

Achieving Environmental Security in Kenya

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Achieving Environmental Security in Kenya

By Kariuki Muigua*

Abstract

The importance of the environment cannot be overstated since without the environment, there would be no survival of any human, animal or plant life. A clean and secure environment facilitates the right to life. 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. While a proper environmental security mechanism ensures that access to environmental goods and services is available to all, many Kenyans continue to remain out in the cold with no ability to benefit from the environment at the moment. Many user groups are still finding an inability to ingress environmental goods and services, facing barriers such as poor sanitation, lack of clean water, and an array of pollutants.

In this paper, the author examines the importance of environmental security as an instrument of the realisation and actualization of human and environmental rights. The discourse analyses how a secure environment can promote or guarantee the proper expression of such rights. It is argued that in the absence of environmental security, proper development cannot be sustainably achieved. Therefore, achieving environmental security both as a human right prerogative and an environmental right will ensure that a populace is able to enjoy access to environmental goods and services and in so doing, development can be adequately pursued and responsibly achieved.

1. Introduction

The importance of the environment cannot be overstated since it ensures survival of any kind of life. The enjoyment of the right to life depends on a clean and healthy environment.¹ A secure environment makes possible the exercise of the right to life certain by ensuring that any threats to life are neutralized. In this paper, the author examines the concept of environmental security as an instrument for the realisation and actualization of human and environmental rights. The approach adopted is both anthropocentric and ecocentric. The ecocentric approach to environmental security is given attention considering that it advocates for the conservation of the environment as a matter of right and not merely

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¹ See generally, A. Stock, *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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because of the benefits that accrue to the human beings.² The discourse analyses how a secure environment can promote or guarantee the proper expression of human rights. It is argued that in the absence of environmental security, proper development cannot be sustainably achieved. Therefore, achieving environmental security first, as a human right prerogative will ensure that the Kenyan populace is able to enjoy access to environmental goods and services and in so doing, development can be adequately pursued and responsibly achieved.

2. Conceptualising Environmental Security

Environmental degradation has become a worrying trend the world over, thus prompting discussions at all levels on how best to address the same. Indeed, it has been observed that over the last several years environmental degradation and resource scarcity have come to be perceived as threats not only to human well-being and prosperity, but also to international security.³ This has also led to calls for reconceptualisation and re-evaluation of security as traditionally understood, due to the growing potential for conflict over scarce or degraded resources, to include environmental security as an element of human security.⁴ As already pointed out, a secure environment makes it possible to exercise and enjoy the right to life by ensuring that any threats to life, and extension to human beings, are neutralized. It is argued that the notion of "environmental security," should be understood to have two dimensions. On the one hand, in placing emphasis upon the environmental dimension, security means maintaining an ecological balance, at least to the extent necessary to sustain resource supplies and life-support systems. On the other hand, in emphasizing the dimension of security in the traditional sense, the term refers to the prevention and management of conflicts precipitated by environmental decline.⁵

Environmental security 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.⁶ This broader conception of environmental security, it has been argued, is crucial because, at least in the long term, security, even in the traditional sense, can be ensured only if security in the environmental sense is emphasized. Only where ecological balance is

² See generally, 'Species Extinction Is a Great Moral Wrong' (Elsevier Connect) available at <<https://www.elsevier.com/connect/species-extinction-is-a-great-moral-wrong>> accessed 23 October 2015.

³ J. Brunnee, "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 at p. 1742.

⁴ Ibid, p. 1742; See also, N. Græger, "Environmental Security?" *Journal of Peace Research*, Vol. 33, No. 1 (Feb., 1996), pp. 109-116, at pp. 109-110; See also A.S. Tolentino, "Asean environmental security concerns," *The Manila Times*, October 3, 2015 10:16 pm, available at <http://www.manilatimes.net/asean-environmental-security-concerns/221970/> [Accessed on 17/10/2015].

⁵ J. Brunnee, "Environmental Security in the Twenty-First Century: New Momentum for the Development of International Environmental Law?" *op cit*, p. 1742.

⁶ F. Rita, "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.

