to deliver equal amounts of funding to mitigation and adaptation.

<sup>332</sup> National Environment Management Authority, 'Adaptation Fund and GCF programmes,' op cit.

<sup>333</sup> Ibid.

<sup>334</sup> See para. 4.2.5.2, *National Climate Change Response Strategy 2010*, Government of Kenya, 2010.

<sup>335</sup> The REDD Desk, *REDD in Kenya*, available at <http://theredddesk.org/countries/kenya> [Accessed on 28/07/2016].

<sup>336</sup> Ibid.

<sup>337</sup> Ibid; See also Gichu, A. & Chapman, S., *Overview of REDD+ in Kenya*, REDD+ Law Project -Briefing Paper, July 2014. Available at <http://www.4cmr.group.cam.ac.uk/filecab/redd-law-project/20140821%20BP%20Overview%20of%20REDD-%20in%20Kenya.pdf> [Accessed on 28/07/2016].

<sup>338</sup> Climate Change Act, No. 11 of 2016.

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connected purposes. The Act notably establishes the National Climate Change Council to coordinate the country's climate change efforts.<sup>339</sup>

These efforts and initiatives should be supported as they demonstrate Kenya's commitment to climate change mitigation, a positive step towards attaining sustainable development.

### **8.2.7 Sustainable and Inclusive Approaches to Environmental Resources Management**

The now repealed *Forest Act, 2005*<sup>340</sup> was enacted, as an attempt to provide for involvement of local communities living around any forest in the management of those forests.<sup>341</sup> The Act provided for Community Forest Associations, where local communities come together and form an association, through which they can manage forest resources around them and benefit from the sustainable utilization of forest produce.<sup>342</sup> The Forests Act (2005) introduced participatory forest management, through the engagement of local communities, and the promotion of the private sector investment in gazetted forest reserves, accompanied by associated institutional and organisation change, notably the establishment of the Kenya Forest Service (KFS)<sup>343</sup>, and the formation of Community Forest Associations (CFAs).<sup>344</sup>

One of the functions of a forest conservation committee in respect of each forest conservancy area under the Act is, in consultation with the Board, to assist local communities to benefit from royalties and other rights derived from flora or fauna traditionally used or newly discovered by such communities.<sup>345</sup> However, one of the most glaring shortcomings in this provision is the exclusion of communities in such deliberations. This is because, although the Act provided that such a committee will include four persons knowledgeable in forestry matters nominated by forest associations operating in the conservancy area, it is

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<sup>339</sup> Ibid, s. 5.

<sup>340</sup> No. 7 of 2005, Laws of Kenya. The Act has since been repealed by the Forest Conservation and Management Act, No. 34 of 2016.

<sup>341</sup> Part IV, SS. 45-48.

<sup>342</sup> S.2: "forest community" means a group of persons who- a) have a traditional association with forest for purposes of livelihood, culture or religion; b) are registered as an association or other organization engaged in forest conservation.

<sup>343</sup> S.4, No. 7 of 2005.

<sup>344</sup> No. 7 of 2005, S. 45.

<sup>345</sup> Ibid, s. 13(3) (e).



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noteworthy that such associations are optional and an area may not necessarily have such associations.<sup>346</sup>

It is also worth mentioning that the associations, as envisaged in the structure under the Act, only target formally educated people and locks out those who may possess traditional ecological knowledge but not necessarily formal environmental law knowledge.<sup>347</sup> In such an instance, the interests of the affected community may not be fully represented since they may have been locked out. As such, their participation may be limited and only exist as a formality and legal requirement, without necessarily benefitting the communities in question.

The Constitution of Kenya recognises culture as the foundation of the nation and as the cumulative civilization of the Kenyan people and nation.<sup>348</sup> Further, the Constitution obligates the State to, inter alia—promote all forms of national and cultural expression through literature, the arts, traditional celebrations, science, communication, information, mass media, publications, libraries and other cultural heritage; recognise the role of science and indigenous technologies in the development of the nation; and promote the intellectual property rights of the people of Kenya.<sup>349</sup>

The important role of communities in resource management has recently been acknowledged and this is commendable. For instance, the National Land Commission Chairman was recently quoted as saying that resettling traditional forest-dwelling communities in their natural habitats can play an important role in restoring the country's forest cover.<sup>350</sup> He added that such people have the traditional skills needed to help the Government conserve the forests.<sup>351</sup> He also affirmed the importance of a rights based approach to environmental conservation, where he asserted that securing the tenure rights of forest communities is the best way to protect their human rights while securing the forests for the nation.<sup>352</sup> If the Commission adopts such an approach, they are likely to boost chances of succeeding in environmental conservation and

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<sup>346</sup> Ibid, s. 13(4).

<sup>347</sup> S. 45(3) of the Forest Act 2005 ( Repealed) outlines the formal requirements of such an association, before registration.

<sup>348</sup> Article 11(1), Constitution of Kenya 2010.

<sup>349</sup> Article 11(2), Constitution of Kenya 2010.

<sup>350</sup> Kibet L., 'Swazuri reveals plans to recognise forest settlers,' *The Standard*, Thursday, July 28, 2016 (The Standard Group, Nairobi, 2016), p. 2.

<sup>351</sup> Ibid.

<sup>352</sup> Ibid.

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enhancing meaningful and active participation of communities in natural resources and environmental conservation, especially with regard to forests.

It is also arguable that the Act did not specifically spell out how communities are to be involved in decision-making processes. Where CFAs are formed, it is noteworthy that the Act does not have substantive provisions on how such associations can participate in decision-making processes. They are portrayed as recipients of instructions from the KFS so that they can even be deregistered where it deems fit to the Director of KFS to do so.<sup>353</sup> Thus, this Act seems to have adopted both incentives based and protectionist approaches to management, both of which have not had any major success. Even where CFAs have been formed, the same cannot be said to have been very successful due to a number of reasons. Considering that CFAs involve a limited number of people, they may not be said to be representative of the majority and therefore even where they receive benefits, the same may not flow to the rest of population.

Secondly, CFAs are registered by few people who are interested in doing so and the same are not necessarily representatives of the majority of the people. This means, therefore, that even where they make decisions regarding formulation and implementation of forest programmes consistent with the traditional forest user rights of the community concerned, the same cannot be said to be a representative voice of the majority. Community, in this context and as defined in the Act, does not necessarily mean the whole community.

The forest Policy acknowledges that the promulgation of the Constitution brought new requirements for natural resource management such as public participation, community and gender rights, equity in benefit sharing, devolution and the need to achieve 10% forest cover among others.<sup>354</sup> Therefore, the need to enact supporting legislation following the promulgation of the constitution is required to minimize conflicts between industry, communities and governments at both national and county levels over resource management and benefit sharing. In addition, forest governance needs to take into account emerging issues and best practices at global, regional and national level.<sup>355</sup>

With regard to wildlife and biodiversity, it has been observed that many of the regions with abundant and diverse wildlife communities remaining in East

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<sup>353</sup> S. 48, Forest Act 2005 (repealed).

<sup>354</sup> *Ibid*, para. 2.1.1.

<sup>355</sup> *Ibid*, para. 2.1.2.

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Africa are occupied by pastoralists.<sup>356</sup> Further, it has also been documented that recent studies show that the majority of the local people around protected areas have negative feelings about state policies and conservation programmes. The alienation of grazing land for the exclusive use of wildlife and tourists has a very direct impact upon the pastoralist communities, and prompts them to raise questions about African wildlife policy – as if it leads to a ‘people versus animals’ conflict.<sup>357</sup> The local communities continue to incur wildlife-related losses and insecurity rather than benefits, while the government and foreign investors continue to draw large amounts of foreign income from parks through the lucrative tourism industry.<sup>358</sup>

*The National Wildlife Conservation and Management Policy, 2012* (Wildlife Policy 2012) observes that since Kenya is rich in natural resources, including a vast array of wildlife, and due to its species’ richness, endemism and ecosystem diversity, under the Convention on Biological Diversity Kenya is categorized as a mega-diverse country.<sup>359</sup> Accordingly, the Policy affirms the need for different conservation priorities and measures, for each of the ecosystems. This is accredited to a combined set of attributes which include: variability in climate, topography, diversity in ecosystems and habitats ranging from mountain ranges to semi-arid and arid areas to marine and freshwater.<sup>360</sup>

Wildlife is required to contribute directly and indirectly to the local and national economy through revenue generation and wealth creation.<sup>361</sup> Notably, the Policy observes that Kenya’s wildlife is increasingly under threat and consequently opportunities are being lost for it to positively contribute to economic growth, wealth creation and increased employment. Much of this wildlife occurs outside the protected areas on lands owned by communities and other different organizations/persons. Communities consider the presence of wildlife on their land as a burden rather than an opportunity for gaining benefits.<sup>362</sup>

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<sup>356</sup> Okech, R.N., ‘Wildlife-community conflicts in conservation areas in Kenya,’ *African Journals Online*, p. 65. Available at <http://www.ajol.info/index.php/ajcr/Article/download/63311/51194> [Accessed on 22/07/2016].

<sup>357</sup> Ibid.

<sup>358</sup> Ibid, p. 74.

<sup>359</sup> Republic of Kenya: Ministry of Forestry and Wildlife, *National Wildlife Conservation and Management Policy, 2012*, p. 1.

<sup>360</sup> Ibid.

<sup>361</sup> Ibid.

<sup>362</sup> Ibid.

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From the Policy, it is also worth noting the acknowledgement that Kenyan communities have lived amongst, and used, wildlife resources since time immemorial without formal policy and legislation. These communities ensured conservation of the wildlife resource through cultural and social bonds, and traditional practices. Sacred beliefs centred on certain wildlife species ensured that conservation principles became part of their way of life.<sup>363</sup> It has been observed that when colonial governments were established in Africa, they placed the control and management of all wildlife and the lands on which it existed under state ownership. Local communities were, in all except a few cases, forcibly relocated and alienated from the resources they, or their chiefs, formerly had the right to own and control. The argument for this was that they did not have the knowledge, the will, or the training to manage the wildlife in a sustainable way.<sup>364</sup> Communities around these protected areas were seen as the principal threat to wildlife, and the governments, wildlife authorities in particular, focused their attention on barring members of the community from disturbing the areas and the wildlife therein, and this continued even with post-colonial governments.<sup>365</sup>

The *Wildlife Conservation and Management Act, 2013*<sup>366</sup> was enacted, as a result of the Wildlife Policy 2012, to provide for the protection, conservation, sustainable use and management of wildlife in Kenya and for connected purposes.<sup>367</sup> The Act affirms that benefits of wildlife conservation should be derived by the land user in order to offset costs and to ensure the value and management of wildlife do not decline; wildlife conservation and management should be exercised in accordance with the principles of sustainable utilization to meet the benefits of present and future generations; and benefits accruing from wildlife conservation and management should be enjoyed and equitably shared by the people of Kenya.<sup>368</sup>

The functions of the Kenya Wildlife Service, under the Act, include, collecting revenue and charges due to the national government from wildlife and, as appropriate, develop mechanisms for benefit sharing with communities living

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<sup>363</sup> Ibid, p.2.

<sup>364</sup> Songorwa, A.N., et al, 'Community-Based Wildlife Management in Africa: A Critical Assessment of the Literature,' *Natural Resources Journal*, vol. 40, summer, 2000, pp. 603-643 at pp. 603-604.

<sup>365</sup> Ibid, p. 604.

<sup>366</sup> The Wildlife Conservation and Management Act, No. 47 of 2013.

<sup>367</sup> Ibid, Preamble.

<sup>368</sup> Ibid, s.4.

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in wildlife areas, and developing mechanisms for benefit sharing with communities living in wildlife areas.<sup>369</sup> The Act further establishes the County Wildlife Conservation and Compensation Committee whose functions include: overseeing the preparation and implementation of management plans on community and private land under the provisions of this Act; ensuring that benefits derived from the use of wildlife resources are distributed in accordance with the provisions of this Act; and bringing together all relevant stakeholders within the county to actively harness their participation in the planning and implementation of projects and programmes related to the protection, conservation and management of wildlife resources in the county.<sup>370</sup>

With regard to forests, it has been observed that the management regimes of public forests (and arguably even other natural resources in Kenya), whether they are protectionist oriented or incentive-based are important in determining outcomes of conservation and sustainable use.<sup>371</sup> Kenya has historically adopted a protectionist model, where conservation strategies have been dominated by attempts to fence off or reserve areas for nature and exclude people from the reserved areas, and also involved the creation of protected areas (national parks, game reserves and national forest reserves), the exclusion of people as residents, prevention of consumptive use, and minimisation of other forms of human impact.<sup>372</sup> Broadly, this approach viewed development objectives of local communities as being in direct conflict with the objectives of biodiversity conservation.<sup>373</sup>

As far as wildlife biodiversity is concerned, it has been contended that the involvement and support of local communities in wildlife conservation is a prerequisite to effective and long-term conservation of wildlife and wildlands as part of the terrestrial biodiversity.<sup>374</sup> To this extent, it is argued that as a resource, wildlife must be of value to humans and contribute to human development. In other words, it must directly benefit the people who have the option to use the

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<sup>369</sup> Ibid, s.7 (e) (f).

<sup>370</sup> Ibid, s. 19(b) (c) (d).

<sup>371</sup> Guthiga, P.M., 'Understanding Local Communities' Perceptions Of Existing Forest Management Regimes of A Kenyan Rainforest,' *International Journal of Social Forestry (IJSF)*, 2008, Vol. 1, No.2, pp.145-166 at p. 146.

<sup>372</sup> Ibid, p. 146.

<sup>373</sup> Ibid.

<sup>374</sup> Sibanda, B.M.C. & Omwega, A.S., 'Some Reflections on Conservation, Sustainable Development And Equitable Sharing of Benefits From Wildlife in Africa: The Case of Kenya and Zimbabwe,' *South African Journal Of Wildlife Research*, Vol. 26, No. 4, 1996, pp. 175-181 at p 175.

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wildlands for other purposes.<sup>375</sup> Consequently, in spite of any existing controversies between the purely protectionist approach to wildlife management and the conservation approach, it is argued that it is the local communities who are to determine whether wildlife conservation is a priority form of land use.<sup>376</sup>

It has been recommended that involving local communities in sustainable natural resource use and conservation must be encouraged. Arguably, no rural-based education about the use of such resources will succeed if local community needs and opinions are not met and incorporated in conservation practice and policies. If they do not benefit from biodiversity resources, and are not compensated for opportunity costs and wildlife-induced losses, they will not support the conservation of biodiversity.<sup>377</sup> Lastly, it has been suggested that a national land use plan can also help and will put into perspective land use practices that are compatible with the socio-economic needs, natural resource endowment, and ecological and climatic constraints within different regions of the country.<sup>378</sup> There is hope for Kenya after the recently developed Draft National Land Use Policy 2016<sup>379</sup> whose overall goal is to provide legal, administrative, institutional and technological framework for optimal utilization and productivity of land and land related resources in a sustainable and desirable manner at National, County and local level.<sup>380</sup>

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<sup>375</sup> Ibid.

<sup>376</sup> Ibid; see generally Grossman, E. (ed), 'Integrating Land Use Planning & Biodiversity,' (Defenders of Wildlife, Washington, D.C., 2003). Available at [http://www.defenders.org/publications/integrating\\_land\\_use\\_planning\\_and\\_biodiversity.pdf](http://www.defenders.org/publications/integrating_land_use_planning_and_biodiversity.pdf) [Accessed on 27/07/2016]; See also Kiss, A., 'Making Biodiversity Conservation A Land Use Priority,' available at <http://www2.gsu.edu/~wwwcec/special/AgiBookChapter2002.pdf> [Accessed on 27/07/2016]

<sup>377</sup> Okech, R.N., 'Wildlife-community conflicts in conservation areas in Kenya,' *African Journals Online*, op cit at p.78.

<sup>378</sup> Ibid, p. 78; See also generally, Wehrmann, B. (ed), 'Land Use Planning: Concept, Tools and Applications,' (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Eschborn, 2012). Available at <https://www.giz.de/fachexpertise/downloads/Fachexpertise/giz2012-en-land-use-planning-manual.pdf> [Accessed on 27/07/2016]

<sup>379</sup> Developed by the Ministry of Lands and Physical Planning, Kenya, May 2016.

<sup>380</sup> Ibid, para. 1.4. Specifically the policy shall offer a framework of recommendations and principles designed to ensure the maintenance of a land use system that will provide for:

- a) Land-use planning, resource allocation and resource management for sustainable development to promote public good and general welfare;
- b) environmental management and sustainable production initiatives in the utilization of land resources
- c) Coordination and integration of institutional linkages in planning at sectoral and cross-sectoral levels to foster collaboration and decision making among different land users.

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With regard to natural resources and the equitable sharing of the accruing benefits, the International Finance Corporation, a member of the World Bank Group (WBG), argues that Governments face competing priorities when designing policies that determine when, how, and by whom the natural resources will be developed.<sup>381</sup> From a benefit-sharing perspective, such policies need to embrace the interests of current and future generations and the rights, interests, and needs of different levels of government, communities, and other stakeholders.<sup>382</sup> Further, with specific reference to extractives industry, the role of government in establishing a framework to manage and invest revenues derived from oil, gas, and mining projects is crucial to ensure that the sector contributes positively to sustainable development.<sup>383</sup>

Sustainable exploitation, utilisation, management and conservation of the environment and natural resources and equitable sharing of the accruing benefits are key in fighting poverty and consequently, empowering communities for overall national development. Indeed, this is reflected in the *2030 Agenda for Sustainable Development*,<sup>384</sup> which recognises that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global

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- d) Optimum utilization of land resources to meet governance, social-economic, political and cultural obligations of the people of Kenya.
  - e) Anchoring land development initiatives that will respond positively to the market demands.
  - f) Integrated framework for the preparation of a National Spatial Plan and review of various land use plans.
  - g) Mainstreaming of gender and special interest groups in land use planning and management.
  - h) A comprehensive, efficient and affordable computer based land use information management system.
  - i) An appropriate, accountable and democratic institution for land use conflicts resolution.
  - j) Mitigating problems associated with poor land use;

<sup>381</sup> International Finance Corporation, 'The Art and Science of Benefit Sharing in the Natural Resource Sector,' *Discussion Paper*, February 2015, p. 7. Available at [http://www.ifc.org/wps/wcm/connect/8e29cb00475956019385972fbd86d19b/IFC\\_Art+and+Science+of+Benefits+Sharing\\_Final.pdf?MOD=AJPERES&CACHEID=8e29cb00475956019385972fbd86d19b](http://www.ifc.org/wps/wcm/connect/8e29cb00475956019385972fbd86d19b/IFC_Art+and+Science+of+Benefits+Sharing_Final.pdf?MOD=AJPERES&CACHEID=8e29cb00475956019385972fbd86d19b) [Accessed on 13/07/2016].

<sup>382</sup> Ibid.

<sup>383</sup> Ibid, p. 11.

<sup>384</sup> United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, Resolution adopted by the General Assembly on 25 September 2015, A/RES/70/1; See also United Nations General Assembly, "The road to dignity by 2030: ending poverty, transforming all lives and protecting the planet," *Synthesis Report of the Secretary-General on the post-2015 Sustainable development agenda*. A/69/700. para.45.

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challenge and an indispensable requirement for sustainable development. Some of the Agenda's key principles include sustainability and inclusivity.<sup>385</sup>

The existing policies, legal and regulatory frameworks, as highlighted in select statutes, appear to suggest that the sustainable management of resources agenda is one to be driven by the State, especially in terms of decision-making, and not in collaboration with the local community. The Constitution envisages a collaborative approach between communities and the State. Decision making processes still seem to be largely top-down in nature and communities are only afforded opportunities to apply for resource user rights, with little or no consultations regarding management.

*Agenda 21*<sup>386</sup> provides that while managing resources sustainably, an environmental policy that focuses mainly on the conservation and protection of resources must take due account of those who depend on the resources for their livelihoods. Otherwise, it could have an adverse impact both on poverty and on chances for long-term success in resource and environmental conservation.<sup>387</sup>

The overall agenda is to promote conservation and sustainable use of oceans and seas, freshwater resources, as well as forests, mountains and drylands and to protect biodiversity, ecosystems and wildlife while at the same time using these resources to address human needs.<sup>388</sup>

The Constitution of Kenya creates an opportunity where, through devolution, communities are supposed to be empowered by devolving power from the state to local institutions of decision-making as a way of empowering local communities to manage natural resources and environmental matters. There is also a need to put in place a framework that clearly defines the role of various stakeholders. The State should also consult widely when coming up with the methods of benefit sharing especially with regard to the local community.

It is only through mobilizing the efforts of all the relevant stakeholders that the constitutional provisions on the environment and natural resources can effectively be implemented and make it possible to achieve sustainable

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<sup>385</sup> Ibid.

<sup>386</sup> (A/CONF.151/26, vol.II), United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992, Agenda 21.

<sup>387</sup> Ibid, Clause 3.2.

<sup>388</sup> Para. 33, United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, Resolution adopted by the General Assembly on 25 September 2015, A/RES/70/1. Goal 15 thereof also requires Member States to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.



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development. The various sectoral laws and policies must be designed in a way that protects the environment from degradation, and also involves communities through measures that encourage active participation in benefit sharing or decision-making processes, whether through incentives or otherwise.

There is a clear need to nurture the environment for sustainable development in Kenya.

## **9. Natural Resources Exploitation and Sustainable Development**

Easing the pressure on the environment through diversification of livelihood means is essential to facilitate protection, conservation and replenishment of the environment and the resources therein. Africa is well-endowed with natural resource wealth and as a result, there are many exploration and exploitation activities going on all over the continent.<sup>389</sup> Most African countries depend on agriculture for food and exports. Agricultural products from Africa are exported to the global market but fetch relatively low prices since there is little or no value addition done in Africa. Economic talks about African economy observe that Africa's resources have fueled economic growth but most Africans have not benefited.<sup>390</sup>

Governments bear the primary responsibility for equitably managing resources for the benefit of their people. Any act of derogation or violation of this right is greatly condemned under the various international and regional legal instruments on human rights.<sup>391</sup> The resources are first and foremost to be used for improving livelihoods and empowering the people in all aspects of their lives including, political, social and economic. The overall wellbeing of the people must be balanced with that of the environment in the discussion for sustainable use and management of natural resources, for sustainable development.

It has been observed that the view that poverty is a shortage of income ought to be changed to one that perceives poverty as 'unfreedoms' of various sorts: the lack of freedom to achieve even minimally satisfactory living

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<sup>389</sup> Rajaram, A., "Rich Countries, Poor People; Will Africa's Commodity Boom Benefit the Poor", available on <http://blogs.worldbank.org/africacan/rich-countries-poor-people-will-africa-s-commodity-boom-benefit-poor> [Accessed on 7/01/ 2014].

<sup>390</sup> Robb, C.K., Executive Director of Africa Progress Panel "How Africa's resources can Lift Millions out of Poverty." Available at [www.cnn.com/2013/07/25/opinion/africas-natural-resources-millions-overt/](http://www.cnn.com/2013/07/25/opinion/africas-natural-resources-millions-overt/) [Accessed on 15/01/ 2014].

<sup>391</sup> See Article 30, UDHR; Article 5, ICESCR; and Article 21.2, Banjul Charter.

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conditions.<sup>392</sup> Low income can contribute to that, but other factors such as the lack of schooling facilities, absence of health facilities, unavailability of medicines, the suppression of women, hazardous environmental features and lack of jobs do also play a major role. Therefore, poverty can be reduced through addressing all these issues.<sup>393</sup> Addressing these issues requires mobilization of resources by the state. This mobilization depends on a number of factors which include but are not limited to sound institutional and legal frameworks, streamlining the governance system, empowering the citizenry to participate in the governance matters, amongst other measures.

In exercising permanent sovereignty over natural resources, States must as a matter of obligation use the resources for national development and the well-being of the people and ensure conservation and preservation of the same.<sup>394</sup> Indeed, this is echoed under the Constitution of Kenya 2010, Article 69(1), which lay out the state obligations toward environment.

To reduce poverty in Africa and steer the continent to its full potential, value addition model is the best alternative rather than a commodity export model. By this model, Africans would use the resources they have as anchors for regional growth clusters and then ensure that they attract value-addition industries.<sup>395</sup> Locally produced food and other potential income earners natural resources could undergo local value addition and be exported either within African region markets or out of Africa. This would have a positive effect on the economic wellbeing of all persons starting from the grassroots levels. Exporting fully processed goods instead of raw commodities is said to result in a much higher percentage of their value staying in African countries and many more opportunities for families to gain livelihoods and exit poverty.<sup>396</sup>

Even if Africa were to improve on resource utilisation without creating jobs for the people, the revenue from resources would be inadequate to cater for the needs of the people. Thus, there is a need to create jobs for the rapidly

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<sup>392</sup> Green, D., *From Poverty to Power: How active citizens and effective states can change the world*, (2nd ed., 2012), p. IX (Foreword by Amartya Sen), Rugby, UK: Practical Action Publishing and Oxford: Oxfam International, Available at [http://www.oxfamamerica.org/static/media/files/From\\_Poverty\\_to\\_Power\\_2nd\\_Edition.pdf](http://www.oxfamamerica.org/static/media/files/From_Poverty_to_Power_2nd_Edition.pdf) [Accessed on 24/02/2014].