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maintained, resources are protected, and supplies ensured, will the potential for conflict be significantly reduced. Further, focusing on common environmental interests rather than on competing strategic interests will promote international cooperation and, ultimately, security.⁷ To buttress this, it has been argued that *few threats to peace and survival of the human community are greater than those posed by the prospects of cumulative and irreversible degradation of the biosphere on which human life depends. True security cannot be achieved by mounting buildup of weapons (defence in a narrow sense), but only by providing basic conditions for solving non-military problems which threaten them. Our survival depends not only on military balance, but on global cooperation to ensure a sustainable environment* (emphasis added).⁸

The Brundtland Commission argued that the whole notion of security as traditionally understood in terms of political and military threats to national sovereignty, must be expanded to include the growing impacts of environmental stress - locally, nationally, regionally, and globally.⁹ They observed that there are no military solutions to 'environmental insecurity'.¹⁰ There has been a growing linkage between environment and conflict.¹¹ Environmental deficiencies supply conditions which render conflict all the more likely. They can serve to determine the source of conflict, they can act as multipliers that aggravate core causes of conflict, and they can help to shape the nature of conflict. Moreover they can not only contribute to conflict, they can stimulate the growing use of force to repress disaffection among those who suffer the consequences of environmental decline.¹² As a result, it is concluded that national security is no longer about fighting forces and weaponry alone, but it relates increasingly to watersheds, forests, soil cover, croplands, genetic resources, climate and other factors rarely considered by military experts and political leaders, but that taken together deserve to be viewed as equally crucial to a nation's security as military prowess.¹³

Environmental security has been defined in different ways to fit various contexts, and despite the many attempts to define the same, the concept is understood differently by people of various professions

⁷ Ibid; See also, P. Nijkamp, "Environmental Security and Sustainability in Natural Resource Management: A Decision Support Framework," *Serie Research Memoranda*, 1997, pp. 4-5. Available at <http://degree.uvu.vu.nl/RePEc/vua/wpaper/pdf/19970063.pdf> [Accessed on 16/10/2015].

⁸ World Commission on Environment and Development, *Our Common Future: Report of the World Commission on Environment and Development*, 1987, A/42/427.

⁹ Ibid, para. 86.

¹⁰ Ibid.

¹¹ B. Bromwich, "Environmental degradation and conflict in Darfur: implications for peace and recovery," *Humanitarian Exchange Magazine*, Issue 39, July 2008, available at <http://www.odihpn.org/humanitarian-exchange-magazine/issue-39/environmental-degradation-and-conflict-in-darfur-implications-for-peace-and-recovery> [Accessed on 10/10/2015].

¹² N. Myers, "Environmental Security: What's New and Different?" Available at <http://www.envirosecurity.org/conference/working/newanddifferent.pdf> [Accessed on 11/10/2015], p.4.

¹³ Ibid, p.4; See also generally, B.R. Allenby, "Environmental Security: Concept and Implementation," *International Political Science Review / Revue internationale de science politique*, Vol. 21, No. 1 (Jan., 2000), pp. 5-21.

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in diverse countries.¹⁴ For instance, it has been argued that in developing countries, environmental security has more to do with a household's ability to meet the demand for environmental resources in production and consumption activities.¹⁵ In this regard, it is observed that for many of the four billion inhabitants in the developing countries, security is conceived at the most basic level of the struggle for individual survival.¹⁶ It is estimated that over eight hundred million live in absolute poverty and deprivation, five hundred million are malnourished, and many millions have no access to safe drinking-water and do not have the income necessary to purchase food.¹⁷ They lack protection against the consequences of environmental degradation and natural calamities, such as floods and drought, which, in Africa in particular, have produced famine and suffering of unprecedented proportions.¹⁸ This is the approach to environmental security that informs the discussion in this paper.

In this paper, environmental security is used to refer to an environmental condition that is able to fully satisfy the needs of the people living around an area, those who rely on it for their survival. Human security as an element of poverty eradication has been defined as: protection of the vital core of all human lives in ways that enhance human freedoms and human fulfillment. Human security means protecting fundamental freedoms – freedoms that are the essence of life. It involves protecting people from critical (severe) and pervasive (widespread) threats and situations. It includes using processes that build on people's strengths and aspirations, thus creating political, social, environmental, economic, military and cultural systems that together give people the building blocks of survival, livelihood and dignity.¹⁹ Environmental conditions, being central to human security and survival, must be addressed as one of the means of eradicating poverty. Human security can be threatened by various factors, including conflicts arising from scarce resources, as well as unhealthy environment.²⁰

There are scholars who have argued that not all environmental problems lead to conflict, and not all conflicts stem from environmental problems, and that indeed it is rare for linkages to be directly and

¹⁴ O. Skarlato & I. Telesh, Environmental security and policymaking: concepts and practices in North America and Europe, a Review, *Rostock. Meeresbiolog. Beitr.*, pp. 169-185, p. 170. Available at http://www.oekologie.uni-rostock.de/fileadmin/Mathnat_Bio_Oekologie/RMB/RMB_19/RMB_19-12.pdf [Accessed on 12/10/2015].

¹⁵ S.S. Shrestha & P.B. Bhandari, "Environmental Security and Labor Migration in Nepal," *Paper for presentation at the IUSSP's XXV International Population Conference, Tours, France, July 18-23, 2005*, p. 2. Available at http://demoscope.ru/weekly/knigi/tours_2005/papers/iussp2005s52252.pdf [Accessed on 12/10/2015].

¹⁶ United Nations, "Concepts of Security," *United Nations Publication, A/40/553*, 1986, p. 20, para. 86.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ United Nations Human Security Unit, *Human Security in Theory and Practice: An Overview of the Human Security Concept and the United Nations Trust Fund for Human Security*, 2009, p. 5. Available at http://www.un.org/humansecurity/sites/www.un.org.humansecurity/files/human_security_in_theory_and_practice_english.pdf [Accessed on 12/10/2015].

²⁰ See generally, Laura J Shepherd, *Critical Approaches to Security: An Introduction to Theories and Methods* (Routledge 2013).

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exclusively causative.²¹ It is argued that while environmental phenomena contribute to conflicts, they can rarely be described as sole causes: there are too many other variables mixed in, such as inefficient economies, unjust social systems and repressive governments, any of which can predispose a nation to instability-and thus, in turn, make it specially susceptible to environmental problems.²² While this may be true, it is noteworthy that the link between the two is more pronounced in developing countries, like Kenya, where most people derive their livelihoods from the environment.²³

Competition for scarce resources may lead to a 'survival of the fittest' situation.²⁴ In such circumstances, environmental degradation poses a higher potential for conflict, as every group fights for their survival.²⁵ 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).²⁶ 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.²⁷ 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.²⁸

3. Constitution of Kenya 2010 and the Environmental Security

The preamble to the Constitution of Kenya recognises the importance of the environment and therefore calls for its respect, being the heritage of the Kenyan people, and also requires its sustenance for the benefit of future generations.²⁹ Also noteworthy is the provision that sustainable development is one of the national values and principles of governance, which must bind all State organs, State officers, public officers and all persons whenever any of them: applies or interprets the Constitution; enacts, applies or

²¹ N. Myers, "Environmental Security: What's New and Different?" *op cit*, p.3.

²² *Ibid*, p.3; See also generally, N.R. Biswas, "Is the Environment a Security Threat? Environmental Security beyond Securitization," *International Affairs Review*, Vol. XX, No. 1, Winter 2011.

²³ See S. Bocchi, et al, 'Environmental Security: A Geographic Information System Analysis Approach—The Case of Kenya,' *Environmental Management* Vol. 37, No. 2, 2005, pp. 186–199, pp. 191-195.

²⁴ 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].

²⁵ See K. Bowman, *et al*, "Chapter 1: Environment for Development," (United Nations), available at http://www.unep.org/geo/geo4/report/01_Environment_for_Development.pdf [Accessed on 12/10/2015].

²⁶ S. Khagram, *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.

²⁷ *Ibid*.

²⁸ See the *Report of the Judicial Commission Appointed to Inquire into Tribal Clashes in Kenya*, (the 'Akiwumi Commission'), (Government Printer, Nairobi, 1999).

²⁹ Preamble, Constitution of Kenya, (Government Printer, 2010).

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interprets any law; or makes or implements public policy decisions.³⁰ This is especially important in environmental and natural resource management matters.

The Constitution also has a whole chapter dedicated to land and environmental related matters.³¹ The Constitution provides that every person has the right to a clean and healthy environment, which 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 69³²; and to have obligations relating to the environment fulfilled under Article 70.³³ In a bid to ensure sustainability and safeguard land-related resources, the Constitution provides that land in Kenya should be held, used and managed in a manner that is equitable, efficient, productive and sustainable, and in accordance with the following principles: equitable access to land; security of land rights; sustainable and productive management of land resources; transparent and cost effective administration of land; sound conservation and protection of ecologically sensitive areas; elimination of gender discrimination in law, customs and practices related to land and property in land; and encouragement of communities to settle land disputes through recognised local community initiatives consistent with the Constitution.³⁴ These principles may be construed as ones meant to ensure that even as communities derive their livelihoods from land and land-related resources, they do so in a sustainable manner. Sustainable rural livelihood has been defined as *a livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long-term* (emphasis added).³⁵

³⁰ Art. 10.