<sup>393</sup> Ibid.

<sup>394</sup> UN Res. 1803/XVII, 1962.

<sup>395</sup> Ngwenya, S., "Africa has to Shed off the Resource Curse Stigma" op. cit.

<sup>396</sup> *Value Added in Africa*, Available at <http://www.ideaonline.ie/content/value-added-africa> [Accessed on 24/02/2014].

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growing population. This would of course import the need to provide good education to equip people with skills and knowledge suitable for the job market. For effective job creation, Africa must also invest in its people through quality education. The money generated from the natural resources should also be invested in the education sector so as to empower the people. Education and job opportunities will empower the poor. It is generally accepted that effective poverty reduction cannot be achieved without the empowerment of the poor.<sup>397</sup>

## **10. Climate Change and Sustainable Development**

The United Nations Framework Convention on Climate Change (UNFCCC)<sup>398</sup> defines climate change as a “*change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods*”.<sup>399</sup> It is noteworthy that while the foregoing definition attributes climate change to human activity in a generalized manner, Kenya’s *Climate Change Act, 2016*<sup>400</sup> defines climate change to mean a change in the climate system which is caused by significant changes in the concentration of greenhouse gases as a consequence of human activities and which is in addition to natural climate change that has been observed during a considerable period.<sup>401</sup>

The *Agenda 2030 on Sustainable Development* calls on countries to take urgent action to combat climate change and its impacts.<sup>402</sup> It has been argued that some of the most adverse effects of climate change will be in developing countries, where populations are most vulnerable and least likely to easily adapt to climate change, and that climate change will affect the potential for development in these countries.<sup>403</sup> This vulnerability has been attributed to their

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<sup>397</sup> United Nations High Commissioner for Human Rights, *Principles And Guidelines For A Human Rights Approach To Poverty Reduction Strategies*, HR/PUB/06/12, p. 9.

<sup>398</sup> United Nations Framework Convention on Climate Change (United Nations, 1992), Article 1(2).

<sup>399</sup> UN General Assembly, *United Nations Framework Convention on Climate Change: resolution / adopted by the General Assembly*, 20 January 1994, 1771 UNTS 107; S. Treaty Doc No. 102-38; U.N. Doc. A/AC.237/18 (Part II)/Add.1; 31 ILM 849 (1992).

<sup>400</sup> No. 11 of 2016, Laws of Kenya.

<sup>401</sup> S. 2, No. 11 of 2016, Laws of Kenya.

<sup>402</sup> United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, Goal 13.

<sup>403</sup> Beg, N., ‘Linkages between climate change and sustainable development,’ *Climate Policy*, Vol. 2, 2002, pp.129–144 at p. 129.

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reliance on agriculture, their lower tolerance to coastal and water resource changes, and lower financial, technical, and institutional capacity to adapt.<sup>404</sup>

While the foregoing assertion may bear some truth in it, it is also true that climate change has had a global impact to a point where the international community has already come together to put in place measures aimed at addressing the scourge.<sup>405</sup> Climate change has been associated with direct economic impacts, crop failure due to climate change which could also increase unemployment, destabilised food security, further increasing competition for scarce resources and increase social inequity, and in addition, risks associated with sea-level rise in some of the world's poorest regions, such as displacement.<sup>406</sup> As such, climate change is relevant to priority development objectives such as combating poverty, food security, access to basic services such as clean water, sanitary living conditions and energy, and education.<sup>407</sup>

### **11. Environmental Security and Sustainable Development**

The importance of the environment cannot be overstated since it ensures survival of all forms of life. The enjoyment of the right to life depends on a clean and healthy environment.<sup>408</sup> A secure environment makes possible the exercise of the right to life certain by ensuring that any threats to life are neutralized. Although there have been widespread calls for a more secure environment, backed with conventions and global agreements on the present problem of an environment that is under threat, the uptake of actions to curb the same has been dismal and insufficient, to say the least. State and governmental efforts have not been satisfactory to effect the agreed upon principles and mechanisms.

Environmental security is defined as environmental viability for life support, with three sub-elements; preventing or repairing military damage to the environment, preventing or responding to environmentally caused conflicts, and

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<sup>404</sup> Ibid, p.133.

<sup>405</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Six, for the full discussion.

<sup>406</sup> Beg, N., 'Linkages between climate change and sustainable development,' *Climate Policy*, Vol. 2, 2002, p. 133.

<sup>407</sup> Ibid, p. 134.

<sup>408</sup> See generally, Stock, A., *The Right to a Healthy Environment: How to use international legal mechanism for the protection of our environment and our health – A Manual*, (Women in Europe for a Common Future, Utrecht/Munich, September 2007).

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protecting the environment due to its inherent moral value.<sup>409</sup> It has also been defined as the process of peacefully reducing human vulnerability to human-induced environmental degradation by addressing the root causes of environmental degradation and human insecurity.<sup>410</sup>

Competition for scarce resources may lead to a ‘survival of the fittest’ situation.<sup>411</sup> In such circumstances, environmental degradation poses a higher potential for conflict, as every group fights for their survival.<sup>412</sup> Even where resources are abundant, conflicts can arise when one group controls a disproportionate portion of the same (“Resource capture”). Resource capture occurs when the supply of a resource decreases due to either depletion or degradation and/or demand increases (due to population and/or economic growth).<sup>413</sup> This encourages the more powerful groups in a society to exercise more control and even ownership of the scarce resource, thereby enhancing their wealth and power.<sup>414</sup> For instance, land has been an emotive issue in Kenya as it is in the hands of a few people in the country, and this has often led to tribal clashes.<sup>415</sup>

Environmental security is not only concerned with sustainable management of natural resources for the sake of achieving sustainable development but also incorporates the moralistic duty to conserve the environment for the sake of the other forms of life namely animals and plants. The quest for sustainable development should not only be informed by the human desire to secure their future but should also include the duty to safeguard the environment for its own sake.

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<sup>409</sup> Ayeni, A.O. & Olorunfemi, F.B., ‘Reflections on Environmental Security, Indigenous Knowledge and the Implications for Sustainable Development in Nigeria,’ *Jorind*, Vol. 12, No. 1, June, 2014, pp. 46-57 at p. 51.

<sup>410</sup> Rita, F., “The Environmental Security Debate and Its Significance for Climate Change,” *The International Spectator: Italian Journal of International Affairs*, Vol. 43, Issue 3, 2008, pp.51-65 at p. 56.

<sup>411</sup> See generally, “Chapter 5: Survival at Stake: Violent Land Conflict in Africa,” *Small Arms Survey 2013*, available at <http://www.smallarmssurvey.org/fileadmin/docs/A-Yearbook/2013/en/Small-Arms-Survey-2013-Chapter-5-EN.pdf> [Accessed on 12/10/2015].

<sup>412</sup> See Bowman, K., *et al*, “Chapter 1: Environment for Development,” (United Nations), available at [http://www.unep.org/geo/geo4/report/01\\_Environment\\_for\\_Development.pdf](http://www.unep.org/geo/geo4/report/01_Environment_for_Development.pdf) [Accessed on 12/10/2015].

<sup>413</sup> Khagram, S., *et al*, “From the Environment and Human Security to Sustainable Security and Development,” *Journal of Human Development*, Vol. 4, No. 2, July 2003, pp. 289-313, p. 295.

<sup>414</sup> *Ibid*.

<sup>415</sup> See the *Report of the Judicial Commission Appointed to Inquire into Tribal Clashes in Kenya*, (the 'Akiwumi Commission'), (Government Printer, Nairobi, 1999).

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It is imperative that all the relevant stakeholders join hands in their efforts to conserve and protect the environment for a better, healthy and secure environment that will guarantee better lives for the human race, animals and plants. Achieving environmental security in Kenya is possible. It is an ideal that is attainable, for the sake of the environment and the people of Kenya.<sup>416</sup>

## **12. Food Security and Environmental Sustainability in Kenya**

Food security has been described as a multifaceted sustainable development topic, linked to health through malnutrition, but also to sustainable economic development, environment, and trade.<sup>417</sup> It is noteworthy that small-scale farmers dominate the agricultural sector in Kenya and derive their livelihoods from agriculture which is mainly reliant on rainfall. These farmers, it has been noted, face the challenges of land degradation, poor soil fertility management, and continuous cropping.<sup>418</sup> The agricultural sector in Kenya is said to be highly exposed to climate change and climate variability, as farming activities directly depend on climatic conditions.<sup>419</sup> This has adverse effects on both food security and environmental sustainability in the country.

A population that is food insecure and poorly equipped concerning agriculture production is desperate to survive and this is often at the expense of environmental sustainability since they engage in unsustainable agricultural practices. It is noteworthy that unsustainable agricultural practices as well as unsustainable economic activities such as charcoal burning, timber harvesting or logging are likely to endanger the environment. Unless the food insecurity problem is adequately addressed, any efforts to achieve environmental protection and sustainability in the country will be futile.<sup>420</sup>

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<sup>416</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Seven, for the full discussion.

<sup>417</sup> World Health Organisation, 'Trade, foreign policy, diplomacy and health', *Food Security*, available at <http://www.who.int/trade/glossary/story028/en/> [Accessed on 17/07/2014].

<sup>418</sup> United Nations Economic Commission for Africa, 'An Assessment of Agricultural Sector Policies and Climate Change in Kenya: Nexus between Climate Change Related Policies, Research and Practice: Final Report' December, 2013, p.1. Available at [http://www.climdevafrica.org/sites/default/files/DocumentAttachments/ACPC\\_KIPPRA\\_Kenya\\_Policy\\_Research\\_Practice%20%26%20Climate%20Change\\_12.12.2013\\_Final.pdf](http://www.climdevafrica.org/sites/default/files/DocumentAttachments/ACPC_KIPPRA_Kenya_Policy_Research_Practice%20%26%20Climate%20Change_12.12.2013_Final.pdf) [Accessed on 17/07/2014].

<sup>419</sup> Ibid, p. 2.

<sup>420</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Eight, for the full discussion on food security.

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The human right to adequate food is of crucial importance for the enjoyment of all rights.<sup>421</sup> The right to adequate food is indivisibly linked to the inherent dignity of the human person and is indispensable for the fulfillment of other human rights enshrined in the International Bill of Human Rights.<sup>422</sup> It is also inseparable from social justice, requiring the adoption of appropriate economic, environmental and social policies, at both the national and international levels, oriented to the eradication of poverty and the fulfillment of all human rights for all.<sup>423</sup>

Alleviation of hunger and poverty is therefore, in the long-run interest of the human development.<sup>424</sup>

### **13. Promoting the Right to Clean and Healthy Environment for Sustainable Development**

#### **a. Defining the Right to Clean and Healthy Environment**

It has been argued that the problem in declaring a *right to a clean and healthy environment* (emphasis added) as is found in various documents is that there is yet no clear definition of this right nor is its content clearly demarcated.<sup>425</sup> Pertinent questions abound: what is the measure for a clean and healthy environment? At what point can one say this right has been violated - is it after a single oil spill, or continuously with or without an immediate clean up or after a refusal to return the contaminated environment to status quo ante?<sup>426</sup> For instance, in the Kenyan case of *Pastor James Jessie Gitahi & 202 others v Attorney General*,<sup>427</sup> the Court observed that "...prevention of noise and vibration pollution is now recognised as a component of a clean and healthy environment. Noise pollution covers sound which can result in hearing impairment while vibrations pollution covers vibration transmitted to the human body through solid structures. Both excessive noise and vibration can cause injury to the body hence the need to regulate the level of noise through the

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<sup>421</sup> UN Committee on Economic, Social and Cultural Rights.

<sup>422</sup> Ibid.

<sup>423</sup> General Comment No. 12: *The Right to Adequate Food*, op. cit.

<sup>424</sup> Ananda, D., Chapter - II, 'Food Security: the Concept and the Issue', op. cit. p. 2.

<sup>425</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Nine, for the full discussion.

<sup>426</sup> Okpara, C. I., 'Right to a Clean and Healthy Environment: The Panacea to the Niger Delta Struggle,' *Journal of Politics and Law*, Vol. 5, No. 1; March 2012, pp. 3-8, p.6.

<sup>427</sup> [2013] eKLR, Petition No. 683 of 2009.

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Regulations.<sup>428</sup> The Court also stated that “Part II of the *Regulations*<sup>429</sup> has a general prohibition against, “loud, unreasonable, unnecessary or unusual noise which annoys, disturbs, injures or endangers the comfort, repose, health or safety of others and the environment.” In determining whether the noise is loud several factors are considered including the time of the day, the proximity to a residential neighbourhood, whether the noise is recurrent intermittent or constant, the level or intensity of the noise, whether the noise has been enhanced by any electronic or mechanical means or whether the noise can be controlled without effort or expense to the person making the noise. According to the Court, a violation of the general prohibition is an offence and attracts a penalty under the Act and the Regulations.”

The right to a clean environment openly became an international concern first in 1968 when the UN General Assembly passed a resolution identifying the relationship between the quality of the environment and the enjoyment of basic rights.<sup>430</sup> It was not until the Stockholm conference in 1972 that the right to a healthy environment was explicitly recognized in an international environmental law document (Stockholm Declaration, 1972)<sup>431</sup>. It declared 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, and he bears a solemn responsibility to protect and improve the environment for present and future generations* (Emphasis added).<sup>432</sup> It is noteworthy that the Declaration did not just recognise the right to a good quality environment but also placed a responsibility on human beings to protect and improve the environment for present and future generations. This position of rights and responsibility towards the environment is now widely accepted and it goes to the core of the sustainable development discourse.<sup>433</sup>

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<sup>428</sup> Para. 28.

<sup>429</sup> Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulation, 2009, Legal Notice No. 61 of 2009.

<sup>430</sup> United Nations General Assembly, *Problems of the Human Environment*, UNGA Res 2398(XXII) 3 December 1968.

<sup>431</sup> Declaration of the United Nations Conference on the Human Environment Stockholm, 16 June 1972, UN Doc.A/CONF.48/14/Rev.1.

<sup>432</sup> *Ibid*, Principle 1.

<sup>433</sup> For instance, see Article 69, Constitution of Kenya, 2010 (Government Printer, Nairobi).



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### b. Scope of the Right to Clean and Healthy Environment

The right to a clean and healthy environment is so interwoven with the realisation and enjoyment of other fundamental rights that any attempt to classify it as an inferior right sabotages the realisation of all the other basic rights, including life, health, livelihood and well-being, amongst others.<sup>434</sup> This right advocates for a healthy human habitat, including clean water, air and soil that are free from toxins or hazards that threaten human health.<sup>435</sup>

It is no longer in dispute, at least in Kenya, that there exists a human right to a clean and healthy environment recognised even by the Constitution. Ensuring full enjoyment of a clean and healthy environment, through effective environmental management, will provide multiple benefits to society and the economy.<sup>436</sup> This calls for a holistic, comprehensive and integrated approach to health and environment to protect both the environment and public health.<sup>437</sup>

The environment should be accorded some right, independent of the human beings. Indeed, the Constitution of Kenya elevates the environment as worthy of protection by stating in the preamble that the People of Kenya are respectful of the environment, which is their heritage, and are determined to sustain it for the benefit of future generations. The constitutional recognition of this position in Kenya should give the law makers, courts and other stakeholders an incentive and clear authority to take strong action to protect the environment.

The right to a clean and healthy environment can be equated to the right to life. This is the bold declaration that must be made and captured in our legal framework so as to make it a reality.

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<sup>434</sup> See generally Lador, Y., 'The challenges of human environmental rights,' in *Human Rights and the Environment: Proceedings of a Geneva Environment Network roundtable*, (United Nations Environment Programme for the Geneva Environment Network, 2004).

<sup>435</sup> Okpara, C. I., 'Right to a Clean and Healthy Environment: The Panacea to the Niger Delta Struggle,' *op cit*, p. 5.

<sup>436</sup> United Nations Environmental Programme, "Human Health and the Environment," *UNEP Post 2015 Note No. 3*, available at <http://www.unep.org/roap/Portals/96/UNEP-Post-2015-Note-3.pdf> [Accessed on 2/09/2015].

<sup>437</sup> Narain, J.P., "The challenge of health & environment: Profiling risks & strategic priorities for now & the future," *Indian Journal of Medical Research*, Vol. 136, No.2, August, 2012, pp. 185–191 at p. 186.

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### 14. Environment, Trade and Sustainable Development

The United Nations observes that the global understanding of development has changed over the years, and countries now have agreed that sustainable development—development that promotes prosperity and economic opportunity, greater social well-being, and protection of the environment—offers the best path forward for improving the lives of people everywhere.<sup>438</sup> Much of the global environmental damage has been attributed to the increased scale of global economic activity, where international trade constitutes a growing portion of global economic activity, making it an increasingly important driver of environmental change.<sup>439</sup> This is justified on the fact that, at the most basic level, all economic activity is based on the environment. Natural resources such as metals and minerals, soil, forests, and fisheries are basic inputs to production of any goods, and also provide the energy needed to process them.<sup>440</sup>

The Report of the World Commission on Environment and Development, *Our Common Future*, asserts that economic growth always brings risk of environmental damage, as it puts increased pressure on environmental resources.<sup>441</sup> Thus, policy makers guided by the concept of sustainable development should necessarily work to assure that growing economies remain firmly attached to their ecological roots and that these roots are protected and nurtured so that they may support growth over the long term.<sup>442</sup> This is due to the fact that environmental protection is inherent in the concept of sustainable development, as is a focus on the sources of environmental problems rather than the symptoms.<sup>443</sup>

Trade is considered as one of the driving forces of economic development for all countries, usually aimed at development and the eradication

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<sup>438</sup> United Nations, 'What We Do: Promote Sustainable Development,' available at <http://www.un.org/en/s.s/what-we-do/promote-sustainable-development/index.html> [ Accessed on 4/09/2016].

<sup>439</sup> International Institute for Sustainable Development & United Nations Environment Programme, *Trade and Green Economy: A Handbook* (International Institute for Sustainable Development, Geneva, 2014), p.3. Available at <http://www.unep.org/roe/Portals/139/documents/trade-green-economy-handbook-third-edition-en.pdf> [ Accessed on 4/09/2016].

<sup>440</sup> Ibid.

<sup>441</sup> Report of the World Commission on Environment and Development, *Our Common Future*, op cit., para. 50.

<sup>442</sup> Ibid, para. 50.

<sup>443</sup> Ibid, para. 50.

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of poverty.<sup>444</sup> On the one hand, environmental law, both national and international, and environmental policies—such as promotion of renewable energy, environmental taxation and conservation measures—help define how countries will structure their economic activities.<sup>445</sup> On the other hand, trade law affects the way in which countries design their laws and policies in areas—such as subsidies, technical regulations, investment policy and taxes—that are integral to environmental policy.<sup>446</sup>

It has been argued that the main link between trade and sustainable development is the use of non-renewable raw materials to earn foreign exchange.<sup>447</sup> This, it has been suggested, is a result of a scenario where the dependence of the developed market economies on other mineral imports from the developing countries has also grown, and non-renewable resources like fuels and minerals, as well as manufactured goods, are now far more important than tropical products and other agricultural materials in the flow of primary products from developing to industrial countries.<sup>448</sup>

This has been such a serious problem which has continually affected third world countries that the Agenda 2030 for Sustainable Development aims at ensuring that there is significant increase in the exports of developing countries, in particular with a view to doubling the least developed countries' share of

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<sup>444</sup> 'The Link between Trade and Development: What Role for the EU Trade Policy?' AIF Conference, Christiansborg, 12 September 2000; See also Preamble, World Trade Organization. "Marrakesh Agreement Establishing the World Trade Organization. Annex 1A: Multilateral Agreements on Trade in Goods-Agreement on Trade-Related Investment Measures", The Results of the Uruguay Round of Multilateral Trade Negotiations: The Legal Texts (World Trade Organization, Geneva, 1995), pp. 163-167.

<sup>445</sup> International Institute for Sustainable Development & United Nations Environment Programme, *Trade and Green Economy: A Handbook*, op cit, pp. 3-4.

<sup>446</sup> Ibid, pp. 3-4.

<sup>447</sup> Report of the World Commission on Environment and Development, *Our Common Future*, op cit., para. 41. However, this is not to say that it is the only link. There are other links between trade and sustainable development; if protectionism raises barriers against manufactured exports, for example, developing nations have less scope for diversifying away from traditional commodities. And unsustainable development may arise not only from overuse of certain commodities but from manufactured goods that are potentially polluting. The Commission also observed that the increase in protectionism in industrial countries stifles export growth and prevents diversification from traditional exports. Consequently, if developing countries are to reconcile a need for rapid export growth with a need to conserve the resource base, it is imperative that they enjoy access to industrial country markets for non-traditional exports where they enjoy a comparative advantage. (para. 51).

<sup>448</sup> Ibid, para. 40.

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global exports by 2020.<sup>449</sup> The Agenda 2030 also affirms that international trade is an engine for inclusive economic growth and poverty reduction, and contributes to the promotion of sustainable development.<sup>450</sup> As such, it seeks to continue to promote a universal, rules-based, open, transparent, predictable, inclusive, non-discriminatory and equitable multilateral trading system under the World Trade Organization, as well as meaningful trade liberalisation. It also calls upon all members of the World Trade Organization to redouble their efforts to promptly conclude the negotiations on the Doha Development Agenda.<sup>451</sup>

It has been suggested that equitable international trade can enable countries to achieve food security, generate decent employment opportunities for the poor, promote technology transfer<sup>452</sup>, ensure national economic security and support infrastructure development, not only for moving goods to and from ports, but also for basic services such as health, education, water, sanitation and energy.<sup>453</sup> As such, it is suggested that equitable trade may be more effectively harnessed in delivering sustainable development when integrated into the SDG framework as an SDG enabler, where it would serve as a promoter for potential goals such as poverty eradication, job creation, universal healthcare and education, and a healthy environment.<sup>454</sup>

It has also been acknowledged that trade can have negative, as well as positive, impacts on economic, environmental, and social systems. Economic

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<sup>449</sup> United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, op cit., para. 17.11.

<sup>450</sup> Ibid, para. 68. This is a restatement of para. 281 of the Rio+20 Conference outcome document (The Future We Want) which reaffirmed that international trade is an engine for development and sustained economic growth, and also reaffirmed the critical role that a universal, rules-based, open, non-discriminatory and equitable multilateral trading system, as well as meaningful trade liberalisation, can play in stimulating economic growth and development worldwide, thereby benefiting all countries at all stages of development as they advance towards sustainable development. In this context, the participants in the conference expressed their focus on achieving progress in addressing a set of important issues, such as, inter alia, trade-distorting subsidies and trade in environmental goods and services.

<sup>451</sup> Ibid, para. 68.

<sup>452</sup> Article 7 of the TRIPS states that: “The protection and enforcement of intellectual property should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”

<sup>453</sup> Galmés, G.V., ‘Trade as an enabler of sustainable development and poverty eradication,’ in United Nations, *The Road from Rio+20: Towards Sustainable Development Goals*, Issue 4, September 2014, p. 10. UNCTAD/DITC/TED/2014/1 Available at [http://unctad.org/en/PublicationsLibrary/ditcted2014d1\\_en.pdf](http://unctad.org/en/PublicationsLibrary/ditcted2014d1_en.pdf) [Accessed on 05/09/2016].

<sup>454</sup> Ibid, p.10.

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activities supporting rapidly expanded trade can result in serious environmental degradation when complementary environmental policies are not in place; pollution of air, water, and soil, and unrestrained natural resource exploitation causing desertification, deforestation, sea level rise and fisheries depletion may grow to levels that jeopardize sustainable development efforts; and unmanaged, trade liberalisation can also have negative social impacts including brain-drain and cultural erosion.<sup>455</sup>

Linking development and environment is the central idea behind sustainable development. In practice, this implies opening environmental debates to the development dimension and vice versa, and seeking ways to better integrate them.<sup>456</sup> The relationship between trade and sustainable development is manifested in the impact of trade on the environment and the effect of environmental policies on international trade. The impact of trade on the environment is indirect, mediated by its effects on consumption and production, rigour and suitability of environmental policy.<sup>457</sup> The impact of environment policies on trade depends on the amount and frequency of the transaction, conditioned by the degree of trade liberalisation.<sup>458</sup>

Some of the positive impacts of trade on the environment include the facilitation of international transfer of 'green' technologies, convergence of environmental standards of products and processes to the highest levels in the world, encouraging the development of organic products markets, elimination of subsidies and distorted prices in closed economies including the alignment of world prices, encouragement of international cooperation regarding the environmental protection, amongst others.<sup>459</sup>

The World Commission on Environment and Development recommended that in order to achieve sustainable development, changes are required in the attitudes and procedures of both public and private-sector enterprises. Moreover, environmental regulation must move beyond the usual menu of safety regulations, zoning laws, and pollution control enactments; environmental objectives must be built into taxation, prior approval procedures

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<sup>455</sup> Ibid, p.10.