³¹ Arts. 60-72.

³² Article 69 (1) provides for State and individual obligations in respect of the environment. It requires the State to, inter alia: ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources, 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; encourage public participation in the management, protection and conservation of the environment; protect genetic resources and biological diversity; 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; Art. 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.

³³ Art. 42.

³⁴ Art. 60(1).

³⁵ L. Krantz, *The Sustainable Livelihood Approach to Poverty Reduction: An Introduction*, (Swedish International Development Cooperation Agency, February, 2001), p.6, available at http://www.sida.se/contentassets/bd474c210163447c9a7963d77c64148a/the-sustainable-livelihood-approach-to-poverty-reduction_2656.pdf [Accessed on 16/10/2015]; cf, 'Chapter 2: The Theory Behind the Sustainable Livelihood Approach,' in S. Morse & N. McNamara, *Sustainable Livelihood Approach: A Critique of*

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With regard to economic and social rights, the Constitution provides that every person has the 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; to clean and safe water in adequate quantities; to social security; and to education.³⁶

It is noteworthy that the provision of most of the economic and social rights as guaranteed in the Constitution, is dependent on the state of the environment.³⁷ It has been argued that full environmental security is achieved when the natural resources provide full environmental services to the human beings who depend on this area and when this condition is sustainable.³⁸ This demonstrates the close relationship between environmental security and sustainable development. A healthy environment that supports the needs of communities, with natural ability for replenishment means that there is enough for everyone as well as hope for future generations. A satisfied society is able to co-exist peacefully.

To establish the relationship between environmental security and sustainable development, the Food and Agricultural Organisation defines sustainable development by specifying the features of sustainable development thus: *resource use and environmental management are combined with increased and sustained production, secure livelihoods, food security, equity, social stability, and people's*

Theory and Practice, (Springer Science+Business Media Dordrecht, 2013), pp. 15-60. S. Morse and N. McNamara observe that, sustainable livelihood approach evolved within the context of the intentional development approach by which development practitioners were seeking to maximise the effectiveness of their interventions to help the disadvantaged. It is in effect a diagnostic tool which provides a framework for analysis leading to concrete suggestions for intervention. It was typically applied in poorer countries as part of a planning phase for an intervention via policy, a development project or perhaps as the basis for more in-depth research. In that sense the sustainable livelihood approach is an analysis of peoples' current livelihood and what is needed for an 'enhancement', and useful in avoiding the inappropriate interventions critiqued by the post-developmentalists. They however argue that it should be noted that the latter might not necessarily be the need for people to replace their current livelihood or indeed have more means of livelihood. Instead it might involve making the current means of livelihood less susceptible to environmental, social or economic 'stresses'. The sustainable livelihood approach could also result in recommendations that people themselves may be able to put into practice rather than be dependent upon the actions of outsiders. According to them, therefore, it is thus a 'no holds barred' approach to understanding and improving the sustainability of livelihood, although it clearly has to take into account what is feasible in different circumstances (p. 17-18). The import of this, in the Kenyan context, would be that various regions require different approaches to achieve environmental security and overall development for the people.

³⁶ Art. 43(1).

³⁷ See generally, A. Boyle, "Human Rights and the Environment: A Reassessment," *Boyle UNEP Paper Revised*, available at

³⁸F. W. T. P., Vries, *et al*, "Integrated Land and Water Management for Food and Environmental Security," *Integrated land and water management for food and environmental security*, (Comprehensive Assessment of Water Management in Agriculture Research Report 1, 2003), p. 54. Available at

<http://www.unep.org/environmentalgovernance/Portals/8/documents/Events/HumanRightsEnvironmentRev.pdf> [Accessed on 16/10/2015].

<http://www.gwp.org/Global/ToolBox/References/Integrated%20land%20and%20water%20management%20for%20food%20and%20environmental%20security%20%28IWMI,%202003%29.pdf> [Accessed on 12/10/2015].

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participation in the development process (emphasis added).³⁹ As such, it is arguable that for a country to achieve sustainable development, all the foregoing elements, including environmental security concerns, must be addressed. This is due to the fact that any external shock to the environment such as deforestation, makes the local people, especially the rural households, environmentally and economically vulnerable in securing their livelihood.⁴⁰ It has been argued that poverty eradication contains four ingredients which include: food and nutritional security; income security; social security; and human security.⁴¹ For poverty to be fully eradicated, these elements must adequately be addressed.

A number of these ingredients are so closely related to environmental security, that an environmentally insecure environment compromises the realisation of a poverty-free society. 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.⁴² It has rightly been observed that impoverished people feel driven by their plight to overwork their croplands, to clear forests and to cultivate drylands and mountain slopes for additional croplands, all of which trigger soil erosion and other environmental ills, and result in poverty compounded.⁴³ In such an environment, sustainable development becomes a mirage.⁴⁴ Nevertheless, it has been observed that rapidly increasing population in the dynamic semi-arid agro-ecosystems in sub-Saharan Africa (SSA) highlights the necessity to increase food production, while at the same time safeguarding other ecological systems that support human development and well-being.⁴⁵

From the foregoing, it is arguable that the full implementation of the Bill of Rights largely depends on the state of the environment, especially in relation to the social and economic rights of the people. A clean and healthy environment that is secure is central for the implementation and enforcement of the right to: the highest attainable standard of health; accessible and adequate housing, and to reasonable standards of sanitation; to be free from hunger, and to have adequate food of acceptable quality; to clean and safe water in adequate quantities; and to social security.⁴⁶ Environmental degradation negatively affects the ability of a State to feed its people, provide clean and safe drinking water in

³⁹S.S. Shrestha & P.B. Bhandari, "Environmental Security and Labor Migration in Nepal," *op cit*, p. 4.

⁴⁰ *Ibid*, p. 1.

⁴¹ R. Das, *Poverty and Hunger: Causes and Consequences*, (Sarup & Sons, 2006), p. 8.

⁴² K. Muigua, "Food Security and Environmental Sustainability in Kenya," p.4, available at

<http://www.kmco.co.ke/attachments/article/129/FOOD%20SECURITY%20AND%20ENVIRONMENTAL%20SUSTAINABILITY%20IN%20KENYA.pdf>

⁴³ N. Myers, "Environmental Security: What's New and Different?" pp. 3-4.

⁴⁴ Boyce JK, 'Is Inequality Bad for the Environment?' (2007) 15 *Research in Social Problems and Public Policy* 267; See also Hoffman AJ and Sandelands LE, 'Getting Right with Nature' (2005) 18 *Organization & Environment* 141.

⁴⁵ Smallholder System Innovations in Integrated Watershed Management (SSI), *Strategies of Water for Food and Environmental Security in Drought-Prone Tropical and Subtropical Agro-Ecosystems*, p. vii.

⁴⁶ Art. 43.

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adequate quantities, and attain right to health and reasonable standards of sanitation, amongst others. Any meaningful implementation of the constitutional Bill of Rights should therefore start with the realisation of an environmentally secure society for all.

4. Global Efforts towards Environmental Security

Environmental protection and conservation has been at the centre stage in the global economic, social and political discussions. Sustainable development agenda was informed by the need to ensure an environmentally sound world that can satisfy the needs of the current generation as well as those of future generations. Indeed, it has been asserted that sustainable development has been the overarching goal of the international community since the UN Conference on Environment and Development (UNCED) in 1992, where, amongst numerous commitments, the Conference called upon governments to develop national strategies for sustainable development, incorporating policy measures outlined in the Rio Declaration and Agenda 21.⁴⁷

It is further observed that despite the efforts of many governments around the world to implement such strategies as well as international cooperation to support national governments, there are continuing concerns over global economic and environmental developments in many countries which have been intensified by recent prolonged global energy, food and financial crises, and underscored by continued warnings from global scientists that society is in danger of transgressing a number of planetary boundaries or ecological limits.⁴⁸ Environmental security is thus one of the key elements of the sustainable development agenda.

4.1 Agenda 21

Agenda 21⁴⁹ is part of the global efforts aimed to address the pressing problems of today and also aims at preparing the world for the challenges of the next century. It reflects a global consensus and political commitment at the highest level on development and environment cooperation.⁵⁰ Chapter 9 of the Agenda 21 is dedicated to measures aimed at protection of the atmosphere. The options and measures described in the chapter are recommended for consideration and, as appropriate, implementation by

⁴⁷United 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].