<sup>456</sup> The World Trade Organization and Sustainable Development: An Independent Assessment. A Report by the International Institute for Sustainable Development, 1996.

<sup>457</sup> Timbur, M. & Pralea, S., 'International Trade – Environment' Relationship in the Context of Sustainable Development,' CES Working Papers.

<sup>458</sup> Ibid.

<sup>459</sup> Ibid.

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for investment and technology choice, foreign trade incentives, and all components of development policy.<sup>460</sup>

Trade is now considered one of the tools to implement sustainable development. There is, thus, the move towards integration of environmental and poverty alleviation goals into macro-economic policies, including trade policies.<sup>461</sup> Environment, trade and development are clearly linked. An integrated approach that fully incorporates environmental concerns, fair trade and sustainable development is desirable.<sup>462</sup>

### **15. Indigenous Knowledge and Sustainable Development**

The CBD may be the only international treaty that specifically acknowledges the role of traditional knowledge, innovations, and practices in biodiversity conservation and sustainable development, as well as the need to guarantee their protection, whether through intellectual property rights (IPRs) or other means.<sup>463</sup>

The resilience of indigenous peoples and local communities, as sustained by their cultural systems which have adapted to local ecological niches over long timeframes, and the detailed and broad knowledge they have of adaptation, is

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<sup>460</sup> Report of the World Commission on Environment and Development, *Our Common Future*, op cit., chapter 2, para. 79.

<sup>461</sup> 'Enhancing Capacity Building for Environment, Trade and Sustainable Development,' Draft Working Paper. *Capacity Building Meeting on Environment, Trade and Sustainable Development for the Latin American and Caribbean Region, Mexico City, Mexico, 27<sup>th</sup> -28<sup>th</sup> March 2003*.

<sup>462</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Ten, for the full discussion.

<sup>463</sup> Dutfield, G., 'TRIPS-Related Aspects of Traditional Knowledge,' *Case Western Reserve Journal of International Law*, Vol. 33, Iss. 2, 2001, pp. 233-275 at pp. 261-261. The 1992 *Convention on Biological Diversity*, [1993] ATS 32 / 1760 UNTS 79 / 31 ILM 818 (1992). under Article 8 (j), dealing with traditional knowledge, provides that each contracting party shall, as far as possible and appropriate: "Subject to national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices." Further, Article 10(c) of the UN Convention on Biological Diversity (CBD) provides that each Contracting Party shall, as far as possible and as appropriate protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.

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affected negatively by the loss of land, ecosystem capacity, and alienation of culturally significant places, migration and losses in livelihoods.<sup>464</sup> The element of traditional knowledge includes moral and ethical statements about the environment and about the relationships between humans, animals, and the environment; the “right way” to do things.<sup>465</sup>

It has correctly been observed that ecological knowledge does not function in isolation but it is, instead, embedded in institutions and local social norms.<sup>466</sup> Further, the structure and dynamics of institutions are critical for implementation of management practices based on ecological understanding in any society.<sup>467</sup> The coordination of appropriate resource use practices is often entrusted with traditional leaders.<sup>468</sup>

It has been asserted that while local people possess a great store of knowledge which they can draw upon to manage their environments, often with great success, such knowledge should not be seen as an unchanging set of rules for conduct.<sup>469</sup> Indigenous knowledge-whether about farming or settling disputes, does not provide a set formula for community decision-making. It is simply a repertoire of ideas and actions from which individuals and communities faced with specific problems can draw, depending on their own level of knowledge, their preferences, and their ability and motivation to act.<sup>470</sup>

Indigenous or traditional knowledge (TK) is used at the local level by communities as the basis for making decisions pertaining to food security, human and animal health, education, natural resource management and other

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<sup>464</sup> Crawhall, N., ‘Indigenous knowledge in adaptation: conflict prevention and resilience-building,’ *Conflict-sensitive Adaptation: Use Human Rights to Build Social and Environmental Resilience, Brief 10*. (Indigenous Peoples of Africa Co-ordinating Committee and IUCN Commission on Environmental, Economic and Social Policy, 2014), p. 2. Available at [http://cmsdata.iucn.org/downloads/tecs\\_csa\\_10\\_indigenous\\_knowledge\\_in\\_adaptation\\_crawhall.pdf](http://cmsdata.iucn.org/downloads/tecs_csa_10_indigenous_knowledge_in_adaptation_crawhall.pdf) [Accessed on 10/04/2016].

<sup>465</sup> Mackenzie Valley Environmental Impact Review Board, *Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment*, July 2005, p. 6. Available at [http://www.reviewboard.ca/upload/ref\\_library/1247177561\\_MVReviewBoard\\_Traditional\\_Knowledge\\_Guidelines.pdf](http://www.reviewboard.ca/upload/ref_library/1247177561_MVReviewBoard_Traditional_Knowledge_Guidelines.pdf) [Accessed on 10/04/2016].

<sup>466</sup> Berkes, F., et. al., ‘Rediscovery of Traditional Ecological Knowledge as Adaptive Management,’ op cit. p. 1258.

<sup>467</sup> Ibid, p. 1258.

<sup>468</sup> Ibid, p. 1258.

<sup>469</sup> Castro, A.P. & Ettenger, K., ‘Indigenous Knowledge and Conflict Management: Exploring Local Perspectives and Mechanisms for Dealing with Community Forestry Disputes,’ op cit.

<sup>470</sup> Ibid.

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vital activities.<sup>471</sup> Exploring the community's knowledge and knowledge of people dealing with agriculture, is deemed crucial to determine their norms, values, and belief in regards to their activities, particularly in the area of water and land management.<sup>472</sup> The way how people develop such knowledge by understanding their environment through observation and experiences determine the specific group of people's knowledge.

All knowledge including traditional knowledge, traditional ecological knowledge and indigenous knowledge should be utilised in a bid to address environmental problems in Kenya. The sustainable development agenda calls for an integrated approach to natural resources governance and management to ensure that all groups and stakeholders are brought on board.

## **16. Attaining Gender Equity for Sustainable Development**

The role of gender in the national development discourse and particularly sustainable development in Kenya is pertinent. The current Constitution of Kenya 2010 places great emphasis on the equality of both gender and their participation in the country's development agenda.<sup>473</sup> However, gender equity is an ideal that is yet to be fully realized owing to various factors that are discussed

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<sup>471</sup> Gorjestani, N., 'Indigenous Knowledge for Development: Opportunities and Challenges,' in Twarog, S. & Kapoor, P. (eds), 'Protecting and Promoting Traditional Knowledge: Systems, National Experiences and International Dimensions,' (United Nations Conference on Trade and Development, 2004), UNCTAD/DITC/TED/10, pp. 265-272 at p. 265. Available at [http://unctad.org/en/docs/ditcted10\\_en.pdf](http://unctad.org/en/docs/ditcted10_en.pdf) [Accessed on 10/04/2016].

<sup>472</sup> Retnowati, A., et al, 'Environmental Ethics in Local Knowledge Responding to Climate Change: An Understanding of Seasonal Traditional Calendar *Pranoto Mongso* and Its Phenology in Karst Area of Gunung Kidul, Yogyakarta, Indonesia,' *Procedia Environmental Sciences*, Vol. 20, 2014, pp. 785 – 794 at p. 787.

<sup>473</sup> Article 1 of the Constitution emphasizes that all sovereign power belongs to the people while Article 10 sets out democracy and participation of the people and inclusiveness as some of the national values and principles of governance in Kenya; Article 27 prohibits either the State or any person from discriminating against any person on any of these grounds including: race, sex, pregnancy, marital status, health status, ethnic or social origin, colour, age, disability, religion, conscience, belief, culture, dress, language or birth; Article 59 thereof establishes the Kenya National Human Rights and Equality Commission whose functions include *inter alia* promoting gender equality and equity generally and to coordinate and facilitate gender mainstreaming in national development. Article 69(2) also obligates every person to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources. Further, Article 175 (c) provides that one of the principles of principles of devolved government is that no more than two-thirds of the members of representative bodies in each county government should be of the same gender; See also Article 197.



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in this chapter. The author herein examines the legal and institutional framework on gender equity and human rights with a view to making a case for the practical empowerment of both gender for national development.<sup>474</sup>

Efforts to introduce gender-sensitive approaches to national development have not been quite successful because even as legislative measures are put in place, they fail to address the underlying norms and customs that define gender relations and power dynamics in the society. The power imbalance that defines gender relations influences women's access to and control over resources, their visibility and participation in social and political affairs, and their ability to realize their fundamental human rights.<sup>475</sup>

The Constitution envisions a situation where women and men participate equally and competitively in national development. It is important to note that the national values and principles of governance as envisaged in the current Constitution of Kenya bind all State organs, State officers, public officers and all persons whenever any of them—applies or interprets the Constitution; enacts, applies or interprets any law; or makes or implements public policy decisions.<sup>476</sup> The most significant of these values and principles are participation of the people, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalised.<sup>477</sup> Indeed, some of these are captured in the Preamble to the Constitution which provides that one of the pillars of the current Constitution is the recognition of the aspirations of all Kenyans for a government based on the essential values of human rights, equality, freedom, democracy, social justice and the rule of law.

Gender equality is seen as a shared vision of social justice and human rights and one that requires concerted efforts from all to achieve.<sup>478</sup> The effect of this is that the foregoing values and principles ought to inform any development deliberations and move towards achievement of gender equality in Kenya.

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<sup>474</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Twelve, for the full discussion.

<sup>475</sup> Strickland, R. & Duvvury, N., “Gender Equity and Peacebuilding,” *From Rhetoric to Reality: Finding the Way*, International Center for Research on Women Discussion Paper, 2003. p. 5. Prepared for the Gender Equity and Peacebuilding Workshop with a grant from the International Development Research Centre (IDRC), Ottawa, Canada. Available at <http://www.icrw.org/files/publications/Gender-Equity-and-Peacebuilding-From-Rhetoric-to-Reality.pdf> [Accessed on 16/05/2015].

<sup>476</sup> *Ibid*, Article 10 (1).

<sup>477</sup> *Ibid*, Article 10(2) (b) (c).

<sup>478</sup> See generally, *Beijing Declaration and Plat form for Action Beijing+5 Political Declaration and Outcome*, United Nations 1995.

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It has been observed that Gender equality, centered in human rights, is both a development goal on its own and a vital tool to accelerating sustainable development and unless women and girls are able to fully realize their rights in all spheres of life, an all-inclusive human development will not be advanced.<sup>479</sup>

The social dimension of sustainable development is a neglected area in such analyses and often, this places women at a disadvantage, since the social dimension affects gender-based rights and social position, which are key factors in determining women's access to resources, decision-making and the like.<sup>480</sup> For instance, gender equality is considered a critical element in achieving decent work for all women and men, in order to effect social and institutional change that leads to sustainable development with equity and growth.<sup>481</sup> As such, *gender equity, which goes beyond equality*, is necessary (emphasis added).

It is noteworthy that the term 'development' is perceived differently by different people and countries and thus defined differently. That is probably the reason why there exists the 'developed' and 'developing' countries classification. There is therefore no single agreed definition of the concept of development. However, development has various angles to it and may be classified as economic development, human development, *inter alia*. However, development is not an exclusively economic phenomenon but encompasses financial as well as reorganization and reorientation of entire economic and social systems. It has been argued that in addition to improvements in incomes and output, it typically involves radical changes in institutional, social, and administrative structures as well as in popular attitudes and, in many cases, even customs and beliefs.<sup>482</sup>

The goal of gender equity is considered to be moving beyond equality of opportunity by requiring transformative change with the recognition that women and men have different needs, preferences, and interests and that equality of outcomes may necessitate different treatment of men and women.<sup>483</sup> An equity approach implies that all development policies and interventions need to be

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<sup>479</sup> UNDP, *Gender equality*, available at <http://www.africa.undp.org/content/undp/en/home/ourwork/gender-equality/overview.html> [Accessed on 02/04/2015].

<sup>480</sup> *Ibid.*

<sup>481</sup> International Labour Organisation, *Gender and Development*, available at <http://www.ilo.org/global/topics/economic-and-social-development/gender-and-development/lang--en/index.htm> [Accessed on 02/04/2015].

<sup>482</sup> M. Todaro, 'Economic Development' chapter 3, *op cit.*

<sup>483</sup> Reeves, H. & Baden, S., "Gender and Development: Concepts and Definitions," *op cit.*, p.10.

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scrutinised for their impact on gender relations and potential advantages or otherwise on men or women.<sup>484</sup>

The development of a nation should be carried out in partnership with the women and men and no one gender should be seen as either the senior or junior partner in the relationship.<sup>485</sup> Gender equality is an essential component of sustainable economic growth and poverty reduction.<sup>486</sup>

Equitable gender participation in sustainable development efforts calls for empowerment of both gender which should include participation by people in decisions and processes shaping their lives; participating in the market economy; challenging inequality and oppression; the liberation of both men and women; and empowerment as bottom-up process which cannot be bestowed from the top-down.<sup>487</sup> Arguably, social sustainability will not be achieved in a society where one gender is treated as superior to the other. It is, therefore, important to promote social justice and gender equity so as to achieve an inclusive and socially sustainable development.

### **17. Managing Natural Resource Conflicts for Sustainable Development**

Social conflicts, like all other kinds of conflicts, are inevitable in human interactions and if left unmanaged, they tend to degenerate into disputes that ruin the relations between persons or communities and yield undesired costs. It has rightly been observed that in any society, conflict is one of the major factors negatively affecting development as it diverts resources that could have otherwise been used productively.<sup>488</sup> Conflict is also regarded as undesirable in

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<sup>484</sup> *Ibid.*

<sup>485</sup> General Ibrahim Badamati Babangida, President of the Federal Republic of Nigeria, 'Extracts From the Opening Speeches,' *Abuja Declaration on Participatory Development: The Role of Women in Africa in the 1990*, United Nations Economic Commission for Africa. P.3. Adopted by the African Regional Conference on the Integration of Women in Development, Abuja, Nigeria, 6-10 November 1990 (4th meeting).

<sup>486</sup> Food and Agricultural Organization of the United Nations, *et al*, "Gender dimensions of agricultural and rural employment: Differentiated pathways out of poverty," Rome, 2010. p. x. Available at <http://www.fao.org/docrep/013/i1638e/i1638e.pdf> [Accessed on 13/5/2015].

<sup>487</sup> Chapter 2: *Development, Empowerment, and Participation*, available at <http://www.google.com/search?ie=ISO-8859-1&q=Chapter=2%3A=development%2C=empowerment=and=participation=&btnG=Search> [Accessed on 15/05/2015].

<sup>488</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Thirteen, for the full discussion; See also Muigua, K., Kariuki, F., Wamukoya, D., *Natural Resources and Environmental Justice in Kenya*, (Glenwood

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many societies since, in its violent form, it claims the lives of many people, destroy property, and diverts human as well as financial resources away from development.<sup>489</sup> Thus, conflicts ought to be managed effectively.

Natural resource conflicts continue to negatively affect Kenyans owing to the many weaknesses of the present legal and institutional framework. It is noteworthy that most of the sectoral laws mainly provide for conflict management through the national court system. National legal systems governing natural resource management are based on legislation and policy statements that are administered through regulatory and judicial institutions, where adjudication and arbitration are the main strategies for addressing conflicts, with decision-making vested in judges and officials who possess the authority to impose a settlement on disputants.<sup>490</sup> Further, decisions are more likely to be based on national legal norms applied in a standardized or rigid manner, with all-or-nothing outcomes. Thus, contesting parties often have very limited control over the process and outcomes of conflict management.<sup>491</sup>

There are many factors that determine the emergence, persistence, and even management of conflicts. The understanding of these factors is essential in developing policies that effectively limit and manage conflict. The factors range from internal to relational and contextual factors.<sup>492</sup>

It has rightly been observed that in the majority of cases of resource conflicts, one or more of the following drivers are usually at play: conflict over resource ownership; conflict over resource access; conflict over decision making associated with resource management; and conflict over distribution of resource revenues as well as other benefits and burdens.<sup>493</sup> These conflict drivers have

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Publishers, Nairobi – 2015), Chapter sixteen which examines the various approaches to the management of natural resource based conflicts.

<sup>489</sup> Mengesha, A.D., et al., “Indigenous Conflict Resolution Mechanisms among the Kembata Society.” *American Journal of Educational Research*, 2015, Vol. 3, No. 2, pp. 225-242 at p.227.

<sup>490</sup> FAO, ‘Negotiation and mediation techniques for natural resource management,’ op cit.

<sup>491</sup> Ibid.

<sup>492</sup> Louis, K., “Factors Shaping the Course of Intractable Conflict.” *Beyond Intractability*. Eds. Guy Burgess and Heidi Burgess. Conflict Research Consortium, University of Colorado, Boulder. Posted: October 2003. Available at <[http://www.beyondintractability.org/essay/factors\\_shaping\\_intractable\\_conflict/](http://www.beyondintractability.org/essay/factors_shaping_intractable_conflict/)>[ Accessed on 17/01/2016].

<sup>493</sup> The United Nations Department of Political Affairs and United Nations Environment Programme, *Natural Resources and Conflict: A Guide for Mediation Practitioners*, (2015, UN DPA and UNEP), p. 11.

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contributed to most of the natural resource conflicts in Kenya and should therefore be adequately addressed in managing the conflicts.<sup>494</sup>

It has been argued that conflicts associated with natural resources are often due to different perceptions regarding who should benefit from the conflicts, and are an indicator of resource availability, evolution of tenure rights and systems, accessibility and control over the resource.<sup>495</sup> They are believed to result from an imbalance in the power structure, where these power imbalances can exhibit themselves through unequal distribution of natural resource use and tenure rights.<sup>496</sup>

Where conflict cannot be contained in a functional way, it can erupt in violence, war, and destruction, loss of life, displacements, long-term injuries, psychological effects as a result of trauma suffered especially in case of violent conflicts, and deep fear, distrust, depression, and sense of hopelessness.<sup>497</sup>

Conflict also often produces significant environmental degradation.<sup>498</sup> It is difficult to justify environmental protection when other more immediate concerns exist as a result of the conflict. Therefore, environmental damage from accelerated resource extraction may be severe.

The Sustainable Development Goals (SDGs) recognise this connection and provide that sustainable development cannot be realized without peace and security; and peace and security will be at risk without sustainable development.<sup>499</sup> The SDGs go ahead to state that the new Agenda recognizes the need to build peaceful, just and inclusive societies that provide equal access to justice and that are based on respect for human rights (including the right to development), on effective rule of law and good governance at all levels and on

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<sup>494</sup> Campbell, D.J., et al, 'Land use conflict in Kajiado District, Kenya,' *Land Use Policy*, Vol.17, Issue 4, October 2000, pp. 337–348; Yamano, T, et al, 'Land Conflicts in Kenya: Causes, Impacts, and Resolutions,' *FASID Discussion Paper 2005-12-002*, available at [www3.grips.ac.jp/~yamanota/Land\\_Conflicts\\_in\\_Kenya\\_\(FASID\\_DP\).pdf](http://www3.grips.ac.jp/~yamanota/Land_Conflicts_in_Kenya_(FASID_DP).pdf) [ Accessed on 17/01/2016].

<sup>495</sup> Traore, S. & Lo, H., 'Natural Resource Conflicts and Community Forestry: A West African Perspective,' in FAO, *Annex C - Summary of Discussion Papers*, available at <http://www.fao.org/docrep/005/ac697e/ac697e13.htm#TopOfPage> [Accessed on 2/01/2016].

<sup>496</sup> Ibid.

<sup>497</sup> See Machel, G. & Mkapa, B., *Back from the Brink: the 2008 mediation process and reforms in Kenya*, (African Union Commission, 2014).

<sup>498</sup> Ballet, J., et al, 'Social Capital and Natural Resource Management: A Critical Perspective,' *The Journal of Environment & Development*, Vol. 16, No. 4, December 2007, pp. 355-374, p. 367.

<sup>499</sup> United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1, para. 35.

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transparent, effective and accountable institutions. Factors which give rise to violence, insecurity and injustice, such as inequality, corruption, poor governance and illicit financial and arms flows, are addressed in the Agenda.

The aim is to redouble the efforts to resolve or prevent conflict and to support post-conflict countries, including through ensuring that women have a role in peacebuilding and State building.<sup>500</sup> They also call for further effective measures and actions to be taken, in conformity with international law, to remove the obstacles to the full realization of the right of self-determination of peoples living under colonial and foreign occupation, which continue to adversely affect their economic and social development as well as their environment.<sup>501</sup> Thus, conflicts management should be one of the key issues that should be addressed in the quest for sustainable development.

It is, therefore, arguable that one of the way of stemming natural resource conflicts would be striking a balance between conservation measures and access to resources by communities, through employing approaches that help in understanding the needs of the particular people and responding appropriately and consequently building trust within communities and between communities and the national government. It has also been argued that for conflict management to be successful there is need to conduct a historical analysis (with the participation of local people) so that the major issues can be identified, analysed and discussed.<sup>502</sup>

While conflicts cannot be avoided, there is a need to effectively manage them so as to ensure harmony amongst people and to prevent violence and the potential loss of lives and property. Management of natural resource conflicts also ensures security in terms of a guarantee of continued access to and use of the environmental resources necessary for to survival from generation to generation.

Natural resource conflicts are sensitive considering that they arise from the need for people to satisfy their basic needs.<sup>503</sup> To them, justice would mean affording them an opportunity to get what they feel entitled to and anything less,

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<sup>500</sup> Ibid.

<sup>501</sup> Ibid.

<sup>502</sup> Chidhakwa, Z., 'Managing conflict around contested natural resources: a case study of Rusitu Valley area, Chimanimani, Zimbabwe,' *Natural Resource Conflict Management Case Studies: An Analysis of Power, Participation and Protected Areas*, (Southern Alliance for Indigenous Resources).

<sup>503</sup> FAO, 'Negotiation and mediation techniques for natural resource management,' available at <http://www.fao.org/3/a-a0032e/a0032e05.htm> [Accessed on 07/02/2016].

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means that they resort to other means of possessing the same. This way, conflicts become inevitable. Conflict resolution mechanisms such as negotiation and mediation affords the parties an opportunity to negotiate and reach a compromise agreement, where all sides get satisfactory outcome.<sup>504</sup> This is particularly important in ensuring that there will be no future flare-up of conflict due to unaddressed underlying issues.<sup>505</sup>

### **18. Moving beyond the Law: Sustainable Development as a Way of Life**

This sections offers recommendations on some of the ways that sustainable development can be achieved through nurturing the environment. However, the discussion is not exhaustive and there are more ways in which the same can be achieved, depending on the locality, amongst other factors.<sup>506</sup>

### **18.1 Poverty Eradication for Sustainable development**

It has rightly been pointed out that at the heart of the concept of sustainable development is the fulfilment of the basic needs of the world's poor without compromising the capacity of the environment to provide similar benefits for future generations.<sup>507</sup>

### **18.2 Use of Science, Technology and Innovation for Sustainable Development**

It has rightly been asserted that all utilisation of the renewable natural resources must be carried out on a sustained-yield basis; and all disposal of wastes (gaseous, liquid and solid) must be carried out on a sustained-discard basis, that is, at disposal rates not in excess of decomposition rates.<sup>508</sup> While it is difficult to establish such rates, the solution may lie in moving away from the

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<sup>504</sup> Warner, M., 'Conflict Management in Community-Based Natural Resource Projects: Experiences from Fiji and Papua New Guinea,' *Working Paper No. 135*, (Overseas Development Institute, April, 2000), p. 16.

<sup>505</sup> See generally Mwagiru, M., *Conflict in Africa: Theory, Processes and Institutions of Management*, op. cit.

<sup>506</sup> See Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016), chapter Fourteen, for the full discussion.

<sup>507</sup> Mbote, P.K. & Cullet, P., 'Environmental Justice and Sustainable Development: Integrating Local Communities in Environmental Management,' *ELRC Working Paper 1996 – 1*, (International Environmental Law Research Centre, 1996), p. 7.