⁴⁸ Ibid.

⁴⁹ United Nations, United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 3 to 14 June 1992, Agenda 21.

⁵⁰ Ibid, Preamble.

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Governments and other bodies in their efforts to protect the atmosphere.⁵¹ Specifically, the chapter is dedicated to the following areas: addressing the uncertainties: improving the scientific basis for decision-making; promoting sustainable development: energy development, efficiency and consumption; transportation; industrial development; terrestrial and marine resource development and land use; preventing stratospheric ozone depletion; and transboundary atmospheric pollution.⁵² As part of the efforts towards ensuring environmentally sound atmosphere, states are to take diverse measures, some of which are suggested in the document, that address the threats that contribute to depreciating atmospheric conditions. The suggestions are cross-cutting and aimed at addressing threats that may emanate from various sectors of the economy.

4.2 1992 United Nations Framework Convention on Climate Change

The 1992 United Nations Framework Convention on Climate Change⁵³ which is an intergovernmental treaty developed to address the problem of climate change, setting out an agreed framework for dealing with the issue, was negotiated from February 1991 to May 1992 and opened for signature at the June 1992 UN Conference on Environment and Development (UNCED) — also known as the Rio Earth Summit.⁵⁴

By 1995, countries realized that emission reductions provisions in the Convention were inadequate. They launched negotiations to strengthen the global response to climate change, and, two years later, adopted the Kyoto Protocol. The Kyoto Protocol legally binds developed countries to emission reduction targets. The Protocol's first commitment period started in 2008 and ended in 2012. The second commitment period began on 1 January 2013 and will end in 2020.⁵⁵

Parties to the Convention continue to meet regularly to take stock of progress in implementing their obligations under the treaty, and to consider further actions to address the climate change threat.⁵⁶ These provisions are expected to inform the national policy and legal framework for environmental security for the current and future generations.

⁵¹ Ibid, para. 9.1.

⁵² Ibid, para. 9.5.

⁵³ UN General Assembly, *United Nations Framework Convention on Climate Change: resolution / adopted by the General Assembly*, 20 January 1994, A/RES/48/189.

⁵⁴ 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-fcccintro.htm [Accessed on 24/10/2015].

⁵⁵ United Nations Framework Convention on Climate Change, *Background on the UNFCCC: The international response to climate change*, available at http://unfccc.int/essential_background/items/6031.php [Accessed on 24/10/2015].

⁵⁶ International Institute for Sustainable Development – Reporting Services Division, “Climate and Atmosphere: Introduction to the UNFCCC and Kyoto Protocol,” *op cit*.

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4.3 Ramsar Convention (1973)

The Ramsar Convention⁵⁷ 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.⁵⁸

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 serves the human beings, animals and plants.

It therefore, follows that improved health of the wetland resources can go a long way in achieving environmental health and security for both anthropocentric and ecocentric reasons.

4.4 Convention on Biological Diversity

The Convention on Biological Diversity⁵⁹ 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.⁶⁰ Amongst the most relevant provisions of the Convention are Articles 6 and 7.

Article 6 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.

⁵⁷ Convention on Wetlands of International Importance especially as Waterfowl Habitat, 996 UNTS 245; TIAS 11084; 11 ILM 963 (1972).

⁵⁸ 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.

⁵⁹ 1992 Convention on Biological Diversity, [1993] ATS 32 / 1760 UNTS 79 / 31 ILM 818 (1992).

⁶⁰ Art. 1.

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Article 7 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 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.

4.5 Convention on the Law of the Non-navigational Uses of International Watercourses, 1997

The Convention on the Non-Navigational Use of Watercourses⁶¹ applies to uses of international watercourses and of their waters for purposes other than navigation and to measures of protection, preservation and management related to the uses of those watercourses and their waters.⁶² 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.⁶³ 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 utilization and adequate protection of an international watercourse.⁶⁴

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.

⁶¹ 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).

⁶² Art. 1.1.

⁶³ Art. 7.1.

⁶⁴ Art. 8.1.

4.6 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)

The Forest Principles⁶⁵ 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. They also provide that 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.⁶⁶ They also acknowledge that 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.⁶⁷

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. They state that 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.⁶⁸

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 recognized.⁶⁹

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

⁶⁵ A/CONF.151/26 (Vol. III).

⁶⁶ Preamble.

⁶⁷ Preamble.

⁶⁸ Principle 2 (b).

⁶⁹ Principle 4.

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social organization, as well as adequate levels of livelihood and well-being, through, inter alia, those land tenure arrangements which serve as incentives for the sustainable management of forests.⁷⁰

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 uses, forest conservation and protection is important for the realisation of a healthy environment.

4.7 Sustainable Development Goals (SDGs)

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 2030.⁷¹ According to the United Nations Development Programme (UNDP), the Sustainable Development Goals, otherwise known as the Global Goals, build on the Millennium Development Goals (MDGs), eight anti-poverty targets that the world committed to achieving by 2015.⁷² The MDGs, 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.⁷³

In order to end hunger, achieve food security and improved nutrition and promote sustainable agriculture, the SDGs aim to ensure that by 2030, countries double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.⁷⁴

They also 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.⁷⁵

⁷⁰ Principle 5 (a).

⁷¹ 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].

⁷² Ibid.

⁷³ Ibid.

⁷⁴ Goal 2.3.

⁷⁵ Goal 2.4.

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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 utilization of genetic resources and associated traditional knowledge, as internationally agreed.⁷⁶

In summary, the Sustainable Development Goals seeks to, inter alia, end poverty in all its forms everywhere; end hunger, achieve food security and improved nutrition and promote sustainable agriculture; ensure healthy lives and promote well-being for all at all ages; ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; achieve gender equality and empower all women and girls; ensure availability and sustainable management of water and sanitation for all; ensure access to affordable, reliable, sustainable and modern energy for all; promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; reduce inequality within and among countries; make cities and human settlements inclusive, safe, resilient and sustainable; ensure sustainable consumption and production patterns; take urgent action to combat climate change and its impacts; conserve and sustainably use the oceans, seas and marine resources for sustainable development; protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss; promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels; and strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.

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.

⁷⁶ Goal 2.5.

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4.8 Transforming our world: the 2030 Agenda for Sustainable Development

The 2030 Agenda for Sustainable Development⁷⁷ 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.⁷⁸ With regard to planet sustainability, the State parties agreed to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.⁷⁹ Concerning peace sustainability, the Agenda states that countries are determined to foster peaceful, just and inclusive societies which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.⁸⁰ Going by this assertion, environmental security becomes an indispensable part of sustainable development.

The participants also resolved, between now and 2030, to end poverty and hunger everywhere; to combat inequalities within and among countries; to build peaceful, just and inclusive societies; to protect human rights and promote gender equality and the empowerment of women and girls; and to ensure the lasting protection of the planet and its natural resources. They resolved also to create conditions for sustainable, inclusive and sustained economic growth, shared prosperity and decent work for all, taking into account different levels of national development and capacities.⁸¹

The Agenda also envisages a world in which every country enjoys sustained, inclusive and sustainable economic growth and decent work for all. 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. One in which democracy, good governance and the rule of law, as well as an enabling environment at the national and international levels, are essential for sustainable development, including sustained and inclusive economic growth, social development, environmental protection and the eradication of poverty and hunger. One in which development and the application of technology are climate-sensitive, respect biodiversity and are resilient. One in which humanity lives in harmony with nature and in which wildlife and other living species are protected.⁸²

Through full implementation of the goals and principles set out in the Agenda, it is possible to achieve a clean and healthy environment both for the sake of a secure future for the human beings and the

⁷⁷Resolution 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.

⁷⁸ Ibid, Preamble.

⁷⁹ Ibid, Preamble.

⁸⁰ Ibid, Preamble.

⁸¹ Ibid, Agenda No. 3.

⁸² Ibid, Agenda No. 9.

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wildlife and other living species. It incorporates both anthropocentric and ecocentric approaches to environmental conservation and protection, since it seeks to protect both the humans and the planet as a whole.

4.9 United Nations Conference on Sustainable Development, Rio+20

The United Nations Conference on Sustainable Development - or Rio+20 - took place in Rio de Janeiro, Brazil on 20-22 June 2012. It resulted in a focused political outcome document⁸³ which contains clear and practical measures for implementing sustainable development.⁸⁴

The document was as a recognition of the fact that poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development. The participants also reaffirmed the need to achieve sustainable development by promoting sustained, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting the integrated and sustainable management of natural resources and ecosystems that supports, inter alia, economic, social and human development while facilitating ecosystem conservation, regeneration and restoration and resilience in the face of new and emerging challenges.⁸⁵

The Conference and the resultant document were for purposes of achieving sustainable development. All that is required now is political goodwill from the state parties to ensure that their national frameworks and efforts towards sustainable development are in line with the spirit of Rio+20 as a way of guaranteeing sustainable production, consumption and conservation of the environmental resources for both the present and future generations. By ensuring that everyone is on board and meaningfully engaged, the hope for a sustainably developed world becomes realizable for all.