Available at <http://www.ielrc.org/content/w9601.pdf> [Accessed on 12/09/2016].

<sup>508</sup> Westing, A.H., "Environmental Security and Its Relation to Ethiopia and Sudan," *Ambio*, Vol. 20, No. 5, Environmental Security (Aug., 1991), pp. 168-171, p. 168.

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increased use of synthetic waste and other non-decomposing wastes to the easily decomposing technology waste. For instance, in agriculture, it is imperative that the country adopts methods and technology that is friendlier to green economy practices as opposed to the polluting and dangerous chemicals.<sup>509</sup>

The need for technology transfer and innovation is well captured in *Maafikiano*, outcome document of the Nairobi UNCTAD 14<sup>th</sup> Conference, which states that ‘technology, including information and communications technology and innovation, plays a critical role in trade and development, including through its essential contribution to structural transformation, productive capacities, competitiveness and the diversification of production and exports as well as to advancing food security. It is thus a key means of implementation and a component of achieving the Sustainable Development Goals. It is also one of the most important levers of change for achieving inclusive and sustainable development. The development, transfer, dissemination and diffusion of environmentally sound technology to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed, is a means to implement the 2030 Agenda.

### **18.3 The Green Economy Approach**

According to UNEP (now UNEA), a green economy is one whose growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services.<sup>510</sup> Arguably, green economies are not based on the demand for sacrifice, but on the idea of qualitative growth, where low-carbon and environmentally friendly technologies, as well as international cooperation in this area play a key role.<sup>511</sup> The UNEA maintains that this development path should maintain, enhance and, where necessary, rebuild natural capital as a critical economic asset and source of public benefits, especially for poor people whose livelihoods and security depend strongly on nature.<sup>512</sup>

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<sup>509</sup> See Republic of Kenya, *Kenya Green Economy Strategy and Implementation Plan (GESIP)*, Maanzoni-1 Draft, May 2015.

<sup>510</sup> Ibid.

<sup>511</sup> Friedrich-Ebert-Stiftung, ‘Green Economy - A Sustainable Concept?’ Available at <http://www.fes-sustainability.org/en/discussions/green-economy-sustainable-concept> [Accessed on 11/09/2016].

<sup>512</sup> UNEP, ‘What is an "Inclusive Green Economy"?’ op cit.



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The transition to green economy needs careful management and engagement by government, business, communities and citizens to ensure its success in achieving a truly sustainable future that promotes social equity, poverty eradication and human well-being.<sup>513</sup>

### **18.4 Embracing Environmental Ethics for Sustainable Development**

It has rightly been pointed out that with the increasing deterioration of ecological systems on which human beings rely and the aggravation of the environmental crisis, human beings cannot rely on economic and judicial methods alone to solve the problems of environmental pollution and ecological imbalances; we must also appeal to human beings' limitless internal ethical resources.<sup>514</sup> Only after adoption of an appropriate attitude towards nature and establishment of a new ethical relationship between human beings and nature will we be able to love and respect nature automatically as well as conscientiously; and only with the guidance of such love and respect can we successfully deal with the issues of environmental pollution and ecological imbalances.<sup>515</sup>

It is important that the country integrates both anthropocentric and ecocentric approaches to environmental conservation and protection. This will ensure that the environment is not only secure for the sake of satisfying human needs, but also ensuring that it is healthy for the animals and plants.<sup>516</sup>

### **18.5 Education for Environmental Sustainability and Sustainable Development**

There is a close link between environmental degradation, lack of environmental justice and democracy, poverty and low levels of education among the citizenry, and provision of education is the crucial first step towards

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<sup>513</sup> Ten B.P., et al, *Nature and its Role in the Transition to a Green Economy*, (United Nations Environment Programme, 2012), p. 48. Available at <http://www.teebweb.org/wp-content/uploads/2013/04/Nature-Green-Economy-Full-Report.pdf> [Accessed on 11/09/2016].

<sup>514</sup> Yang, T., 'Towards an Egalitarian Global Environmental Ethics,' *Environmental Ethics and International Policy*, (ISBN 978-92-3-104039-9, UNESCO, 2006), p.23. Available at <http://publishing.unesco.org/chapters/978-92-3-104039-9.pdf> [Accessed on 11/09/2016].

<sup>515</sup> Ibid, p. 23.

<sup>516</sup> See generally, Oksanen M, 'Should Trees Have Standing? Law, Morality, and the Environment' 174.

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their elimination.<sup>517</sup> One way of empowering people is through education to give them alternative means of making a living for social sustainability<sup>518</sup> as opposed to relying on environment only, as well as enabling them make informed decisions that would contribute positively to environmental sustainability. Education is important for promoting sustainable development and improving the capacity of people to address environment and development issues.<sup>519</sup>

If empowered through education, people are able to make their own decisions especially in matters relating to exploitation of natural resources, Environmental Impact Assessment (EIA) and other matters that touch on development but have a bearing on the environment and the livelihoods of the people. The local communities would be able to actively engage potential investors in ensuring environmental sustainability. Principles of public participation in governance and environmental democracy as envisaged in the current Constitution of Kenya become easier to implement.

## **18.6 Promoting Environmental Justice for Sustainable Development**

There is also need to achieve environmental justice for all. Environmental justice is touted as the minimum ethical stance of environmental ethics, with two dimensions: distributive environmental justice and procedural/participatory environmental justice.<sup>520</sup> Distributive environmental justice concerns the equal distribution of environmental benefits and burdens, whereas participatory

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<sup>517</sup> See generally UNESCO, 'Educating for a Sustainable Future: A Transdisciplinary Vision for Concerted Action', EPD-97/CONF.401/CLD.1.November 1997.

<sup>518</sup> Social sustainability has been defined as concerning how individuals, communities and societies live with each other and set out to achieve the objectives of development models which they have chosen for themselves, also taking into account the physical boundaries of their places and planet earth as a whole. (Colantonio, A. & Dixon, T., 'Measuring Socially Sustainable Urban Regeneration in Europe,' (Oxford Brookes University: Oxford Institute for Sustainable Development (OISD), 2009) (As quoted in Woodcraft, S., et. al., 'Design for Social Sustainability: A framework for creating thriving new communities', *Social Life*, 2012, p.16. Available at

[http://www.futurecommunities.net/files/images/Design\\_for\\_Social\\_Sustainability\\_0.pdf](http://www.futurecommunities.net/files/images/Design_for_Social_Sustainability_0.pdf)  
[Accessed on 12/09/2016].

<sup>519</sup> UNESCO, 1992, para. 36.3, p. 2 (as quoted in Tilbury, D., 'Environmental Education for Sustainability: Defining the New focus of Environmental Education in the 1990's', *Environmental Education Research, Vol. 1, No. 2, 1995*, 195-212 at p.198.

<sup>520</sup> Yang, T., 'Towards an Egalitarian Global Environmental Ethics,' *Environmental Ethics and International Policy*, op cit., p. 32.

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environmental justice focuses on opportunities to participate in decision-making.<sup>521</sup>

It has been suggested that to achieve environmental justice, there are four broad areas where changes in policy and practice are needed: (a) Rights and responsibilities: ensuring a right to a healthy environment is an overarching aim of policy, which must be supported by placing responsibilities on individuals and organisations to ensure this right is achieved; (b) Assessment: projects and policies need to be assessed for their distributional impacts; (c) Participation and capacity: decision-making should involve those affected, and those groups or individuals enduring environmental injustices need support in order to increase their control over decisions which affect them; and (d) Integration: of social and environmental policy aims.<sup>522</sup>

Communities, with support from the Government, can come up with localized yet effective means of improving production, environmental conservation and reversing the effects of climate change, for enhanced environmental security and poverty eradication.

It has been suggested that translating any vision into action requires changing the way people work so that: sustainable development is the core principle underpinning the decision making process; critical issues are identified through discussion with key stakeholders; people and communities are at the centre of sustainable development planning; policies and programmes are integrated so that they are mutually reinforcing; funding and grant schemes compliment policy design and planning objectives; spending plans and budget agendas are aimed at achieving key sustainable development outcomes with realistic planning horizons; short term decisions are not contradictory to long-term objectives; the needs and opportunities of all are identified; the root causes and consequences of problems are addressed and the risks of inaction are recognized; successful examples of sustainable development are made mainstream as soon as possible; sustainable development is integrated into education and training programmes, and public understanding and awareness of the meaning of sustainable development and its day-to-day implications is increased.<sup>523</sup>

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<sup>521</sup> Ibid, p. 32.

<sup>522</sup> ESRC Global Environmental Change Programme, 'Environmental Justice: Rights and Means to a Healthy Environment for All,' op cit., p. 11.

<sup>523</sup> Environmental Advisory Council, 'Principles of Sustainable Development,' March 2013, op cit., p. 5.

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There is a need to take more action directed at addressing the challenges facing realisation of environmental security in the country. Although the international framework on environmental law has comprehensive and well-meaning provisions and principles that may help countries address environmental insecurity, most of them are merely prescriptive in nature without any force of law. As such they heavily rely on the countries' political goodwill.<sup>524</sup> It is undeniable that Kenya has done a lot to domesticate the provisions of the international legal instruments but more still needs to be done by way of implementing the same. The response to climate change in Kenya must adhere to the constitutional governance framework and commitment to sustainable development, while addressing the goal of attaining low carbon climate resilient development.

The country needs to closely work with communities, private sector and various stakeholders to promote and ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources. Indeed, a recent announcement by the Environment cabinet Secretary, who called for new stakeholder partnerships to address challenges facing the community based natural resources management, is to be lauded. The cabinet Secretary noted that over-exploitation of natural resources, limited access to markets; poverty and weak policies were rampant in areas endowed with community resources posing challenges in their exploitation. According to the Secretary, the Ministry was committed to support community-based environmental initiatives that recognize equity, fair-trade and benefits sharing of natural resource management.<sup>525</sup>

Society must decide how best to use its total capital stock today to increase current economic activities and welfare. Society must also decide how much it needs to save or accumulate for tomorrow, and ultimately, for the well-being of future generations.<sup>526</sup>

There is a need to move beyond the law and adopt other measures aimed at ensuring meaningful development. In conclusion, it is necessary that all stakeholders cooperate in nurturing the environment for the achievement of sustainable development, a prosperous and secure future for all.

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<sup>524</sup> See generally, Lang W, 'UN-Principles and International Environmental Law' (1999) 163 Max Planck UNYB 157.

<sup>525</sup> Ministry of Environment and Natural Resources, 'Ministry to Support Community Initiatives,' available at <http://www.environment.go.ke/?p=1467> [Accessed on 25/10/2015].

<sup>526</sup> UNEP, 'What is an "Inclusive Green Economy"?' op cit., p. 17.

# Nurturing Our Environment for Sustainable Development

## Select Bibliography

### Books/ Edited Book Chapters/Theses

- Ako, R., 'Resource Exploitation and Environmental Justice: the Nigerian Experience,' in Botchway, F.N. (ed), *Natural Resource Investment and Africa's Development*, (Cheltenham, UK: Edward Elgar Publishing, 2011).
- Birnie, P. & Boyle, A., *International Law and the Environment*, (2<sup>nd</sup> ed. Oxford University Press, New York, 2002).
- Birnie, P. et al, *International Law & the Environment*, (3<sup>rd</sup> ed., Oxford University Press, New York, 2009).
- Bodansky, D., Brunnée, J. and Hey, E., (eds), *The Oxford Handbook of International Environmental Law* (2007).
- Boyle, A.E. & Anderson, M.R., (eds), *Human Rights Approaches to Environmental Protection* (Oxford, 1996).
- Buckles, D & Rusnak, D, 'Conflict and collaboration in natural resource management,' (International Development Research Centre, 2005).
- Burton, J., *Conflict: Human Needs Theory* (St. Martin's Press, New York, 1990).
- 'Chapter 2: The Theory Behind the Sustainable Livelihood Approach,' in Morse, S. & McNamara, N., *Sustainable Livelihood Approach: A Critique of Theory and Practice*, (Springer Science+Business Media Dordrecht, 2013).
- Fenn, P., "Introduction to Civil and Commercial Mediation", in Chartered Institute of Arbitrators, *Workbook on Mediation*, (CIArb, London, 2002).
- French, A., *Negotiating Skills*, (Alchemy, 2003).
- Gilpin, A., *Environmental Impact Assessment (EIA): Cutting Edge for the 21st Century*, (Cambridge University Press, 1994) (eBooks).
- Herbert Kelman, *International Behavior: A Social Psychological Analysis* (Holt, Rinehart and Winston, New York, 1965).
- International Institute for Sustainable Development & United Nations Environment Programme, *Trade and Green Economy: A Handbook*, (International Institute for Sustainable Development, Geneva, 2014).
- International Union for Conservation of Nature and Natural Resources Environmental Policy and Law, Paper No. 31 Rev. 3, *Draft of the Joint Working Group convened by the Commission on Environmental Law (CEL) of the World Conservation Union (IUCN) and the International Council on Environmental Law (ICEL)*, 4<sup>th</sup> Ed., 2010.
- Lederach, J.P., *Building Peace: Sustainable Reconciliation in Divided Societies* (United States Institute of Peace, 1998).
- Machel, G. & Mkapa, B., *Back from the Brink: the 2008 mediation process and reforms in Kenya*, (African Union Commission, 2014).
- Merrills, J.G., *International Dispute settlement*, (Cambridge University Press, Cambridge, 1991).
- Moore, C., *The Mediation Process: Practical Strategies for Resolving Conflict*, (3<sup>rd</sup>, Jossey-Bass Publishers, San Francisco, 2004).
- Muigua, K., *Nurturing Our Environment for Sustainable Development*, Glenwood Publishers, Nairobi – 2016).
- ....., "Resolving Environmental Conflicts through Mediation in Kenya" Ph.D. Thesis, 2011, (Unpublished, University of Nairobi).
- Muigua, K., Kariuki, F., Wamukoya, D., *Natural Resources and Environmental Justice in Kenya*, (Glenwood Publishers Limited, 2015, Nairobi).

## Nurturing Our Environment for Sustainable Development

- Murray, J.S., et al, *Processes of Dispute Resolution: The Role of Lawyers*, (University casebook series, Foundation Press, 1989).
- Mwagiru, M., *Conflict in Africa; Theory, Processes and Institutions of Management*, (Centre for Conflict Research, Nairobi, 2006).
- Rothman, J., *Resolving Identity-Based Conflict: In Nations, Organizations, and Communities*. (Jossey-Bass Publishers, San Francisco, 1997).
- Rothman, J., *Resolving Identity-Based Conflicts* (Jossey Bass, San Francisco, 1997).
- Stiglitz, J., *Globalization and its Discontents* (Penguin Books, London, June 2002).
- Stone, C.D., *Should Trees Have Standing? Law, Morality, and the Environment*, (3rd Ed., Oxford University Press, April 7, 2010).
- Thatcher, A., 'Theoretical definitions and models of sustainable development that apply to human factors and ergonomics,' in Broberg, N. O., et al, (eds), *Human Factors In Organizational Design And Management – Xi, Nordic Ergonomics Society Annual Conference – 46*, 2014, pp. 747-752.
- Todaro, M. P., 'Economic Development' (7th ed., Addison Wesley, 2000).
- Todaro, M.P., 'Chapter four: Theories of Development: A Comparative Analysis,' pp. 110-144. Available at [http://www.aw-bc.com/info/todaro\\_smith/Chapter4.pdf](http://www.aw-bc.com/info/todaro_smith/Chapter4.pdf) [Accessed on 02/09/2016].
- Ury, W., *Getting to Yes with Yourself and Others*, (HarperThorsons, 2015).

### Journal Articles/Papers/Newspaper

- Al Ouran, N.M., 'Analysis of Environmental Health linkages in the EIA process in Jordan,' *International Journal of Current Microbiology and Applied Sciences*, Vol. 4, No. 7, 2015, pp. 862-871.
- Allenby, B.R., "Environmental Security: Concept and Implementation," *International Political Science Review / Revue internationale de science politique*, Vol. 21, No. 1 (Jan., 2000), pp. 5-21.
- Armitage, D., 'Adaptive Capacity and Community-Based Natural Resource Management,' *Environmental Management*, Vol. 35, No. 6, pp. 703–715.
- Asefa, S., 'Enhancing food access in Africa: The Botswana experience,' *Studies In Comparative International Development*, vol. 26, Issue 3 , Springer-Verlag, Fall 1991, pp 59-83.
- Ayeni, A.O. & Olorunfemi, F.B., 'Reflections on Environmental Security, Indigenous Knowledge and the Implications for Sustainable Development in Nigeria,' *Jorind*, Vol. 12, No. 1, June, 2014, pp. 46-57.
- Baraza, N., 'Lost Between Rhetoric and Reality: What Role for the Law and Human Rights in Redressing Gender Inequality?' *Kenya Law Reform* Vol. II [2008-2010].
- Barrett, C.B., *et al.*, 'Measuring Food Insecurity', *Science*, vol. 327, (12 February 2010), pp. 825-828.
- Baylis, C., and Carroll, R., "Power Issues in Mediation", *ADR Bulletin*, Vol. 1, No.8, Article1, 2005, p.135.
- Beckerman, W., "How Would you Like your 'Sustainability', Sir? Weak or Strong? A Reply to my Critics," *Environmental Values*, Vol.4, No. 2, (1995), pp.169-179.
- Beder, S, 'Costing the Earth: Equity, Sustainable Development and Environmental Economics,' *New Zealand Journal of Environmental Law*, Vol. 4, 2000, pp.227-243.
- Beg, N., 'Linkages between climate change and sustainable development,' *Climate Policy*, Vol. 2, 2002, pp.129–144.
- Berke, P.R., "Does Sustainable Development Offer a New Direction for Planning? Challenges for the Twenty-First Century," *Journal of Planning Literature*, Vol. 17, No. 1, 2002.
- Berkes, F., et. al., 'Rediscovery of Traditional Ecological Knowledge as Adaptive Management,' *Ecological Applications*, Vol. 10, No. 5, (Oct., 2000), pp. 1251-1262.
- Biswas, N.R., "Is the Environment a Security Threat? Environmental Security beyond Securitization," *International Affairs Review*, Vol. XX, No. 1, (Winter 2011).

## Nurturing Our Environment for Sustainable Development

- Bloomfield, D., “Towards Complementarity in Conflict Management: Resolution and Settlement in Northern Ireland”, *Journal of Peace Research*, Vol. 32, No. 2(May, 1995), p.152.
- Bob, U & Bronkhorst, S., ‘Environmental conflicts: Key issues and management implications,’ *African Journal on Conflict Resolution*, Special Issue on Environment and Conflict, Vol. 10 No. 2, 2010, pp. 9-30.
- Bocchi, S., et al, ‘Environmental Security: A Geographic Information System Analysis Approach—The Case of Kenya,’ *Environmental Management*, Vol. 37, No. 2, 2005, pp. 186–199.
- Boyd, D.R., ‘The Implicit Constitutional Right to Live in a Healthy Environment,’ *Review of European Community & International Environmental Law*, Vol. 20, No. 2, 2011, pp. 171-179.
- Boyle, A., ‘Human Rights and the Environment: Where Next?’ *The European Journal of International Law*, Vol.23, No. 3, 2012.
- Boyle, A., ‘Human Rights or Environmental Rights? A Reassessment’, *Fordham Environmental Law Review*, Vol. 18, 2007, p. 471.
- Bromwich, B., “Environmental degradation and conflict in Darfur: implications for peace and recovery,” *Humanitarian Exchange Magazine*, Issue 39, July 2008.
- Brunnee, J., “Environmental Security in the Twenty-First Century: New Momentum for the Development of International Environmental Law?” *Fordham International Law Journal*, Vol. 18, 1995, pp. 1742-1747.
- Bryan, E., et al., ‘Adapting agriculture to climate change in Kenya: Household strategies and determinants,’ *Journal of Environmental Management*, vol. 114, 15 January 2013, pp. 26–35.
- Chege, M. W., et al, ‘Lead contamination of traditional hand-dug wells in parts of Kwale County, Kenya,’ *International Journal of Physical Sciences*, Vol. 8, No.17, 9 May, 2013, pp. 835-839.
- Clarke, R.A., ‘Securing Communal Land Rights to Achieve Sustainable Development in Sub-Saharan Africa: Critical Analysis and Policy Implications,’ *Law, Environment and Development Journal*, Vol. 5, No.2, 2009, p. 130.
- Daily Nation, ‘Clashes in Kitengela as traders fight over market,’ (Nation media Group, Nairobi, September 8, 2015).
- Daly, E. & May, J.R., ‘Comparative environmental constitutionalism,’ *Jindal Global Law Review*, April 2015, Vol. 6, Issue 1, pp. 9–30.
- Daniels, S.E. & Walker, G.B., ‘Collaborative Learning And Ecosystem-Based Management,’ *Environ Impact Asses Rev*, Vol. 16, 1996, pp. 71-102.
- Desai, B.H. & Sidhu, B., ‘On the Quest for Green Courts in India,’ *Journal of Court Innovation*, Vol.3, No. 1, 2010, pp. 79-111.
- Downs, J.A., ‘A Healthy and Ecologically Balanced Environment: An Argument for A Third Generation Right,’ *Duke Journal of Comparative & International Law*, Vol. 3, 1993, pp. 351-385.
- Dutfield, G., ‘TRIPS-Related Aspects of Traditional Knowledge,’ *Case Western Reserve Journal of International Law*, Vol. 33, Iss. 2, 2001, pp. 233-275.
- Edo, Z.O., ‘The Challenges of Effective Environmental Enforcement and Compliance in the Niger Delta Region of Nigeria,’ *Journal of Sustainable Development in Africa*, Vol. 14, No.6, 2012, p. 262.
- Egondi, T., et al, ‘Community Perceptions of Air Pollution and Related Health Risks in Nairobi Slums,’ *International Journal of Environmental Research and Public Health*, Vol. 10, 2013, pp. 4851-4868.
- Ellis, S.C., ‘Meaningful Consideration? A Review of Traditional Knowledge in Environmental Decision Making,’ *Arctic*, Vol. 58, No. 1 (March 2005), p. 66–77.
- Fitzmaurice, M., ‘The Principle of Sustainable Development in International Development Law’ *International Sustainable Development Law*, Vol. 1 ISBN: 978-1-84826-314-7 (eBook).
- Francioni, ‘International Human Rights in an Environmental Horizon’, *European Journal of International Law*, Vol. 21, 2010, p.41.
- Gleditsch, N.P., “Armed Conflict and the Environment: A Critique of the Literature,” *Journal of Peace Research*, Vol. 35, No. 3, Special Issue on Environmental Conflict (May, 1998), pp. 381-400.

## Nurturing Our Environment for Sustainable Development

- Goodland, R., 'The Concept of Environmental Sustainability,' *Annual review of ecology and systematics*, Vol. 26, 1995, pp.1-24.
- Græger, N., "Environmental Security?" *Journal of Peace Research*, Vol. 33, No. 1 Feb., 1996, pp. 109-116.
- Gutes, M.C., 'Commentary: The concept of weak sustainability,' *Ecological Economics* Vol. 17, 1996, pp.147-156.
- Guthiga, P.M., 'Understanding Local Communities' Perceptions of Existing Forest Management Regimes of a Kenyan Rainforest,' *International Journal of Social Forestry (IJSF)*, 2008, Vol. 1, No.2, pp.145-166.
- Hathcock, J.N., 'The Precautionary Principle—An Impossible Burden Of Proof for New Products,' *AgBioForum*, Vol. 3, No. 4, 2000, pp. 255-258.
- Hattingh, J.P., *Conceptualizing ecological sustainability and ecologically sustainable development in ethical terms: Issues and challenges*. Stellenbosch: Stellenbosch University, 2001.
- HE, Y., "On the Performance of the Principle of Equitable and Reasonable Utilization in the Practice of the Utilization of Transboundary Water Resources," *iBusiness*, Vol. 1 No. 1, 2009, pp. 40-45.
- Hediger, W., (1999) "Reconciling "weak" and "strong" sustainability", *International Journal of Social Economics*, Vol. 26 Iss: 7/8/9, pp.1120 – 1144.
- Hjorth, P. & Ali, B., "Navigating towards sustainable development: A system dynamics approach," *Futures*, Vol.38, No. 1, 2006, pp. 74-92.
- Hopwood, B., *et al*, "Sustainable development: mapping different approaches." *Sustainable Development*, Vol. 13, Issue 1, 2005, pp.38–52.
- Horn, L., 'Reframing Human Rights in Sustainable Development,' *Journal of the Australasian Law Teachers Association*, 2013.
- Hove, SVD, 'Between consensus and compromise: acknowledging the negotiation dimension in participatory approaches,' *Land Use Policy*, Vol. 23, Issue 1, January 2006, pp. 10–17.
- Humphrey, M., "Three conceptions of irreversibility and environmental ethics: some problems," *Environmental Politics*, Vol.10, No. 1, 2001, pp. 138-154.
- Ingelson, A., *et al*, 'Philippine Environmental Impact Assessment, Mining and Genuine Development', *Law, Environment and Development Journal*, Vol. 5, No. 1, 2009, p. 7.
- Jenje, B., 'MP to compensate families injured by lead poison 'if guilty',' *Daily Nation*, Wednesday, April 29, 2015, (Nation Media Group, Nairobi, 2015).
- Jonge, B.D., 'What is Fair and Equitable Benefit-sharing?' *Journal of Agricultural and Environmental Ethics*, Vol. 24, 2011, pp.127–146.
- Kemp, R., *et al*, "Transition management as a model for managing processes of co-evolution towards sustainable development," *Perspectives on Radical Changes to Sustainable Consumption and Production (SCP)*, Vol.20, 2006.
- Khagram, S., *et al*, "From the Environment and Human Security to Sustainable Security and Development," *Journal of Human Development*, Vol. 4, No. 2, July 2003, pp. 289-313.
- Kibet L., 'Swazuri reveals plans to recognise forest settlers,' *The Standard*, Thursday, July 28, 2016 (The Standard Group, Nairobi, 2016).
- King G. & Lawrence, V., Africa, "A Continent in Crisis: The Economic and Social Implications of Civil War and Unrest among African Nations," *EDGE*, Final Spring 2005, June, 2005.
- Kravchenko, S, & John E.B., "Interpretation of human rights for the protection of the environment in the European Court of Human Rights," *Pac. McGeorge Global Business & Development Law Journal*, Vol. 25, 2012, p.245.
- Littig, B. & Grießler, E., 'Social sustainability: a catchword between political pragmatism and social theory,' *Int. J. Sustainable Development*, Vol. 8, Nos. 1/2, 2005, pp. 65-79.
- Lobell, D.B., *et al*, 'Prioritizing Climate Change Adaptation Needs for Food Security in 2030,' *Science*, Vol. 319, No.1, February 2008, pp. 607-610.
- Lydgate, E.B., 'Sustainable Development in the WTO: From Mutual Supportiveness to Balancing,' *World Trade Review 2012* Vol. 11, No. 4, pp. 621-639.



## Nurturing Our Environment for Sustainable Development

- Mbote, P. K., "Women, Land Rights and the Environment: The Kenyan Experience," *Development*, Vol. 49, No. 3, 2006, pp. 43-48.
- Mechlem, K., 'Food Security and the Right to Food in the Discourse of the United Nations,' *European Law Journal*, Vol. 10, 2004, pp. 631–648.
- Mengesha, A.D., 'The Role of Sidama Indigenous Institutions in Conflict Resolution: In the Case of Dalle Woreda, Southern Ethiopia,' *American Journal of Sociological Research*, Vol. 6 No. 1, 2016, pp. 10-26.
- Mohammad, N., 'Environmental Rights for Administering Clean and Healthy Environment towards Sustainable Development in Malaysia: A Case Study,' *International Journal of Business and Management*; Vol. 9, No. 8; 2014, pp. 191-198.
- Montada, L., 'Justice, Conflicts, and the Justice of Conflict Resolution,' *International Encyclopedia of the Social & Behavioral Sciences* (Second Edition, 2015), pp. 937–942.
- Morelli, J., 'Environmental Sustainability: A Definition for Environmental Professionals,' *Journal of Environmental Sustainability*, Vol. 1, Iss. 1, Article 2, 2011, pp. 1-9.
- Mwenda, A. & Kibutu, T.N., 'Implications of the New Constitution on Environmental Management in Kenya,' *Law, Environment and Development Journal*, Vol. 8, No. 1, 2012, p. 78.
- Myers, L.J. & Shinn, D.H., 'Appreciating Traditional Forms of Healing Conflict in Africa and the World,' *Black Diaspora Review*, Vol. 2, No.1, Fall 2010.
- Myrdal, G., 'What Is Development?' *Journal of Economic Issues*, Vol. 8, No. 4 (Dec., 1974), pp. 729-736.
- Narain, J.P., "The challenge of health & environment: Profiling risks & strategic priorities for now & the future," *Indian Journal of Medical Research*, Vol. 136, No.2, August, 2012, pp. 185–191.
- Ngwenya, S., "Africa has to Shed off the Resource Curse Stigma" *The Star Newspaper*, Friday January 3, 2014.
- Nyandika P., 'Green Bonds Value in Financial Investments,' *The Standard*, Tuesday, September 13, 2016 [The Standard Group, Nairobi, 2016].
- Ojwang, J.B., "The Role of the Judiciary in Promoting Environmental Compliance and Sustainable Development," 1 *Kenya Law Review Journal* 19 (2007), pp. 19-29.
- Okech, R.N., 'Wildlife-community conflicts in conservation areas in Kenya,' *African Journals Online*, p. 65. Available at <http://www.ajol.info/index.php/ajcr/Article/download/63311/51194> [Accessed on 22/07/2016].
- Okello, N., et al, 'The doing and un-doing of public participation during environmental impact assessments in Kenya,' *Impact Assessment and Project Appraisal*, Vol. 27, No.3, 2009, pp.217-226.
- Okpara, C. I., 'Right to a Clean and Healthy Environment: The Panacea to the Niger Delta Struggle,' *Journal of Politics and Law*, Vol. 5, No. 1; March 2012, pp. 3-8.
- Padilla, E., "Intergenerational equity and sustainability," *Ecological Economics* Vol.41, 2002, pp. 69-83.
- Pilger, J., "*Apartheid Did Not Die*" in "Freedom Next Time" (Edition, 2006); "Mandela's Greatness may be assured, but not his Legacy" *NewAfrican*, Jan. 2014.
- Ramanathan, V. & Feng, Y., 'Air pollution, greenhouse gases and climate change: Global and regional perspectives,' *Atmospheric Environment*, Vol.43, 2009, pp. 37–50.
- Retnowati, A., et al, 'Environmental Ethics in Local Knowledge Responding to Climate Change: An Understanding of Seasonal Traditional Calendar *Pranoto Mongso* and Its Phenology in Karst Area of Gunung Kidul, Yogyakarta, Indonesia,' *Procedia Environmental Sciences*, Vol. 20, 2014, pp. 785 – 794.
- Rita, F., "The Environmental Security Debate and Its Significance for Climate Change," *The International Spectator: Italian Journal of International Affairs*, Vol. 43, Issue 3, 2008, pp.51-65.
- Rukooko, A.B., 'Poverty and human rights in Africa: historical dynamics and the case for economic social and cultural rights', *The International Journal of Human Rights*, Vol. 14, Iss. 1, 2010.

## Nurturing Our Environment for Sustainable Development

- Runnals, D., 'Trade and Sustainable Development- the Emerging Issues' *Policy Matters* Issue no. 2, Spring 1998.
- Ruppel, Oliver C. "Third-generation human rights and the protection of the environment in Namibia." *Human rights and the rule of law in Namibia*, (Windhoek, Macmillan Education Namibia, 2008), pp. 101-120.
- Sayagie, G., 'Tension as different clans from Narok, Kajiado both claim Nguruman,' *Sunday Nation*, November 9, 2014, (Nation media Group, Nairobi, 2014).
- Schaap, A., 'Reconciliation as ideology and politics', *Constellations: an International Journal of Democratic and Critical Theory*, Vol.15, No.2, 2008, pp. 249-64.
- Shackleton, S., et al, 'Devolution And Community-Based Natural Resource Management: Creating Space for Local People to participate and Benefit?' *Overseas Development Institute Natural Resource Perspectives*, No. 76, March 2002.
- Sibanda, B.M.C. & Omwega, A.S., 'Some Reflections on Conservation, Sustainable Development and Equitable Sharing of Benefits from Wildlife in Africa: The Case of Kenya and Zimbabwe,' *South African Journal of Wildlife Research*, Vol. 26, No. 4, 1996, pp. 175-181.
- Songorwa, A.N., et al, 'Community-Based Wildlife Management in Africa: A Critical Assessment of the Literature,' *Natural Resources Journal*, vol. 40, summer, 2000, pp. 603-643.
- Tilbury, D., 'Environmental Education for Sustainability: Defining the New focus of Environmental Education in the 1990's', *Environmental Education Research*, Vol. 1, No. 2, 1995, 195-212.
- Vícha, O, The Polluter-Pays Principle In OECD Recommendations And Its Application In International And EC/EU Law, *Czech Yearbook of Public & Private International Law*, Vol. 2, 2011, pp. 57-67.
- Weiss, E.B., "In Fairness to Future Generations and Sustainable Development," *American University International Law Review*, Vol. 8, No. 1, 1992, pp. 19-26.
- Westing, A.H., "Environmental Security and Its Relation to Ethiopia and Sudan," *Ambio*, Vol. 20, No. 5, *Environmental Security* (Aug., 1991), pp. 168-171.
- Young, J.C., et al, 'The role of trust in the resolution of conservation conflicts,' *Biological Conservation*, Vol. 195, March 2016, pp. 196-202.

### Internet Sources

- Adams, W.M., "The Future of Sustainability: Re-thinking Environment and Development in the Twenty-first Century," *The World Conservation Union Report of the IUCN Renowned Thinkers Meeting, 29-31 January 2006*. Available at [http://cmsdata.iucn.org/downloads/iucn\\_future\\_of\\_sustainability.pdf](http://cmsdata.iucn.org/downloads/iucn_future_of_sustainability.pdf) [Accessed on 15/04/2015].
- Adamu, A & Ben, A., 'Migration and Violent Conflict in Divided Societies: Non-Boko Haram violence against Christians in the Middle Belt region of Nigeria,' *Nigeria Conflict Security Analysis Network (NCSAN) Working Paper No. 1*, (World Watch Research, Abuja, Nigeria, March 2015).
- Africa Development Bank, "Resource companies ripping-off Africa"-AFDB Chief Available at <http://uk.reuters.com/Article/2013/06/16/uk-africa-economy-idUKBRE95F0EH20130616> [Accessed on 10/02/2014].
- African News Agency (ANA), 'President of Kenya signs Access to Information Bill,' *The Citizen*, 3 September, 2016. Available at <http://www.citizen.co.za/1274336/president-of-kenya-signs-access-to-information-bill/> [Accessed on 10/09/2016].
- African Regional Intellectual Property Organization, available at <http://www.aripo.org/index.php/services/traditional-knowledge> [Accessed on 1/09/2015].
- AfriQua, 'Narok land disputes threaten water resources,' 18/03/2015, available at <http://onesafedrop.org/192/narok-land-disputes-threaten-water-resources/> [Accessed on 2/01/2016].

## Nurturing Our Environment for Sustainable Development

- Agutu, N., 'GSU deployed in Narok after two killed in Maasai, Kipsigis clashes,' *The Star Newspaper*, Dec. 26, 2015, 3:00 pm, Nairobi, available at [http://www.the-star.co.ke/news/2015/12/26/gsu-deployed-in-narok-after-two-killed-in-maasai-kipsigis-clashes\\_c1265922](http://www.the-star.co.ke/news/2015/12/26/gsu-deployed-in-narok-after-two-killed-in-maasai-kipsigis-clashes_c1265922) [Accessed on 2/01/2016].
- Alaedini, P. & Namazi, S., 'Decentralization and Sustainable Human Development: An Analysis of Local and Municipal Councils in Iran,' *Encyclopedia of Life Support Systems (EOLSS)*. Available at [www.eolss.net/Eolss-sampleAllChapter.aspx](http://www.eolss.net/Eolss-sampleAllChapter.aspx) [Accessed on 10/07/2016].
- Albrecht, P., et al (eds), 'Perspectives on Involving Non-State and Customary Actors in Justice and Security Reform,' (International Development Law Organization, 2011).
- Amnesty International, et al, 'Nowhere to go: Forced Evictions in Mau Forest, Kenya,' *Briefing Paper*, April 2007.
- Anderson, J., et al, 'Addressing Natural Resource Conflicts through Community Forestry: Setting the Stage,' available at <http://www.fao.org/docrep/005/ac697e/ac697e13.htm#TopOfPage> [Accessed on 17/01/2016].
- Austin, M.J.(ed), 'Understanding Poverty From Multiple Social Science Perspectives', A Learning Resource for Staff Development In Social Service Agencies, *Bay Area Social Services Consortium*, Available at <http://cssr.berkeley.edu/bassc/public/CompletePovertyReport082306.pdf> [Accessed on 15/02/2014].
- Azebre, A.I., et al, 'Indigenous Mechanisms of Dispute Resolution among the People of Adaboya Traditional Area,' July 2012, available at <https://www.modernghana.com/news/534448/1/indigenous-mechanisms-of-dispute-resolution-among-.html> [Accessed on 10/04/2016].
- Baland, J.M & Platteau, J.P., 'Compensations and Customary Rights in the Context of the Concessionaire Companies: An Economic Approach,' (International Growth Centre, September 25, 2013).
- Barouskaya I., 'Anthropocentrism & Ecocentrism: Finding Balance for Environment Protection' A presentation at the University of Limerick.
- Bellù, L.G., 'Development and Development Paradigms: A (Reasoned) Review of Prevailing Visions,' (Food and Agriculture Organization of the United Nations, May 2011). Available at [http://www.fao.org/docs/up/easypol/882/defining\\_development\\_paradigms\\_102EN.pdf](http://www.fao.org/docs/up/easypol/882/defining_development_paradigms_102EN.pdf) [Accessed on 02/09/2016].
- Berkes, F., et al, 'Co-Management: The Evolution Of The Theory And Practice of Joint Administration Of Living Resources,' TASO Research Report, Second Series, No. 1, *Paper Presented at the Second Annual Meeting of IASCP University of Manitoba, Winnipeg, Canada*, Sept. 26-29, 1991.
- Bertucci, G., & Alberti, A., 'Globalization and the Role of the State: Challenges and Perspectives.' Available at <http://unpan1.un.org/intradoc/groups/public/documents/un/unpan006225.pdf> [Accessed on 24 February, 2014].
- Biopirates Are Harming Indigenous Livelihoods*, available at <https://www.newsrecord.co/biopirates-are-harming-indigenous-livelihoods/> [Accessed on 27/06/2016].
- Boyd, D.R., 'The Effectiveness of Constitutional Environmental Rights,' *Yale UNITAR Workshop*, April 26/27, 2013, available at <https://environment.yale.edu/content/documents/00003438/BoydEffectiveness-of-Constitutional-Environmental-Rights.docx?1389969747> [Accessed on 23/07/2016].
- Boyle, A., 'Human Rights and the Environment: A reassessment' *First Preparatory Meeting of the World Congress on Justice, Governance and Law for Environmental Sustainability* (12 - 13 October 2011 - Kuala Lumpur, Malaysia).
- Buckles, D. (ed), *Cultivating Peace Conflict and Collaboration in Natural Resource Management*, (International Development Research Centre 1999).

## Nurturing Our Environment for Sustainable Development

- Business and Human Rights Resource Centre, 'Steep Rise in Allegations of Human Rights Abuse as Boom in Investment Brings Hope of Prosperity Business and Human Rights in Eastern Africa: A Regional Briefing Paper,' April 2014. Available at <http://businesshumanrights.org/sites/default/files/media/documents/eastern-afr-briefing-business-human-rights-apr-2014.pdf> [Accessed on 19/01/2016].
- Canadian Association for the Advancement of Women and Sport and Physical Activity (CAAWS), "What is Gender Equity?" Available at <http://www.caaws.ca/gender-equity-101/what-is-gender-equity/> [Accessed on 19/05/2015].
- Casey-Lefkowitz, N., et al, 'The Evolving Role of Citizens in Environmental Enforcement,' *Fourth International Conference on Environmental Compliance and Enforcement*. Available at <http://www.inece.org/4thvol1/futrell.pdf> [Accessed on 16/07/2016].
- Castro, A.P. & Ettenger, K., 'Indigenous Knowledge And Conflict Management: Exploring Local Perspectives And Mechanisms For Dealing With Community Forestry Disputes,' *Paper Prepared for the United Nations Food and Agriculture Organization, Community Forestry Unit, for the Global Electronic Conference on "Addressing Natural Resource Conflicts Through Community Forestry,"* (FAO, January-April 1996). Available at <http://www.fao.org/docrep/005/ac696e/ac696e09.htm> [Accessed on 10/04/2016].
- Castro, A.P. & Nielsen, E. (eds), 'Natural resource conflict management case studies: an analysis of power, participation and protected areas,' (Food and Agriculture Organization of the United Nations, 2003).
- Chambers, R., *Sustainable Livelihoods, Environment and Development: Putting Poor Rural People First*, IDS Discussion Paper 240, Brighton: IDS, 1987. Available at <https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/875/rc279.pdf?sequence=1&isAllowed=y>
- Chapter 2: History of Sustainability*, in *Sustainability and the U.S. EPA* (The National Academies Press, 2011), available at <http://www.nap.edu/read/13152/chapter/4> [Accessed on 25/08/2016].
- Chapter- Three: Equitable Utilisation* (International Water Law). Available at <http://www.internationalwaterlaw.org/bibliography/Articles/general/Part-%203.pdf> [Accessed on 27/08/2016].
- Chidhakwa, Z., 'Managing conflict around contested natural resources: a case study of Rusitu Valley area, Chimanimani, Zimbabwe,' *Natural Resource Conflict Management Case Studies: An Analysis of Power, Participation and Protected Areas*, (Southern Alliance for Indigenous Resources).
- Cloke, K., "The Culture of Mediation: Settlement vs. Resolution", *The Conflict Resolution Information Source*, Version IV, December 2005.
- CMDRR: Investing in participatory approaches to community empowerment, available at <http://www.ndma.go.ke/index.php/success-stories/93-cmdrr-investing-in-participatory-approaches-to-community-empowerment> [Accessed on 09/09/2016].
- Colchester, M., 'Sustaining the Forests: The Community-Based Approach in South and South-East Asia,' (United Nations Research Institute For Social Development, 1992).
- Constitution and Reform Education Consortium (CRECO), *Building a Culture of Peace in Kenya: Baseline Report On Conflict-Mapping and Profiles of 47 Counties in Kenya*, April, 2012, ISBN: 978-9966-21-158-3. Available at [https://www.humanitarianresponse.info/system/files/documents/files/CRECO\\_2012.pdf](https://www.humanitarianresponse.info/system/files/documents/files/CRECO_2012.pdf) [Accessed on 3/01/2016].
- Cooney, R., *The Precautionary Principle in Biodiversity Conservation and Natural Resource Management: An issues paper for policy-makers, researchers and practitioners*, (IUCN, Gland,

## Nurturing Our Environment for Sustainable Development

- Switzerland and Cambridge, 2004). Available at <http://www.sehn.org/pdf/PrecautionaryPrincipleissuespaper.pdf> [Accessed on 27/08/2016].
- Cosbey, A., 'Lessons Learnt on Trade and Sustainable Development: Distilling Six Years of Research from the Trade Knowledge Network' *International Institute for Sustainable Development*, 2005.
- Costantini, V. & Monni, S., "Measuring Human and Sustainable Development: an integrated approach for European Countries," *Working paper No. 41*, 2004. Available at <http://host.uniroma3.it/dipartimenti/economia/pdf/WP41.pdf> [Accessed on 15/04/2015].
- Daniels, SE & Walker, GB, 'Rethinking public participation in natural resource management: Concepts from pluralism and five emerging approaches.' Available at <http://dev.mtnforum.org/sites/default/files/publication/files/260.pdf> [Accessed on 3/01/2016].
- Dessein, J. et al (ed), 'Culture in, for and as Sustainable Development: Conclusions from the COST Action IS1007 Investigating Cultural Sustainability,' (University of Jyväskylä, Finland, 2015). Available at <http://www.culturalsustainability.eu/conclusions.pdf> [Accessed on 27/08/2016].
- Dick, R.M., *et al*, "Property Rights for Poverty Reduction," *2020 FOCUS BRIEF on the World's Poor and Hungry People*, October 2007, available at [http://www.ifpri.org/sites/default/files/publications/beijingbrief\\_meinzendick2.pdf](http://www.ifpri.org/sites/default/files/publications/beijingbrief_meinzendick2.pdf) [Accessed on 20/05/2015].
- Distributive Justice, Beyond Intractability, Available at <http://www.beyondintractability.org/essay/distributive-justice>, [Accessed on 15/02/2014].
- Doha Round of trade negotiations (Doha Development Agenda). Available at [https://www.wto.org/english/tratop\\_e/dda\\_e/dda\\_e.htm](https://www.wto.org/english/tratop_e/dda_e/dda_e.htm) [Accessed on 27/06/2016].
- Dorcey, A.H.J. & Riek, C.L., 'Negotiation-Based Approaches to the Settlement of Environmental Disputes in Canada,' *Workshop on Political Theory and Policy Analysis*, 1987.
- Dufey, A., *Biofuels production, trade and sustainable development: emerging issues*, International Institute for Environment and Development, 2006, London. Available at <http://pubs.iied.org/pdfs/15504IIED.pdf> [Accessed on 4th November, 2013].
- EAC, 'Environment and Natural Resources,' *EAC's Environment Agenda: A Healthy Natural Environment for Present and Future Generations*. Available at <http://www.eac.int/sectors/environment-and-natural-resources> [Accessed on 31/08/2016].
- EAIM, 'Peace and Stability Are Prelude to Economic Development and Prosperity,' available at <http://www.togoruba.org/togoruba1964/mainTogorubamap/mainMap/headingMap/English/2006/ArticlesFeb-2006/1802EAIM06-06EA.html> [Accessed on 10/02/2016].
- Eilerman, D., 'Give and Take - The Accommodating Style in Managing Conflict,' August 2006, available at <http://www.mediate.com/Articles/eilermanD5.cfm> [Accessed on 10/02/2016].
- Ejizu, C.I., 'African Traditional Religions And The Promotion of Community-Living in Africa,' available at <http://www.afrikaworld.net/afrel/community.htm> [Accessed on 10/02/2016].
- Emas, R., 'The Concept of Sustainable Development: Definition and Defining Principles,' Brief for GSDR 2015. Available at [https://sustainabledevelopment.un.org/content/documents/5839GSDR%202015\\_SD\\_concept\\_definition\\_rev.pdf](https://sustainabledevelopment.un.org/content/documents/5839GSDR%202015_SD_concept_definition_rev.pdf) [Accessed on 26/08/2016].
- Engel, A. & Korf, B., 'Negotiation and mediation techniques for natural resource management,' Prepared in the framework of the Livelihood Support Programme (LSP), An interdepartmental programme for improving support for enhancing livelihoods of the rural poor, (Food And Agriculture Organization Of The United Nations, Rome, 2005), available at

## Nurturing Our Environment for Sustainable Development

- [http://peacemaker.un.org/sites/peacemaker.un.org/files/NegotiationandMediationTechniquesforNaturalResourceManagement\\_FAO2005.pdf](http://peacemaker.un.org/sites/peacemaker.un.org/files/NegotiationandMediationTechniquesforNaturalResourceManagement_FAO2005.pdf) [Accessed on 9/01/2016].
- Environmental Advisory Council, ‘Principles of Sustainable Development,’ March 2013. Available at [https://www.princeedwardisland.ca/sites/default/files/publications/principles\\_of\\_sustainable\\_development.pdf](https://www.princeedwardisland.ca/sites/default/files/publications/principles_of_sustainable_development.pdf) [Accessed on 27/08/2016].
- Environmental protection Agency, ‘Strategic Environmental Assessment.’ Available at <http://www.epa.ie/monitoringassessment/assessment/sea/#.Vi5tmGuJ2CA>.
- Equitable and Reasonable Utilisation, *UN Watercourses Convention User’s Guide Fact Sheet Series: Number 4*. Available at <http://www.unwatercoursesconvention.org/documents/UNWC-Fact-Sheet-4-Equitable-and-Reasonable-Utilisation.pdf> [Accessed on 27/08/2016].
- European Commission, *Gender equality – glossary*, available at [http://ec.europa.eu/justice/gender-equality/glossary/index\\_en.htm](http://ec.europa.eu/justice/gender-equality/glossary/index_en.htm) [Accessed on 19/05/2015].
- European Environment Agency, Chapter Three: Green Economy, Europe’s environment — An Assessment of Assessments. <http://www.eea.europa.eu/publications/europes-environment-aoa/chapter3.xhtml> [Accessed on 12/09/2016].
- FAO, ‘Alternative Conflict Management: The Role of Alternative Conflict Management in Community Forestry,’ available at <http://www.fao.org/docrep/005/x2102e/X2102E02.htm> [Accessed on 27/06/2016].
- FAO, ‘Environmental Impact Assessment (EIA) and Environmental Auditing (EA),’ available at <http://www.fao.org/docrep/005/v9933e/v9933e02.htm> [Accessed on 20/07/2016].
- FAO, ‘Negotiation and mediation techniques for natural resource management,’ available at <http://www.fao.org/3/a-a0032e/a0032e05.htm> [Accessed on 07/02/2016].
- FAO, ‘Science and Technology to Meet the Challenges: Food-Security, Poverty-Alleviation, And Sustainability.’ Available at <http://www.fao.org/docrep/005/ac483e/ac483e08.htm> [Accessed on 24/02/2014].
- FAO, “Gender and Climate Change Research in Agriculture and Food Security for Rural Development,” FAO Training Guide, 2nd Ed., 2013. Available at <http://www.fao.org/docrep/015/md280e/md280e.pdf> [Accessed on 27/06/2016].
- Faucheux, S., *Principles of Sustainable Development - Vol. III – ‘Summary Principles for Sustainable Development.’* Available at <http://www.eolss.net/Sample-Chapters/C13/E1-46-06.pdf> [Accessed on 27/08/2016].
- Fisher, A.D., ‘A Human Rights Based Approach to the Environment and Climate Change’ A GI-ESCR Practitioner’s Guide, March 2014.
- Food and Agricultural Organization of the United Nations, *et al*, “Gender dimensions of agricultural and rural employment: Differentiated pathways out of poverty,” Rome, 2010. Available at <http://www.fao.org/docrep/013/i1638e/i1638e.pdf> [Accessed on 13/5/2015].
- Food and Agriculture Organization of the United Nations (FAO), *FAO and traditional knowledge: the linkages with sustainability, food security and climate change Impacts*, 2009.
- Food and Agriculture Organization of the United Nations, “FAO Policy on Gender Equality: Attaining Food Security Goals in Agriculture and Rural Development,” Rome, 2013. Available at <http://www.fao.org/docrep/017/i3205e/i3205e.pdf> [Accessed on 12/05/2015].
- Friedrich-Ebert-Stiftung, ‘Green Economy - A Sustainable Concept?’ Available at <http://www.fes-sustainability.org/en/discussions/green-economy-sustainable-concept> [Accessed on 11/09/2016].

## Nurturing Our Environment for Sustainable Development

- Funder, M., et al, 'Addressing Climate Change and Conflict in Development Cooperation Experiences from Natural Resource Management,' (Danish Institute for International Studies, DIIS, 2012), available at <https://www.ciaonet.org/attachments/20068/uploads> [Accessed on 10/01/2016].
- Gallopín, G., 'A systems approach to sustainability and sustainable development,' United Nations Sustainable Development and Human Settlements Division ECLAC/ Government of the Netherlands Project NET/00/063 "Sustainability Assessment in Latin America and the Caribbean" Santiago, Chile, March, 2003. Available at [http://repositorio.cepal.org/bitstream/handle/11362/5759/1/S033119\\_en.pdf](http://repositorio.cepal.org/bitstream/handle/11362/5759/1/S033119_en.pdf) [Accessed on 27/08/2016].
- Galmés, G.V., 'Trade as an enabler of sustainable development and poverty eradication,' in United Nations, *The Road from Rio+20: Towards Sustainable Development Goals*, Issue 4, September 2014. UNCTAD/DITC/TED/2014/1 Available at [http://unctad.org/en/PublicationsLibrary/ditcted2014d1\\_en.pdf](http://unctad.org/en/PublicationsLibrary/ditcted2014d1_en.pdf) [Accessed on 05/09/2016].
- Ghaida, D.A. & Klasen, S., "The Costs of Missing the Millennium Development Goal on Gender Equity," *Munich Economics Discussion paper* 2003-01. Available at [http://www.ungei.org/infobycountry/files/univmunich\\_0301\\_klasen.pdf](http://www.ungei.org/infobycountry/files/univmunich_0301_klasen.pdf) [Accessed on 16/05/2015].
- Gichu, A. & Chapman, S., *Overview of REDD+ in Kenya*, REDD+ Law Project -Briefing Paper, July 2014. Available at <http://www.4cmr.group.cam.ac.uk/filecab/redd-lawproject/20140821%20BP%20Overview%20of%20REDD-%20in%20Kenya.pdf> [Accessed on 28/07/2016].
- Global Policy Forum, *Poverty and Development in Africa*, Available at <http://www.globalpolicy.org/social-and-economic-policy/poverty-and-development/poverty-and-development-in-africa.html> [Accessed on 17/02/2014].
- Globalization 101, 'What Is Globalization?' The Levin Institute - The State University of New York, Available at <http://www.globalization101.org/what-is-globalization/> [Accessed on 24/02/2014].
- Glover, F., et al, 'Reinforcing the Links between Trade, Sustainable Development and Gender: an Overview of the Papers of the Expert Workshop,' United Nations Conference on Trade and Development. Papers prepared in support of the themes discussed at the Pre-UNCTAD X Expert Workshop on Trade, Sustainable Development and Gender (Geneva, 12-13 July 1999).
- Gomes, N., 'Access to water, pastoral resource management and pastoralists' livelihoods: Lessons learned from water development in selected areas of Eastern Africa (Kenya, Ethiopia, Somalia),' (Food and Agriculture Organization of the United Nations, 2006), available at <ftp://ftp.fao.org/docrep/fao/009/ah247e/ah247e00.pdf> [Accessed on 17/01/2016].
- Gordon, D., Chapter 1, 'Definitions of Concepts for the Perceptions of Poverty and Social Exclusion.' Available at [www.bris.ac.uk/poverty/downloads/.../pse/99-Pilot/99-Pilot\\_1.doc](http://www.bris.ac.uk/poverty/downloads/.../pse/99-Pilot/99-Pilot_1.doc) [Accessed 15/02/ 2014].
- Gorjestani, N., 'Indigenous Knowledge for Development: Opportunities and Challenges,' in Twarog, S. & Kapoor, P. (eds), 'Protecting and Promoting Traditional Knowledge: Systems, National Experiences and International Dimensions,' (United Nations Conference on Trade and Development, 2004), UNCTAD/DITC/TED/10, pp. 265-272. Available at [http://unctad.org/en/docs/ditcted10\\_en.pdf](http://unctad.org/en/docs/ditcted10_en.pdf) [Accessed on 10/04/2016].

## Nurturing Our Environment for Sustainable Development

- Green, D., *From Poverty to Power: How active citizens and effective states can change the world*, (Foreword by Amartya Sen), Rugby, UK: Practical Action Publishing and Oxford: Oxfam International, 2nd ed., 2012).
- Grossman, E. (ed), 'Integrating Land Use Planning & Biodiversity,' (Defenders of Wildlife, Washington, D.C., 2003).
- Handl, G., 'Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), 1972 and the Rio Declaration on Environment and Development, 1992' (United Nations Audiovisual Library of International Law, 2012).
- Harris, J.M, "Sustainability and Sustainable Development," *International Society for Ecological Economics Internet Encyclopaedia of Ecological Economics*, February 2003. Available at <http://www.isecoeco.org/pdf/susdev.pdf> [Accessed on 20/04/2015].
- Harris, J.M., Basic Principles of Sustainable Development, Global Development and Environment Institute, Working Paper 00-04, June 2000. Available at [http://www.ase.tufts.edu/gdae/publications/working\\_papers/Sustainable%20Development.PDF](http://www.ase.tufts.edu/gdae/publications/working_papers/Sustainable%20Development.PDF) [Accessed on 25/08/2016].
- Haysom, N. & Kane, S., 'Negotiating natural resources for peace: Ownership, control and wealth-sharing,' Centre for Humanitarian Dialogue, Briefing Paper, October 2009.
- Hazen, S., 'Environmental Democracy,' (1998). Available at <http://www.ourplanet.com> [Accessed on 25/02/2014].
- Higenbottam, N., 'Nurse's Role as an Environmental Activist.' Available at <http://www.theluminaryproject.org/downloads/Essay%20Contest%20Higenbottam.pdf> [Accessed on 1/09/2015].
- Horenstein, N. & Nadine R, 'Women and Food Security in Kenya', *PPR Working Paper Series*, Women in Development Division, World Bank, June 1989, WPS 232. Available at [http://www.wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2000/08/23/000009265\\_3960928010917/Rendered/PDF/multi\\_page.pdf](http://www.wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2000/08/23/000009265_3960928010917/Rendered/PDF/multi_page.pdf) [Accessed on 18/07/2014].
- IISD, 'A Brief History of Trade, Finance and Sustainable Development.' Available at [http://www.iisd.ca/process/trade\\_invest-intro.htm](http://www.iisd.ca/process/trade_invest-intro.htm) [Accessed on 08/09/2016].
- InterAction, *Environment & Climate: Overview-Our Work*, available at <https://www.interaction.org/project/environment/overview> [Accessed on 6/07/2016].
- International Finance Corporation, 'The Art and Science of Benefit Sharing in the Natural Resource Sector,' *Discussion Paper*, February 2015. Available at [http://www.ifc.org/wps/wcm/connect/8e29cb00475956019385972fbd86d19b/IFC\\_Art+and+Science+of+Benefits+Sharing\\_Final.pdf?MOD=AJPERES&CACHEID=8e29cb00475956019385972fbd86d19b](http://www.ifc.org/wps/wcm/connect/8e29cb00475956019385972fbd86d19b/IFC_Art+and+Science+of+Benefits+Sharing_Final.pdf?MOD=AJPERES&CACHEID=8e29cb00475956019385972fbd86d19b) [Accessed on 13/07/2016].
- International Fund for Agricultural Development, *The future of world food and nutrition security: Investing in smallholder agriculture – an international priority*, May 2012. Available at [http://www.ifad.org/hfs/index\\_full.htm](http://www.ifad.org/hfs/index_full.htm) [Accessed on 18/07/2014].
- International Institute for Sustainable Development – Reporting Services Division, "Climate and Atmosphere: Introduction to the UNFCCC and Kyoto Protocol," available at [http://www.iisd.ca/process/climate\\_atm-fcccintr.htm](http://www.iisd.ca/process/climate_atm-fcccintr.htm) [Accessed on 24/10/2015].
- International Institute for Sustainable Development & United Nations Environment Programme, *Trade and Green Economy: A Handbook* (International Institute for Sustainable Development, Geneva, 2014). Available at <http://www.unep.org/roe/Portals/139/documents/trade-green-economy-handbook-third-edition-en.pdf> [Accessed on 4/09/2016].



## Nurturing Our Environment for Sustainable Development

- International Institute for Sustainable Development, 'The World Trade Organization and Sustainable Development: An Independent Assessment.' A Report by the International Institute for Sustainable Development, 1996.
- International Labour Organisation, *Gender and Development*, available at <http://www.ilo.org/global/topics/economic-and-social-development/gender-and-development/lang--en/index.htm> [Accessed on 02/04/2015].
- International Water Management Institute, Breaking the Cycles of Land Degradation: A case study from Ban Lak Sip, Laos, *Water Policy Briefing Series*, Issue No. 16, December, 2005. Available at [http://www.iwmi.cgiar.org/Publications/Water\\_Policy\\_Briefs/PDF/wpb16.pdf](http://www.iwmi.cgiar.org/Publications/Water_Policy_Briefs/PDF/wpb16.pdf) [Accessed on 17/07/2014].
- Irobi, E.G., 'Ethnic Conflict Management in Africa: A Comparative Case Study of Nigeria and South Africa,' May, 2005, available at <http://www.beyondintractability.org/casestudy/irobi-ethnic> [Accessed at 23/04/2016].
- IUCN – The World Conservation Union, *Depend on Nature: Ecosystem Services supporting Human Livelihoods*, 2005. Available at <https://portals.iucn.org/library/efiles/documents/2005-009.pdf> [Accessed on 1/09/2015].
- Jenkins, M & Umoh, E., 'Africa in Conflict and Crisis: Critical Perspectives on the Role of Conflict Diamonds and Oil on the Livelihood of Sierra Leone and Nigeria.' Autumn, 2002. Available at <http://web.stanford.edu/class/e297a/Africa%20in%20Conflict%20and%20Crisis.htm> [Accessed on 17/01/2016].
- Keiner, M., 'History, Definition(s) and Models of "Sustainable Development."' Available at <http://e-collection.library.ethz.ch/eserv/eth:27943/eth-27943-01.pdf> [Accessed on 25/08/2016].
- Kenya Wildlife Service, *Human Wildlife Conflict Mitigation Measures*, available at [http://www.kws.org/parks/community\\_wildlife\\_program/HWC.html](http://www.kws.org/parks/community_wildlife_program/HWC.html) [Accessed on 18/07/2014].
- Khamadi, S., 'Counties struggle to gain control over local natural resources in Kenya,' Wednesday January 9th, 2013, available at <http://landquest.internewskenya.org/counties-struggle-to-gain-control-over-local-natural-resources-in-kenya/> [Accessed on 2/01/2016].
- Kilangi, A., Introductory note: Permanent Sovereignty over Natural Resources General Assembly resolution 1803 (XVII), New York, 14 December 1962, *Audiovisual Library of International Law*. Available at [http://legal.un.org/avl/ha/ga\\_1803/ga\\_1803.html](http://legal.un.org/avl/ha/ga_1803/ga_1803.html) [Accessed on 22/02/ 2014].
- Kiss, A., 'Making Biodiversity Conservation a Land Use Priority,' available at <http://www2.gsu.edu/~wwwcec/special/AgiBookChapter2002.pdf> [Accessed on 27/07/2016].
- Kithiia, S.M., 'Water Quality Degradation Trends in Kenya over the Last Decade, Water Quality Monitoring and Assessment, 2012. Available at <http://www.intechopen.com/books/water-quality-monitoring-and-assessment/water-quality-degradation-trends-in-kenya-over-the-last-decade> [Accessed on 02/09/2015].
- Krantz, L., 'The Sustainable Livelihood Approach to Poverty Reduction: An Introduction,' (Swedish International Development Cooperation Agency, February, 2001). Available at [http://www.sida.se/contentassets/bd474c210163447c9a7963d77c64148a/the-sustainable-livelihood-approach-to-poverty-reduction\\_2656.pdf](http://www.sida.se/contentassets/bd474c210163447c9a7963d77c64148a/the-sustainable-livelihood-approach-to-poverty-reduction_2656.pdf) [Accessed on 16/10/2015].
- Lamb, D. & Gilmour, D., *Rehabilitation and Restoration of Degraded Forests*. (IUCN, Gland, Switzerland and Cambridge, UK and WWF, Gland, Switzerland, 2003). Available at [http://cmsdata.iucn.org/downloads/rehabilitation\\_and\\_restoration\\_of\\_degraded\\_forests.pdf](http://cmsdata.iucn.org/downloads/rehabilitation_and_restoration_of_degraded_forests.pdf) [Accessed on 13/07/2016].
- Latham, G. J., "A study on gender equality as a prerequisite for sustainable development," *Report to the Environment Advisory Council*, Sweden, and 2007:2. Available at

## Nurturing Our Environment for Sustainable Development

- [http://www.uft.oekologie.unibremen.de/hartmutkoehler\\_fuer\\_studierende/MEC/09MECreading/gender%202007%20EAC%20rapport\\_engelska.pdf](http://www.uft.oekologie.unibremen.de/hartmutkoehler_fuer_studierende/MEC/09MECreading/gender%202007%20EAC%20rapport_engelska.pdf) [Accessed on 03/04/2015].
- Lohde, L.A., *The Art and Science of Benefit Sharing in the Natural Resource Sector*, (International Finance Corporation, 2015). Available at [http://www.ifc.org/wps/wcm/connect/8e29cb00475956019385972fbd86d19b/IFC\\_Art+and+Science+of+Benefits+Sharing\\_Final.pdf?MOD=AJPERES&CACHEID=8e29cb00475956019385972fbd86d19b](http://www.ifc.org/wps/wcm/connect/8e29cb00475956019385972fbd86d19b/IFC_Art+and+Science+of+Benefits+Sharing_Final.pdf?MOD=AJPERES&CACHEID=8e29cb00475956019385972fbd86d19b) [Accessed on 13/07/2016].
- Loon, J.V., 'Canada Natives Block Energy Projects: 'We Own It All',' *Bloomberg Markets*, January 27, 2014. Available at <http://www.bloomberg.com/news/Articles/2014-01-27/harper-collides-with-native-canadians-natural-resources-claims> [Accessed on 20/01/2016].
- Lumerman, P., et al, 'Climate Change Impacts on Socio-environmental Conflicts: Diagnosis and Challenges of the Argentinean Situation,' (Initiative for Peacebuilding 2011).
- Mackenzie Valley Environmental Impact Review Board, *Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment*, July 2005. Available at [http://www.reviewboard.ca/upload/ref\\_library/1247177561\\_MVReviewBoard\\_Traditional\\_Knowledge\\_Guidelines.pdf](http://www.reviewboard.ca/upload/ref_library/1247177561_MVReviewBoard_Traditional_Knowledge_Guidelines.pdf) [Accessed on 10/04/2016].
- Magnarella, P.J., "Achieving Human Rights in Africa." 4(2): 2. [online] URL:<http://web.africa.ufl.edu/asq/v4/v4i2a2.htm> [Accessed on 15/02/2014].
- Maia, M., 'NGOs as Mediators: Their role in expertise, language and institutional exemption in urban development planning,' Working Paper No. 77, May 1996.
- Maiese, M., "Principles of Justice and Fairness," in Burgess, G. and Heidi Burgess, H. (Eds.) Conflict Information Consortium, *Beyond Intractability*, University of Colorado, Boulder (July 2003).
- Matiru V., 'Conflict & Natural Resource Management,' (Food & Agriculture Organisation, 2000).
- Mbote, P.K. & Cullet, P., 'Environmental Justice and Sustainable Development: Integrating Local Communities in Environmental Management,' ELRC Working Paper 1996 – 1, (International Environmental Law Research Centre, 1996). Available at <http://www.ielrc.org/content/w9601.pdf> [Accessed on 12/09/2016].
- Migai Akech, "Land, the environment and the courts in Kenya," *A background paper for The Environment and Land Law Reports*, February 2006, 1 KLR (E&L) xiv-xxxiv. Available at <http://www.kenyalaw.org> [Accessed on 09/01/2016].
- Momanyi, A., *WIO Regional State of Coast Report*, 'Chapter 33: Governance: Legal and Institutional Frameworks.' Available at <http://www.unep.org/NairobiConvention/docs/WIO%20Regional%20State%20of%20Coast%20Report%20%20Chapter%2033.%20GOVERNANCE-LEGAL%20AND%20INSTITUTIONAL%20FRAMEWORKS.pdf> [Accessed on 31/08/2016].
- Muigua, K. & Kariuki, F., "Sustainable Development and Equity in the Kenyan Context." Available at <http://www.kmco.co.ke/attachments/Article/104/A%20Paper%20on%20Sustainable%20Development%20and%20Equity%20in%20the%20Kenyan%20Context.pdf> [Accessed on 27/06/2016].
- Muigua, K., & Musyimi, P.N., *Enhancing Environmental Democracy in Kenya*, available at [http://www.kmco.co.ke/attachments/Article/81/072\\_Envtal\\_Dem\\_Kenya.pdf](http://www.kmco.co.ke/attachments/Article/81/072_Envtal_Dem_Kenya.pdf) [Accessed on 18/09/2014].
- Muigua, K., 'Empowering the Kenyan People through Alternative Dispute Resolution Mechanisms,' *Paper Presented at the CI Arb Africa Region Centenary Dispute 2015*, held on 15-17 July, 2015 at Victoria Falls Convention Centre, Zambezi Sun Hotel, Livingstone, Zambia, ([www.kmco.co.ke](http://www.kmco.co.ke)).
- ....., 'Environmental Impact Assessment (EIA) in Kenya.' Available at <http://www.kmco.co.ke/attachments/Article/109/A%20Paper%20on%20Environmental%20Impact%20Assessment.pdf> [Accessed on 27/06/2016].
- Muiruri, M., 'Kenya loses Sh70m to biopirates in Biopiracy,' (Northwest Resistance against Genetic Engineering). Available at

## Nurturing Our Environment for Sustainable Development

- <http://nwrage.org/content/kenya-loses-sh70m-biopirates> [Accessed on 27/07/2016].
- Musyoka, A., 'Kenya: Four Killed at Kinango in Clash Over Grazing Land,' *The Star Newspaper*, Dec. 19, 2014, Nairobi, available at <http://allafrica.com/stories/201412190701.html> [Accessed on 2/01/2016].
- Mutisi, M., "Local conflict resolution in Rwanda: The case of abunzi mediators", in M. Mutisi and K. Sansculotte-Greenidge (eds), *Integrating Traditional and Modern Conflict Resolution: Experiences from selected cases in Eastern and the Horn of Africa*, pp. 41-74 (African Centre for the Constructive Resolution of Disputes (ACCORD), Africa Dialogue Monograph Series No. 2/2012).
- Myers, N., "Environmental Security: What's New and Different?" Available at <http://www.envirosecurity.org/conference/working/newanddifferent.pdf> [Accessed on 11/10/2015].
- National Drought Management Authority Website. Available at <http://www.ndma.go.ke/index.php/features/about-ndma>. [Accessed on 27/06/2016].
- National Environment Management Authority, 'Adaptation Fund and GCF programmes,' available at [http://www.nema.go.ke/index.php?option=com\\_content&view=Article&id=229&Itemid=461](http://www.nema.go.ke/index.php?option=com_content&view=Article&id=229&Itemid=461) [Accessed on 28/07/2016].
- National Green Tribunal, available at <http://www.greentribunal.gov.in/> [Accessed on 28/07/2016].
- Neumayer, E., 'Sustainability and Well-being Indicators,' Research Paper No. 2004/XX, (UNU World Institute for Development Economics Research (UNU-WIDER), March 2004. Available at <http://www.lse.ac.uk/geographyAndEnvironment/whosWho/profiles/neumayer/pdf/SustainabilitywellbeingArticle.pdf> [Accessed on 27/08/2016].
- Nicoleta, D.D., 'The Polluter-Pays Principle- -Expression of Tort Liability for Environmental Protection,' *Analele Universității din Oradea, Fascicula Protecția Mediului Vol. XVIII, 2012*. Available at [http://protmed.uoradea.ro/facultate/anale/protectia\\_mediului/2012A/im/11.%20Dascalu%20Diana.pdf](http://protmed.uoradea.ro/facultate/anale/protectia_mediului/2012A/im/11.%20Dascalu%20Diana.pdf) [Accessed on 27/08/2016].
- Nijkamp, P., "Environmental Security and Sustainability in Natural Resource Management: A Decision Support Framework," *Serie Research Memoranda, 1997*. Available at <http://degree.uvu.vu.nl/RePEc/vua/wpaper/pdf/19970063.pdf> [Accessed on 16/10/2015].
- OECD Roundtable on Sustainable Development, Fourth Meeting, Paris 27-28 June 2008, 'Trade Liberalisation and Sustainable Development' Background Paper.
- Olenasha, W.T., 'The Enforcement of Environmental Rights: A Case Study of the New South African Constitutional Dispensation,' *Thesis (LLM (Human Rights and Democratisation in Africa))* (University of Pretoria, 2001), available at [http://repository.up.ac.za/bitstream/handle/2263/969/olenasha\\_wt\\_1.pdf?sequence=1&isAllowed=y](http://repository.up.ac.za/bitstream/handle/2263/969/olenasha_wt_1.pdf?sequence=1&isAllowed=y) [Accessed on 28/08/2015].
- Pandey, D.N., 'Traditional Knowledge Systems for Biodiversity Conservation.' Available at [http://www.infinityfoundation.com/mandala/t\\_es/t\\_es\\_pande\\_conserve.htm](http://www.infinityfoundation.com/mandala/t_es/t_es_pande_conserve.htm) [Accessed on 27/06/2016].
- Patricia Kameri-Mbote, 'Towards greater Access to Justice in Environmental Disputes in Kenya: Opportunities for Intervention,' IELRC Working 2005-1.
- Pelenc, J., 'Weak versus Strong Sustainability,' *Technical Report · March 2015*, Brief for GSDR 2015. Available at [https://www.researchgate.net/publication/280979919\\_Weak\\_versus\\_Strong\\_Sustainability](https://www.researchgate.net/publication/280979919_Weak_versus_Strong_Sustainability) [Accessed on 27/08/2016].
- Perrez, F.X., 'Key questions concerning the human rights and environment debate: An introduction,' in *Human Rights and the Environment: Proceedings of a Geneva Environment Network roundtable*, (United Nations Environment Programme for the Geneva Environment Network, 2004).
- Pkalya, R., et al, 'Conflict in Northern Kenya: A focus on the internally displaced conflict victims in Northern Kenya,' available at

## Nurturing Our Environment for Sustainable Development

- [http://practicalaction.org/docs/region\\_east\\_africa/conflict\\_in\\_northern\\_kenya.pdf](http://practicalaction.org/docs/region_east_africa/conflict_in_northern_kenya.pdf) [Accessed on 23/04/2016].
- Pradeep, B. & Madhur, Y., 'New Judicial Roles and Green Courts in India,' available at [http://inece.org/conference/9/papers/Bakshi\\_India\\_Final.pdf](http://inece.org/conference/9/papers/Bakshi_India_Final.pdf) [Accessed on 28/07/2016].
- Prunella, C., 'An International Environmental Law case study: The Trail Smelter Arbitration,' December, 2014. Available at <http://intlpollution.commons.gc.cuny.edu/an-international-environmental-law-case-study-the-trail-smelter-arbitration/> [Accessed on 27/08/2016].
- Prüss-Üstün, A. & Corvalán, C., *Preventing disease through healthy environments*, (World Health Organization, Geneva, 2006). Available at [http://www.who.int/quantifying\\_ehimpacts/publications/preventingdisease.pdf](http://www.who.int/quantifying_ehimpacts/publications/preventingdisease.pdf) [Accessed on 27/06/2016].
- Rajaram, A., "Rich Countries, Poor People; Will Africa's Commodity Boom Benefit the Poor", available on <http://blogs.worldbank.org/african/rich-countries-poor-people-will-africa-s-commodity-boom-benefit-poor> [Accessed on 7/01/2014].
- Reeves, H. & Baden, S., "Gender and Development: Concepts and Definitions," *Prepared for the Department for International Development (DFID) for its gender mainstreaming intranet resource*. Institute of Development Studies, Report No 55, February 2000.
- Republic of Kenya, *Millennium Development Goals in Kenya: Needs & Costs*, Government Printer, Nairobi, 2005. Available at <http://planipolis.iiep.unesco.org/upload/Kenya/Kenya%20MDG%20Needs%20Assessment.pdf> [Accessed on 18/07/2014].
- Ristanić, A., 'Alternative Dispute Resolution And Indigenous Peoples: Intellectual Property Disputes in the Context of Traditional Knowledge, Traditional Cultural Expressions and Genetic resources,' (Lund University, April 2015), available at [https://www.law.lu.se/webuk.nsf/%28MenuItemById%29/JAMR32exam/\\$FILE/Alternative%20Dispute%20Resolution%20and%20Indigenous%20Peoples.%20Intellectual%20Property%20Disputes%20in%20the%20Context%20of%20Traditional%20Knowledg.pdf](https://www.law.lu.se/webuk.nsf/%28MenuItemById%29/JAMR32exam/$FILE/Alternative%20Dispute%20Resolution%20and%20Indigenous%20Peoples.%20Intellectual%20Property%20Disputes%20in%20the%20Context%20of%20Traditional%20Knowledg.pdf) [Accessed on 08/01/2016].
- Roberts E. & Dobbins J., 'The Role of the Citizen in Environmental Enforcement,' (Environmental Law Institute. 1616 P Street. N.W. Washington. DC 20036, USA). Available at <http://www.inece.org/2ndvol1/roberts.htm> [Accessed on 21/07/2016].
- Rummel, R.J., 'Principles of Conflict Resolution,' Chapter 10, *Understanding Conflict and war: Vol. 5: The Just Peace*.
- Sang J.K., Case study 3-Kenya: The Ogiek in Mau Forest, April 2001. Available at <http://www.forestpeoples.org/sites/fpp/files/publication/2010/10/kenyaeng.pdf> [Accessed on 19/01/2016].
- Schwass, R.D., Introduction to Sustainable Development – *World Conservation Strategy of the International Union for the Conservation of Nature and Natural Resources (IUCN)*, (UNESCO – Encyclopedia of Life Support Systems (EOLSS)). Available at <http://www.eolss.net/sample-chapters/c13/e1-45-02-05.pdf> [Accessed on 25/08/2016].
- Scottish Executive Social Research, *Sustainable Development: A Review of International Literature*, (Scottish Executive Social Research, 2006). Available at <http://www.gov.scot/resource/doc/123822/0029776.pdf> [Accessed on 15/08/2016].
- Shackelton, S. & Campbell, B. (eds), 'Empowering Communities to Manage Natural Resources: Case Studies from Southern Africa,' Center for International Forestry Research, March 2000. Available at [http://www.cifor.org/publications/pdf\\_files/Books/Empowering.pdf](http://www.cifor.org/publications/pdf_files/Books/Empowering.pdf) [Accessed on 20/07/2016].
- Shell Livewire, "Elements of Sustainable Development: Environment, Society and Economy," available at

## Nurturing Our Environment for Sustainable Development

- <http://shell-livewire.org/business-library/employing-people/management/sustainable-development/Sustainable-development/> [Accessed on 3/04/2015].
- Shelton, D., 'Human Rights, Health and Environmental Protection: Linkages in Law and Practice: A Background Paper for the WHO.' Available at [http://www.who.int/hhr/information/Human\\_Rights\\_Health\\_and\\_Environmental\\_Protection.pdf](http://www.who.int/hhr/information/Human_Rights_Health_and_Environmental_Protection.pdf) [Accessed on 20/07/2016].
- Smith, M. K. & Doyle M. 'Globalization' *the encyclopedia of informal education* (2002), Available at [www.infed.org/biblio/globalization.htm](http://www.infed.org/biblio/globalization.htm) [Accessed on 24/02/2014].
- Stock, A., 'The Right to a Healthy Environment: How to use international legal mechanism for the protection of our environment and our health – A Manual,' (Women in Europe for a Common Future, Utrecht/Munich, September 2007).
- Stoddart, H., et al, 'Principles for the Green Economy: A collection of principles for the green economy in the context of sustainable development and poverty eradication,' Earth summit 2012 Stakeholder Forum (IUCN, 2012). Available at [https://www.iucn.org/sites/dev/files/import/downloads/green\\_econ\\_principles.pdf](https://www.iucn.org/sites/dev/files/import/downloads/green_econ_principles.pdf) [Accessed on 11/09/2016].
- Strickland, R. & Duvvury, N, "Gender Equity and Peacebuilding," *From Rhetoric to Reality: Finding the Way*, International Center for Research on Women Discussion Paper, 2003. Prepared for the Gender Equity and Peacebuilding Workshop with a grant from the International Development Research Centre (IDRC), Ottawa, Canada. Available at <http://www.icrw.org/files/publications/Gender-Equity-and-Peacebuilding-From-Rhetoric-to-Reality.pdf> [Accessed on 16/05/2015].
- Sundoy D., A Continent in Crisis: Africa and Globalization, *Third World Traveller, Dollars and Sense magazine*, July/August 2001, available at
- Sunstein, C.R., 'Beyond the Precautionary Principle,' University of Chicago Public Law and Legal Theory Working Paper No. 38, January 2003. Available at [http://www.law.uchicago.edu/files/files/38.crs\\_.precautionary.pl-lt.pdf](http://www.law.uchicago.edu/files/files/38.crs_.precautionary.pl-lt.pdf) [Accessed on 27/06/2016].
- Sustainable Stock Exchanges (SSE) Initiative, 'About the Sustainable Stock Exchanges (SSE) initiative,' available at <http://www.sseinitiative.org/about/> [Accessed on 13/09/2016].
- Swedish International Agricultural Network Initiative, 'Kenya Agricultural Carbon Project (KACP): Features and lessons learned,' available at <http://www.siani.se/sv/node/7399> [Accessed on 04/08/2016].
- Swiderska, K., et. al., 'Protecting Community Rights over Traditional Knowledge: Implications of Customary Laws and Practices,' Interim Report (2005-2006), November 2006. Available at <http://pubs.iied.org/pdfs/G01253.pdf> [Accessed on 10/04/2016].
- Ten B.P., et al, *Nature and its Role in the Transition to a Green Economy*, (United Nations Environment Programme, 2012). Available at <http://www.teebweb.org/wp-content/uploads/2013/04/Nature-Green-Economy-Full-Report.pdf> [Accessed on 11/09/2016].
- The Ministry Of Water and Irrigation, 'Indigenous Knowledge to Tackle Climate Change,' available at <http://www.environment.go.ke/?p=1479> [Accessed on 25/10/2015].
- The Norwegian Nobel Institute, 'Wangari Maathai: The Nobel Lecture (Oslo, December 10, 2004),' available at [http://nobelpeaceprize.org/en\\_GB/laureates/laureates-2004/maathai-lecture/](http://nobelpeaceprize.org/en_GB/laureates/laureates-2004/maathai-lecture/) [Accessed on 16/07/2016].
- The REDD Desk, *REDD in Kenya*, available at <http://theredddesk.org/countries/kenya> [Accessed on 28/07/2016]
- The World Bank, 'Strategic Environmental Assessment,' September 10, 2013. Available at

## Nurturing Our Environment for Sustainable Development

- <http://www.worldbank.org/en/topic/environment/brief/strategicenvironmental-assessment> [Accessed on 26/10/2015].
- The World Bank, 'What Is Development?' pp. 7-10. Available at [http://www.worldbank.org/depweb/beyond/beyondco/beg\\_01.pdf](http://www.worldbank.org/depweb/beyond/beyondco/beg_01.pdf) [Accessed on 02/09/2016].
- Theories of Economic Development*. Available at [www.springer.com/cda/content/document/cda\\_downloaddocument/9789812872470-c2.pdf?SGWID=0-0-45-1483317-p177033406](http://www.springer.com/cda/content/document/cda_downloaddocument/9789812872470-c2.pdf?SGWID=0-0-45-1483317-p177033406) [Accessed on 02/09/2016].
- Timbur, M. & Pralea, S., 'International Trade – Environment' Relationship in the Context of Sustainable Development,' CES Working Papers.
- Toepfer, K., "Forward", in Schwartz, D. & Singh, A., *Environmental conditions, resources and conflicts: An introductory overview and data collection* (UNEP, New York, 1999).
- Trade Policymaking and the Sustainable Development*, Trading into Sustainable Development: Trade, Market Access, and the Sustainable Development Goals, Chapter I (United Nations, 2016).
- Traore, S. & Lo, H., 'Natural Resource Conflicts and Community Forestry: A West African Perspective,' in FAO, *Annex C - Summary of Discussion Papers*, available at <http://www.fao.org/docrep/005/ac697e/ac697e13.htm#TopOfPage> [Accessed on 2/01/2016].
- Tyler, S. (ed), *Communities, Livelihoods, and Natural Resources: Action Research and Policy Change in Asia*, (International Development Research Centre, 2006). Available at <http://www.idrc.ca/EN/Resources/Publications/openebooks/230-9/index.html> [Accessed on 17/01/2016].
- Tyler, S.R., 'Policy Implications of Natural Resource Conflict Management.' Available at <http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan022237.pdf> [Accessed on 10/01/2016].
- Tyler, S.R., 'Policy Implications of Natural Resource Conflict Management,' 2006, available at <http://www.idrc.ca/> [Accessed on 27/06/2016].
- UNCTAD, 'Trade and Environment in the Multilateral Trading System,' Module 2, *Trade for Trade 2000*. Available at <http://www.oas.org/dsd/Toolkit/Documentos/ModuleIII/doc/Trade%20and%20Environment%20in%20the%20Multilateral%20Trading%20System.pdf> [Accessed on 08/09/2016].
- UNCTAD, 'Trade, Environment, Climate Change and Sustainable Development,' available at <http://unctad.org/en/Pages/DITC/Trade-and-Environment.aspx> [Accessed on 9/09/2016].
- UNCTAD, 'UNCTAD Annual Report 2015: Delivering On A Sustainable Agenda,' (UNCTAD, Geneva, 2015). Available at [http://unctad.org/en/PublicationsLibrary/dom2016d1ipub\\_en.pdf](http://unctad.org/en/PublicationsLibrary/dom2016d1ipub_en.pdf) [Accessed on 10/09/2016].
- UNCTAD, *Training Manual on Developing Joint BioTrade and REDD+ Projects*, UNCTAD/DITC/TED/2015/1. Available at <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1558> [Accessed on 10/09/2016].
- UNEP, 'Green Economy: Pathways to Sustainable Development and Poverty Reduction,' (United Nations Environment Programme, 2011). Available at [http://web.unep.org/greeneconomy/sites/unep.org.greeneconomy/files/field/image/green\\_economyreport\\_final\\_dec2011.pdf](http://web.unep.org/greeneconomy/sites/unep.org.greeneconomy/files/field/image/green_economyreport_final_dec2011.pdf) [Accessed on 11/09/2016].
- UNEP, 'What is an "Inclusive Green Economy"?' UNEP's Green Economy Initiative (GEI), available at <http://web.unep.org/greeneconomy/what-inclusive-green-economy> [Accessed on 11/09/2016].
- UNESCO, "Gender Equality and Equity," A summary review of UNESCO's accomplishments since the Fourth World Conference on Women (Beijing 1995), May, 2000. Available at <http://unesdoc.unesco.org/images/0012/001211/121145e.pdf> [Accessed on 19/05/2015].
- UNESCO-IHP, "Alternative Dispute Resolution Approaches and Their Application in Water Management: A Focus On Negotiation, Mediation And Consensus Building" Abridged version of Yona Shamir, *Alternative Dispute Resolution Approaches and their Application*, Accessible at

## Nurturing Our Environment for Sustainable Development

- <http://unesdoc.unesco.org/images/0013/001332/133287e.pdf> [Accessed on 19/01/2016].
- UNICEF, “Promoting Gender Equality: An Equity-Focused Approach to Programming,” *Operational Guidance Overview*. Available at [http://www.unicef.org/gender/files/Overarching\\_Layou](http://www.unicef.org/gender/files/Overarching_Layou) Measuring Human and Sustainable Development: an integrated *t\_Web.pdf* [Accessed on 03/04/2015].
- United Nations Conference on Sustainable Development, available at <http://www.uncsd2012.org/about.html> [Accessed on 17/05/2015].
- United Nations Department of Economic and Social Affairs (UNDESA), ‘A guidebook to the Green Economy, Issue 1: Green Economy, Green Growth, and Low-Carbon Development - history, definitions and a guide to recent publications,’ UN-DESA, August 2012. Available at <http://www.uncsd2012.org/index.php?page=view&type=400&nr=528&menu=45> [Accessed on 24/10/2015].
- United Nations Department of Economic and Social Affairs, ‘United Nations Conference on Sustainable Development, Rio+20.’ Available at <https://sustainabledevelopment.un.org/rio20> [Accessed on 24/10/2015].
- United Nations Department of Economic and Social Affairs, “Sustainable development goals,” available at <https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals> [Accessed on 20/05/2015].
- United Nations Development Programme, ‘Sustainable Development Goals (SDGs),’ available at <http://www.undp.org/content/undp/en/home/mdgoverview/post-2015-development-agenda.html>[Accessed on 24/10/2015].
- United Nations Development Programme, *Decentralized Governance of Natural Resources*, available at <http://web.undp.org/drylands/decentralized-governance.html> [Accessed on 14/07/2016].
- United Nations Development Programme, et al, ‘Informal Justice Systems: Charting A Course For Human Rights-Based Engagement,’ 2012.
- United Nations Development Programme, *The Millennium Development Goals: Eight Goals for 2015*, available at <http://www.undp.org/content/undp/en/home/mdgoverview.html> [Accessed on 18/07/2014].
- United Nations Division for Sustainable Development, UNDESA, A Guidebook to the Green Economy- Issue 2: exploring green economy principles, available at [https://sustainabledevelopment.un.org/content/documents/743GE%20Guidebook%202%20-%20Principles\\_final.pdf](https://sustainabledevelopment.un.org/content/documents/743GE%20Guidebook%202%20-%20Principles_final.pdf) [Accessed on 11/09/2016].
- United Nations Economic Commission for Africa, ‘An Assessment of Agricultural Sector Policies and Climate Change in Kenya: Nexus between Climate Change Related Policies, Research and Practice,’ Final Report, December, 2013. Available at [http://www.climdevafrica.org/sites/default/files/DocumentAttachments/ACPC\\_KIPPRA\\_Kenya\\_Policy\\_Research\\_Practice%20%26%20Climate%20Change\\_12.12.2013\\_Final.pdf](http://www.climdevafrica.org/sites/default/files/DocumentAttachments/ACPC_KIPPRA_Kenya_Policy_Research_Practice%20%26%20Climate%20Change_12.12.2013_Final.pdf) [Accessed on 17/07/2014].
- United Nations Economic Commission for Africa, ‘Assessing Progress in Africa toward the Millennium Development Goals’, *Food security in Africa: Issues, challenges and lessons*, MDG Report 2013, available at [http://www.undp.org/content/dam/undp/library/MDG/english/MDG%20Regional%20Reports/Africa/MDG%20Report2013\\_ENG\\_Fin\\_12June.pdf](http://www.undp.org/content/dam/undp/library/MDG/english/MDG%20Regional%20Reports/Africa/MDG%20Report2013_ENG_Fin_12June.pdf) [Accessed on 18/07/2014].
- United Nations Environment Programme, ‘Green Economy: Feed-in tariffs in Kenya.’ Available at <http://www.unep.org/greeneconomy/SuccessStories/FeedintariffsinKenya/tabid/29864/Default.aspx> [Accessed on 01/09/2016].
- United Nations Environmental Programme, “Human Health and the Environment,” *UNEP Post 2015 Note No. 3*, available at <http://www.unep.org/roap/Portals/96/UNEP-Post-2015-Note-3.pdf> [Accessed on 2/09/2015].

## Nurturing Our Environment for Sustainable Development

- United Nations Non-Governmental Liaison Service, *Human Rights Approaches to Sustainable Development*, NGLS Roundup 90, May 2002. Available at <http://www.un-ngls.org/orf/pdf/ru90hrsd.pdf> [Accessed on 28/08/2015].
- United Nations, ‘What We Do: Promote Sustainable Development,’ available at <http://www.un.org/en/sections/what-we-do/promote-sustainable-development/index.html> [Accessed on 4/09/2016].
- United Nations, “Open Working Group proposal for Sustainable Development Goals,” available at <https://sustainabledevelopment.un.org/sdgsproposal> [Accessed on 15/04/2015].
- United Nations, “The Role of Men and Boys in Achieving Gender Equality,” *Women 2000 and Beyond*, December 2008. Available at <http://www.unwomen.org/~media/headquarters/media/publications/un/en/w2000menandboysweb.pdf> [Accessed on 03/04/2015].
- United Nations, *Environmental Impact Assessment and Strategic Environmental Assessment: Towards an Integrated Approach*, (UNEP, 2004). Available at <http://www.unep.ch/etu/publications/textONUbr.pdf> [Accessed on 10/02/2016].
- United Nations, *Environmental Law Guidelines and Principles on Shared Natural Resources*. Available at [http://www.unep.org/training/programmes/Instructor%20Version/Part\\_2/Activities/Interest\\_Groups/DecisionMaking/Supplemental/Enviro\\_Law\\_Guidelines\\_Principles\\_rev2.pdf](http://www.unep.org/training/programmes/Instructor%20Version/Part_2/Activities/Interest_Groups/DecisionMaking/Supplemental/Enviro_Law_Guidelines_Principles_rev2.pdf) [Accessed on 27/06/2016].
- United Nations, *UNDP Human Development Report 2013 & Alkire and Conconi Report 2013*, available at <http://sustainabledevelopment.un.org/content/documents/3528alkire.pdf> [Accessed on 10th January 2014].
- United Nations, World Summit on Social Development, Copenhagen 1995: A Brief Description, *Gateway to Social Policy and Development*, Available at <http://www.un.org/esa/socdev/wssd.htm> [Accessed on 15/02/2014].
- United States Environmental Protection Agency, ‘Environmental Justice Analysis’, available at <http://www.epa.gov/sustainability/analytics/environmental-justice.htm> [Accessed on 12/09/2016].
- United States Environmental Protection Agency, ‘What is Environmental Education?’ available at <http://www2.epa.gov/education/what-environmental-education> [Accessed on 12/09/2016].
- Utne, B.B., ‘Indigenous conflict resolution in Africa,’ p. 8, *A draft presented to the week-end seminar on indigenous solutions to conflicts held at the University of Oslo, Institute for Educational Research 23 – 24 of February 2001*. Available at [http://www.africavenir.org/fileadmin/\\_migrated/content\\_uploads/BrockUtneTradConflictResolution\\_06.pdf](http://www.africavenir.org/fileadmin/_migrated/content_uploads/BrockUtneTradConflictResolution_06.pdf) [Accessed on 12/04/2016].
- Veit-Wilson, J., *Poverty*, John Veit-Wilson’s Papers on Concepts, Definitions and Measures of Poverty, On Income Adequacy and on Minimum Income Standards, *Routledge International Encyclopaedia of Social Policy* (2006). Available at <http://www.staff.ncl.ac.uk/j.veit-wilson/documents/povertyriesp.pdf> [Accessed on 15/02/2014].
- Voigt, C., Principles in IEL, *International Environmental Law*. Available at <http://www.uio.no/studier/emner/jus/jus/JUS5520/h12/undervisningsmateriale/3.-principles-in-iel.pdf> [Accessed on 22 February, 2014].
- Waithaka, M., et. al. (eds), Chapter 7: ‘East African Agriculture and Climate Change: A Comprehensive Analysis’, (International Food Policy Research Institute, Washington, DC, 2013). Available at <http://www.ifpri.org/sites/default/files/publications/rr181ch07.pdf> [Accessed on 17/07/2014].
- Warner, M., ‘Conflict Management in Community-Based Natural Resource Projects: Experiences from Fiji and Papua New Guinea,’ *Working Paper No. 135*, (Overseas Development Institute, April, 2000).



## Nurturing Our Environment for Sustainable Development

- Wehrmann, B. (ed), 'Land Use Planning: Concept, Tools and Applications,' (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Eschborn, 2012). Available at <https://www.giz.de/fachexpertise/downloads/Fachexpertise/giz2012-en-land-use-planning-manual.pdf> [Accessed on 27/07/2016].
- Wepundi, M., et al, "Availability of Small Arms and Perceptions of Security in Kenya: An Assessment," Special Report, June 2012, (Small Arms Survey, Graduate Institute of International and Development Studies, Geneva, 2012). Available at <http://www.smallarmssurvey.org/fileadmin/docs/C-Special-reports/SAS-SR16-Kenya.pdf> [Accessed on 13/10/2015].
- Wilson, C. & Tisdell, C., 'Conflicts over Natural Resources and the Environment: Economics and Security,' *Working Papers on Economics, Ecology and the Environment, Working Paper No. 86*, September 2003.
- Woodcraft, S., et. al., 'Design for Social Sustainability: A framework for creating thriving new communities', Social Life, 2012. Available at [http://www.futurecommunities.net/files/images/Design\\_for\\_Social\\_Sustainability\\_0.pdf](http://www.futurecommunities.net/files/images/Design_for_Social_Sustainability_0.pdf) [Accessed on 12/09/2016].
- Working Group III (WGIII) of the Intergovernmental Panel on Climate Change (IPCC), 'Setting the Stage: Climate Change and Sustainable Development,' (IPCC, 2001). Available at <http://www.ipcc.ch/ipccreports/tar/wg3/index.php?idp=60> [Accessed on 25/08/2016].
- World Bank Group, BioCarbon Fund Initiative for Sustainable Forest Landscapes, available at [http://www.worldbank.org/content/dam/Worldbank/document/SDN/BioCF\\_ISFL\\_Flyer.pdf](http://www.worldbank.org/content/dam/Worldbank/document/SDN/BioCF_ISFL_Flyer.pdf) [Accessed on 04/08/2016].
- World Bank, 'Kenyans Earn First Ever Carbon Credits From Sustainable Farming,' *Press Release January 21, 2014*, available at <http://www.worldbank.org/en/news/press-release/2014/01/21/kenyans-earn-first-ever-carbon-credits-from-sustainable-farming> [Accessed on 24/05/2016].
- World Bank, *Economic Survey for Sub-Saharan Africa, 2013*, Africa Pulse October, 2013 Vol.8. Available at [http://www.worldbank.org/content/dam/Worldbank/document/Africa/Report/Africas-Pulse-brochure\\_Vol8.pdf](http://www.worldbank.org/content/dam/Worldbank/document/Africa/Report/Africas-Pulse-brochure_Vol8.pdf) [Accessed on 8/01/ 2014].
- World Bank, *Handbook on Measuring Poverty*, Chapter 2. Available at [http://siteresources.worldbank.org/INTPA/Resources/4299661259774805724/Poverty\\_Inequality\\_Handbook\\_Ch02.pdf](http://siteresources.worldbank.org/INTPA/Resources/4299661259774805724/Poverty_Inequality_Handbook_Ch02.pdf) [Accessed on 15th February, 2014].
- World Commission on the Ethics of Scientific Knowledge and Technology (COMEST), *The Precautionary Principle*, (United Nations Educational, Scientific and Cultural Organization, Paris, 2005), available at <http://www.eubios.info/UNESCO/precprin.pdf> [Accessed on 27/08/2016].
- World Health Organisation, 'Trade, foreign policy, diplomacy and health', *Food Security*, available at <http://www.who.int/trade/glossary/story028/en/> [Accessed on 17/07/2014].
- World Health Organization, *Human health under threat from ecosystem degradation, 9 December 2005*, available at <http://www.who.int/mediacentre/news/releases/2005/pr67/en/> [Accessed on 1/09/2015].
- World Intellectual Property Organisation, 'Traditional Knowledge,' available at <http://www.wipo.int/tk/en/tk/> [Accessed on 27/06/2016].
- World Resources Institute, 'Atlas of Forest and Landscape Restoration Opportunities,' available at <http://www.wri.org/resources/maps/atlas-forest-and-landscape-restoration-opportunities> [Accessed on 13/07/2016].
- World Resources, 'Natural Resources of Africa.' Available at [www.worldresources.envi.org/natural-rsources-africa/](http://www.worldresources.envi.org/natural-rsources-africa/) [Accessed on 7/01/ 2014].
- World Trade Organisation, 'Environmental disputes in GATT/WTO,' available at [http://www.wto.org/english/tratop\\_e/envir\\_e/edis00\\_e.htm](http://www.wto.org/english/tratop_e/envir_e/edis00_e.htm) [Accessed on 27/06/2016].

## Nurturing Our Environment for Sustainable Development

- World Trade Organisation, 'Harnessing Trade for Sustainable Development and a Green Economy.' Available at [https://www.wto.org/english/res\\_e/publications\\_e/rio20\\_e.htm](https://www.wto.org/english/res_e/publications_e/rio20_e.htm) [Accessed on 03/09/2016].
- World Trade Organisation, 'Harnessing Trade for Sustainable Development and a Green Economy' (World Trade Organization) 2012.
- World Trade Organisation, 'Uruguay Round Agreement General Agreement on Tariffs and Trade 1994,' available at [https://www.wto.org/english/docs\\_e/legal\\_e/06-gatt\\_e.htm](https://www.wto.org/english/docs_e/legal_e/06-gatt_e.htm) [Accessed on 27/06/2016].
- World Trade Organization, 'Trade and environment.' Available at [https://www.wto.org/english/tratop\\_e/envir\\_e/envir\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/envir_e.htm) [Accessed on 07/09/2016].
- Yamano, T, et al, 'Land Conflicts in Kenya: Causes, Impacts, and Resolutions,' *FASID Discussion Paper 2005-12-002*, available at [www3.grips.ac.jp/~yamanota/Land Conflicts in Kenya \(FASID DP\).pdf](http://www3.grips.ac.jp/~yamanota/Land_Conflicts_in_Kenya_(FASID_DP).pdf) [Accessed on 17/01/2016].
- Yang, T., 'Towards an Egalitarian Global Environmental Ethics,' *Environmental Ethics and International Policy*, (ISBN 978-92-3-104039-9, UNESCO, 2006). Available at <http://publishing.unesco.org/chapters/978-92-3-104039-9.pdf> [Accessed on 11/09/2016].

### List of Statutes and Official Documents

1. Access to Information Act, 2016, Laws of Kenya (Government Printer, Nairobi, 2016)
2. Civil Procedure Act, Cap 21, Laws of Kenya (Government Printer, Nairobi)
3. Climate Change Act, No. 11 of 2016, Laws of Kenya (Government Printer, Nairobi, 2016)
4. Community Land Act, No. 27 of 2016, Laws of Kenya (Government Printer, Nairobi, 2016)
5. Constitution of 2008, Republic of Ecuador
6. Constitution of Kenya, 2010 (Government Printer, Nairobi, 2010)
7. Constitution of Rwanda, 2003
8. Constitution of the Democratic Republic of the Congo, 2005
9. Constitution of the Republic of South Africa, 1996
10. Constitution of the Republic of Uganda, 1995
11. Energy Act, No. 12 of 2006, Laws of Kenya, Revised Edition 2012 [2006] (Government Printer, Nairobi, 2006)
12. Energy Bill, 2015 (Government Printer, Nairobi, 2015)
13. Environment and Land Court Act, No 19 of 2011, Laws of Kenya (Government Printer, Nairobi, 2011)
14. Environmental (Impact Assessment and Audit) Regulations, 2003, Legal Notice 101 of 2003, Laws of Kenya (Government Printer, Nairobi, 2003)
15. Environmental Management and Coordination (Amendment) Act, No. 5 of 2015, Laws of Kenya (Government Printer, Nairobi, 2015)
16. Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulation, 2009, Legal Notice No. 61 of 2009, Laws of Kenya (Government Printer, Nairobi, 2009)
17. Environmental Management and Coordination Act (EMCA), Act No. 8 of 1999, Laws of Kenya (Government Printer, Nairobi)
18. Fair Administrative Action Act, No. 4 of 2015, Laws of Kenya (Government Printer, Nairobi, 2015)
19. Forest Act, No. 7 of 2005, Laws of Kenya (Government Printer, Nairobi, 2005) (Repealed)
20. Forest Conservation and Management Act, No. 34 of 2016, (Government Printer, Nairobi, 2016)
21. Kenya Agricultural and Livestock Research Act, No. of 2013, Laws of Kenya (Government Printer, Nairobi, 2013)

## Nurturing Our Environment for Sustainable Development

22. Land Adjudication Act, Cap. 284, Laws of Kenya [Revised Edition 2015 [2012] (Government Printer, Nairobi)
23. Land Control Act, Cap 302, Laws of Kenya [Revised Edition 2012 [2010] (Government Printer, Nairobi)
24. Legal Notice 160 of 2006 on the Environmental Management and Co-Ordination (Conservation of Biological Diversity and Resources, Access to Genetic Resources and Benefit Sharing) Regulations, 2006, Laws of Kenya (Government Printer, Nairobi, 2006)
25. Legal Notice No. 197 of 2015, Kenya Gazette Supplement No. 170, 9<sup>th</sup> October, 2015, pp. 1283-1291 (Government Printer, Nairobi, 2015)
26. Legal Notice No. 21 of the Public Finance Management Act, 2014, Laws of Kenya (Government printer, Nairobi, 2014)
27. Mediation (Pilot Project) Rules, 2015 (Government Printer, Nairobi, 2015)
28. National Cohesion and Integration Act, 2008, No. 12 of 2008, Revised Edition 2012 [2008], Laws of Kenya (Government Printer, Nairobi)
29. National Drought Management Authority (NDMA) Act, No. 4 of 2016, Laws of Kenya (Government Printer, Nairobi, 2016)
30. National Gender and Equality Commission Act, No. 15 of 2011, Laws of Kenya
31. National Green Tribunal Act 2010, No. 19 of 2010, Laws of India
32. Natural Resources (Benefit Sharing Bill) 2015 (Government Printer, Nairobi, 2015)
33. Protection of Traditional Knowledge and Traditional Cultural Expressions Act, Act No. 33 of 2016, (Government Printer, Nairobi, 2016)
34. Public Procurement Oversight Authority, Treasury Circular No. 14 of 2013, Presidential Directive: - 30 Percent of All Government procurement be allocated to the Youth, Women and Persons with Disabilities, September 2013 (Government printer, Nairobi, 2013)
35. Republic of Kenya, Draft National Forest Policy, 2015, (Government Printer, Nairobi, 2015)
36. Republic of Kenya, Draft National Land Use Policy 2016 (Government Printer, Nairobi, 2015)
37. Republic of Kenya, Draft National Policy for the Sustainable Development of Northern Kenya and other Arid Lands 2015: Unlocking Our Full Potential for Realization of the Kenya Vision 2030, (Government Printer, Nairobi, July 2015)
38. Republic of Kenya, Executive Order No 2 of 2013 on the Organization of Government of Kenya, (Government Printer, Nairobi, 2013)
39. Republic of Kenya, Kenya Green Economy Strategy and Implementation Plan (GESIP), Maanzoni-1 Draft, May 2015 (Government Printer, Nairobi, 2015)
40. Republic of Kenya, National Climate Change Response Strategy 2010, (Government of Kenya, Nairobi, 2010)
41. Republic of Kenya, National Environment Policy 2013, (Government Printer, Nairobi, 2013)
42. Republic of Kenya, National Land Reclamation Policy, February 2013 (Government Printer, Nairobi, 2013)
43. Republic of Kenya, *Ministry of Devolution and Planning Strategic Plan 2013/14-2017/18*, (Government Printer, 2014, Nairobi)
44. Republic of Kenya, National Policy on Traditional Knowledge, Genetic Resources and Traditional Cultural Expressions, 2009, (Government printer, Nairobi, 2009)
45. Republic of Kenya, National Wildlife Conservation and Management Policy, 2012, (Government Printer, Nairobi, 2012)
46. Republic of Kenya, *Report of the Judicial Commission Appointed to Inquire into Tribal Clashes in Kenya*, 31st July, 1999 (Government Printer Nairobi, 1999)
47. Republic of Kenya, *Report on the Commission of Inquiry into Land Law Systems in Kenya on Principles of a National Land Policy Framework, Constitutional Position of Land and New Institutional Framework for Land Administration* (Government Printer Nairobi, 2002)
48. Republic of Kenya, Sessional paper No. 10 of 2012 On Kenya Vision 2030, (Government Printer, 2012)

## Nurturing Our Environment for Sustainable Development

49. Statute Law (Miscellaneous Amendments) Act, No. 17 of 2012, pp.1092-1097, (Government Printer, Nairobi, 2012)
50. Treaty Making and Ratification Act, No. 45 of 2012, Laws of Kenya
51. Wildlife Conservation and Management Act, No. 47 of 2013, Laws of Kenya (Government Printer, Nairobi, 2013).

### List of Conventions, Agreements and other International Instruments

1. African Regional Intellectual Property Organization (ARIPO), *Swakopmund Protocol on the Protection of Traditional Knowledge and Expressions of Folklore*, Adopted by the Diplomatic Conference of ARIPO at Swakopmund (Namibia) on August 9, 2010.
2. African Union, *Abuja Declaration on Participatory Development: The Role of Women in Africa in the 1990*, United Nations Economic Commission for Africa. Adopted by the African Regional Conference on the Integration of Women in Development, Abuja, Nigeria, 6-10 November 1990 (4th meeting).
3. African Union, *African [Banjul] Charter on Human and Peoples' Rights*, adopted June 27, 1981, OAU Doc. CAB/LEG/67/3 rev. 5, 21 I.L.M. 58 (1982), entered into force Oct. 21, 1986.
4. African Union, *African Convention on the Conservation of Nature and Natural Resources*, OAU, 1001 UNTS 3.
5. African Union, *Declaration on Gender Equality in Africa* Adopted at the Third Ordinary Session of AU Assembly in Addis Ababa, Ethiopia, from 6-8 July 2004.
6. African Union, *Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa*, 11 July 2003
7. African Union, *The Ngorongoro Declaration on Safeguarding African World Heritage as a Driver of Sustainable Development*, adopted in Ngorongoro, Tanzania on 4 June 2016
8. *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, Basel, 22 March 1989, 1673 UNTS 126; 28 ILM 657 (1989)
9. Council of Europe, *European Convention for the Protection of Human Rights and Fundamental Freedoms, as amended by Protocols Nos. 11 and 14*, 4 November 1950, ETS 5
10. Council Regulation (EEC) No. 1872/84 on Action by the Community Relating to the Environment, OJL 176 (1984) 1
11. East African Community (EAC), *Climate Change Policy*, EAC Secretariat, Arusha, Tanzania, April 2011
12. East African Community, *East African Community Protocol on Environment and Natural Resources Management*, 2005
13. East African Community, *The Treaty for the Establishment of the East African Community*, Arusha, EAC: 2002 xiv, 111p: 230mm (EAC Publication, No.1) ISBN: 9987 - 666-01-9 (amended 2006)
14. Economic and Social Development at the United Nations, World Summit for Social Development, Copenhagen, 1995.
15. ECOSOC, Draft Principles on Human Rights and The Environment, E/CN.4/Sub.2/1994/9, Annex I (1994).
16. European Union, *Protocol (No 2) on the application of the principles of subsidiarity and proportionality*, annexed to the Treaty on European Union and the Treaty on the Functioning of the European Union by the Treaty of Lisbon of 13 December, 2007
17. European Union, *Treaty on European Union (Consolidated Version)*, *Treaty of Maastricht* , 7 February 1992, Official Journal of the European Communities C 325/5; 24 December 2002
18. FAO, 'Promoting decent employment in forestry for improved nutrition and food security,' *Background paper for the International Conference on Forests for Food Security and Nutrition*, FAO, Rome, 13–15 May, 2013

## Nurturing Our Environment for Sustainable Development

19. FAO, World Food Summit: The Rome Declaration and Plan of Action, Rome, 13-17 November 1996
20. Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific, 'A regional rice strategy for sustainable food security in Asia and the Pacific', *RAP Publication 2014/05*, Final edition, 2014
21. International Union for Conservation of Nature and Natural Resources Environmental Policy and Law, *Draft of the Joint Working Group convened by the Commission on Environmental Law (CEL) of the World Conservation Union (IUCN) and the International Council on Environmental Law (ICEL)*, 1991
22. OECD Guiding Principles on the International Economic Aspects of Environmental Policies, OECD, 1972, C (72)128
23. OECD, *Environmental Principles and Concepts*, (Organisation For Economic Co-Operation And Development, Paris, 1995), OCDE/GD (95)124
24. OECD, *Recommendation of the Council concerning the Application of the Polluter-Pays Principle to Accidental Pollution*, 7 July 1989 - C (89)88/FINAL
25. Ramsar Convention Secretariat, *The Ramsar Convention Manual: a guide to the Convention on Wetlands* (Ramsar, Iran, 1971), 6th ed. Ramsar Convention Secretariat, Gland, Switzerland, 2013.
26. Rondinelli, D.A. (ed.), 'Public Administration And Democratic Governance: Governments Serving Citizens,' *7th Global Forum on Reinventing Government Building Trust in Government* 26-29 June 2007, Vienna, Austria, (United Nations, ST/ESA/PAD/SER.E/, United States of America, 2006)
27. *The Bali Principles of Climate Justice of 2002* (Bali Principles)
28. UN Commission on Human Rights, *Human rights and the environment.*, 5 March 1991, E/CN.4/RES/1991/44
29. UN Commission on Human Rights, *Movement and dumping of toxic and dangerous products and wastes.*, 5 March 1991, E/CN.4/RES/1991/47
30. UN Committee on Economic, Social and Cultural Rights (CESCR), *General Comment No. 12: The Right to Adequate Food (Article 11 of the Covenant)*, 12 May 1999, Adopted at the Twentieth Session of the Committee on Economic, Social and Cultural Rights, on 12 May 1999 (Contained in Document E/C.12/1999/5)
31. UN Educational, Scientific and Cultural Organisation (UNESCO), *Preliminary Draft Convention on the Protection and Promotion of the Diversity of Cultural Expressions*, 20 October 2005, 33 C/23; Annex V, Passed by the General Conference of the United Nations Educational, Scientific and Cultural Organization, meeting in Paris from 3 to 21 October 2005 at its 33rd session
32. UN General Assembly, *Convention on the Elimination of All Forms of Discrimination Against Women*, 18 December 1979, United Nations, Treaty Series, vol. 1249, p. 13.
33. UN General Assembly, *Convention on the Rights of the Child*, 20 November 1989, United Nations, Treaty Series, vol. 1577, p. 3
34. UN General Assembly, *International Covenant on Civil and Political Rights*, 16 December 1966, United Nations, Treaty Series, vol. 999, p. 171
35. UN General Assembly, *International Covenant on Economic, Social and Cultural Rights*; adopted 16 Dec. 1966, 993 U.N.T.S. 3, G.A. Res. 2200 (XXI), U.N. GAOR, 21st Sess., Supp. No. 16, U.N. Doc. A/6316 (1966) (entered into force 3 Jan. 1976).
36. UN General Assembly, *International Covenant on Economic, Social and Cultural Rights*, 16 December 1966, United Nations, Treaty Series, vol. 993, p. 3.
37. UN General Assembly, *Permanent sovereignty over natural resources*, Resolution 1803 (XVII) of 14 December 1962
38. UN General Assembly, *United Nations Framework Convention on Climate Change: resolution / adopted by the General Assembly*, 20 January 1994, 1771 UNTS 107; S. Treaty Doc No. 102-38; U.N. Doc. A/AC.237/18 (Part II)/Add.1; 31 ILM 849 (1992)
39. UN General Assembly, *Universal Declaration of Human Rights*, Article 12, 10 December 1948, 217 A (III)

## Nurturing Our Environment for Sustainable Development

40. UN General Assembly, *Vienna Declaration and Programme of Action*, 12 July 1993, A/CONF.157/23
41. UN General Assembly, *World Charter for Nature*, 28 October 1982, A/RES/37/7
42. UN HRC, *Report of the OHCHR on the Relationship between Climate Change and Human Rights*, UN Doc. A/HRC/10/61, 15 Jan. 2009
43. UNCCD, *The 10-year strategic plan and framework to enhance the implementation of the Convention*, UNCCD Decision 3/COP.8
44. UNCTAD, *Nairobi Maafikiano*, 'From decision to action: Moving towards an inclusive and equitable global economic environment for trade and development,' Fourteenth session Nairobi, 17–22 July 2016, TD/519/Add.2, 5 September 2016.
45. UNDESA, 'Climate Change and Sustainable Development,' United Nations Department of Economic and Social Affairs Working Paper No. 56, ST/ESA/2007/DWP/56, October 2007
46. UNESCO, 'Educating for a Sustainable Future: A Transdisciplinary Vision for Concerted Action', EPD-97/CONF.401/CLD.1. November 1997
47. United Nations, *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda)* (A/RES/69/313), Resolution adopted by the General Assembly on 27 July 2015.
48. United Nations Development Programme (UNDP), *Human Development Report 2005: International cooperation at a crossroads: Aid, trade and security in an unequal world* (New York, United Nations, 2005)
49. United Nations Economic Commission for Africa, *1990, Abuja Declaration on Participatory Development: The role of women in Africa in the 1990s*. Adopted by the Fifth Regional Conference on Women, held at Dakar from 16 to 23 November 1994, E/CN.6/1995/5/Add.2 Distr. GENERAL, 29 December 1994
50. United Nations Economic Commission for Europe, *Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters*, UN Doc. ECE/CEP/43, Adopted at the 4th UNECE Ministerial Conference, Aarhus, 25 June, 1998
51. United Nations General Assembly, "The Road to Dignity By 2030: Ending Poverty, Transforming All Lives and Protecting the Planet," *Synthesis report of the Secretary-General on the post-2015 Sustainable development agenda*. A/69/700
52. United Nations General Assembly, *Problems of the Human Environment*, UNGA Res 2398(XXII) 3 December 1968.
53. United Nations High Commissioner for Human Rights, *Principles and Guidelines for a Human Rights Approach to Poverty Reduction Strategies*, HR/PUB/06/12
54. United Nations High Commissioner for Human Rights, *Principles And Guidelines For A Human Rights Approach To Poverty Reduction Strategies*, HR/PUB/06/12
55. United Nations, "Concepts of Security," United Nations Publication, A/40/553, 1986, p. 20
56. United Nations, *African Platform for Action*, E/CN.6/1995/5/Add.2. Adopted by the Fifth Regional Conference on Women, held at Dakar from 16 to 23 November 1994
57. United Nations, *Africa's Technology Gap: Case Studies on Kenya, Ghana, Uganda and Tanzania*, United Nations Publications, July 2003, UNCTAD/ITE/IPC/Misc.13
58. United Nations, *Annex to the Nagoya Protocol on Access and Benefit-sharing*
59. United Nations, *Beijing Declaration and Platform for Action*, Fourth World Conference on Women, 15 September 1995, A/CONF.177/20 (1995) and A/CONF.177/20/Add.1 (1995)
60. United Nations, Charter of the United Nations, 24 October 1945, 1 UNTS XVI
61. United Nations, *Convention on Biological Diversity*, [1993] ATS 32 / 1760 UNTS 79 / 31 ILM 818 (1992)
62. United Nations, *Convention on the Non-Navigational Use of Watercourses*, Adopted by the General Assembly of the United Nations on 21 May 1997. Entered into force on 17 August 2014. General Assembly resolution 51/229, annex, Official Records of the General Assembly, Fifty-first Session, Supplement No. 49 (A/51/49).

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63. United Nations, Convention on Wetlands of International Importance especially as Waterfowl Habitat, 996 UNTS 245; TIAS 11084; 11 ILM 963 (1972)
64. United Nations, Declaration of the United Nations Conference on the Human Environment (*Stockholm Declaration* of 1972), U.N. Doc. A/Conf.48/14/Rev. 1(1973); 11 ILM 1416 (1972).
65. United Nations, *Declaration on the Right to Development*, A/RES/41/128.  
United Nations, *Future We Want - Outcome document*, Resolution adopted by the General Assembly on 27 July 2012[without reference to a Main Committee (A/66/L.56)], A/RES/66/288
66. United Nations, *Intergenerational Solidarity and the needs of future generations- Report of the Secretary-General*, A/68/322, Sixty-eighth session, Item 19 (a) of the provisional agenda.
67. United Nations, *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, Secretariat for the United Nations Framework Convention on Climate Change, UN Doc FCCC/CP/1997/7/Add.1, Dec. 10, 1997; 37 ILM 22 (1998)
68. United Nations, *Montreal Protocol and (London Amendment) on Substances that Deplete the Ozone layer*, 1522 UNTS 3; 26 ILM 1550 (1987)
69. United Nations, *Programme of Action for the Least Developed Countries for the Decade 2011-2020*, A/CONF.219/3, Fourth United Nations Conference on the Least Developed Countries, Istanbul, 9-13 May 2011
70. United Nations, *Report of the Conference of the Parties on its twenty-first session held in Paris from 30 November to 13 December 2015*
71. United Nations, *Report of the Fourth World Conference on Women*, Beijing, 4-15 September 1995, A/CONF.177/20/Rev.1.
72. United Nations, *The Convention on International Trade in Endangered Species of Wild Fauna and Flora* (27 UST 1087; TIAS 8249; 993 UNTS 243)
73. United Nations, *The Durban Commitment to Effective Action Against Corruption*, 1999
74. United Nations, The Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (Forest Principles) A/CONF.151/26 (Vol. III)
75. United Nations, The Rio+20 Outcome Document: *The Future We Want* (Resolution 66/288, July 2012).
76. United Nations, *Transforming our world: the 2030 Agenda for Sustainable Development*, Resolution adopted by the General Assembly on 25 September 2015, [without reference to a Main Committee (A/70/L.1)], Seventieth session, Agenda items 15 and 116, 21 October 2015.
77. United Nations, *United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa*, Ch XXVII 10 VOL-2 Chapter XXVII, Paris, 14 October 1994
78. United Nations, *United Nations Declaration on the Rights of Indigenous Peoples*, 61/295, adopted by the General Assembly on Thursday, 13 September 2007
79. United Nations, *Vienna Convention on the Law of Treaties*, 23 May 1969, United Nations, Treaty Series, vol. 1155, p. 331
80. United Nations, World Summit on Sustainable Development, *Johannesburg Declaration on Sustainable Development*, A/CONF.199/20, Annex: Plan of Implementation of the World Summit on Sustainable Development.
81. World Bank Group, *World Development Report 2012: Gender Equality and Development*. (World Bank, Washington, D.C., 2012)
82. World Bank, *Rethinking Forest Partnerships and Benefit Sharing: Insights on Factors and Context that Make Collaborative Arrangements Work for Communities and Landowners*, Report No. 51575-GLB, (The International Bank for Reconstruction and Development / The World Bank, Washington, DC, 2009)
83. World Bank, *Sustainable Development Challenges: World Economic and Social Survey 2013*, World Bank World Economy Report, E/2013/50/Rev. 1ST/ESA/344

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84. World Commission on Environment and Development, *Our Common Future*, United Nations 1987."Report of the World Commission on Environment and Development." General Assembly Resolution 42/187, 11 December 1987. A/42/427
85. World Trade Organization, *Marrakesh Agreement Establishing the World Trade Organization. Annex 1A: Multilateral Agreements on Trade in Goods-Agreement on Trade-Related Investment Measures*, The Results of the Uruguay Round of Multilateral Trade Negotiations: The Legal Texts (World Trade Organization, Geneva, 1995), pp. 163-167.