5. Environmental Security as a means to an end

While a proper environmental security mechanism ensures that access to environmental goods and services is available to all, many Kenyans continue to ravage in poverty with no ability to benefit from the environmental resources capable of being generated from the surrounding environment. Many user groups are still finding it hard to enjoy environmental goods and services, while facing social problems such as, poor sanitation, lack of clean water, and an array of pollutants, amongst others.

⁸³ 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.

⁸⁴ 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].

⁸⁵ Clause 4.

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Although there have been widespread calls for a more secure environment, 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 address the problem.

It is generally agreed that conflict over scarce resources, such as minerals, fish, water, and particularly territory, is a traditional source of armed struggle.⁸⁶It is also not in question that environmental degradation may be viewed as a contribution to armed conflict in the sense of exacerbating conflicts or adding new dimensions'.⁸⁷This is well demonstrated in the armed conflicts in parts of Kenya's Tana Delta, Rift Valley Region and Northern parts of the country, where inter-ethnic resource-based conflict has been prevalent.⁸⁸However, resource abundance can also lead to conflict over resources as has been witnessed in many African States.⁸⁹ Efforts towards achieving environmental security must therefore tackle problems related to the two instances, where they are likely to occur. Environmental security involves addressing environmental degradation, resource depletion, natural disasters, and pollution, amongst others.⁹⁰

Recently, Kenya has experienced various security threats from external sources, namely Al Shabaab,⁹¹as well as internal inter-ethnic and inter-clan conflict which are mainly fueled by conflicting interests and competition over resources.⁹² While the State forces, mainly National Police service and

⁸⁶ N.P. Gleditsch, "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, p. 381.

⁸⁷ Ibid, p. 382.

⁸⁸ See generally, M. Wepundi, *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].

⁸⁹ For instance, the following countries have experienced internal natural resources-related conflict that may be attributed to resource abundance: South Sudan, Liberia, Sierra Leone, Democratic Republic of Congo, Congo - Brazzaville, Central African Republic, amongst others; See also generally, G. King & V. Lawrence, Africa, "A Continent in Crisis: The Economic and Social Implications of Civil War and Unrest among African Nations," *EDGE*, Final Spring 2005, June, 2005; see also, M. Jenkins & E. Umoh, 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; *Wiwa v. Royal Dutch Petroleum Co.*, 226 F.3d 88 (2d Cir. 2000), cert. denied, 532 U.S. 941(2001); Institute for Environmental Security, "What is Environmental Security?" Available at http://www.envirosecurity.org/activities/What_is_Environmental_Security.pdf [Accessed on 13/10/2015].

⁹⁰ M. Wepundi, *et al*, "Availability of Small Arms and Perceptions of Security in Kenya: An Assessment," *op cit*, p.7.

⁹¹ Islamist militant group *al-Shabaab* operates from Somalia, and has been carrying out terrorist attacks against Kenya.

⁹² See generally, A.H. Haji, *Inter-Clan Peace Initiative in Mandera County: A Case of Gurreh and Murulle Communities from 1998 to 2012*, Research Project Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Armed Conflict and Peace Studies, of the University of Nairobi, December 2014. Available at http://erepository.uonbi.ac.ke/bitstream/handle/11295/76901/Alinur_Inter-clan%20peace%20initiative%20in%20Mandera%20county%3A%20a%20case%20of%20Qurreh%20and%20Murulle%20communities%20from%201998%20to%202012.pdf?sequence=1 [Accessed on 13/10/2015]; See also, Institute for Peace and Security Studies in Collaboration with Friedrich Ebert Stiftung, *Anthology of Peace and*

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Kenya Defence Forces, can deal with the external attacks more effectively, it is arguable that the solution to the internal conflict lies in something deeper than the use of force. Any feasible approach must address the root causes of these internal conflicts. While addressing any ongoing aggression between communities and clans through more reactive means, it is important that measures that pre-empt recurrence of such conflict are adopted. Measures that are geared towards achievement of environmental security for all would go a long way in addressing such conflict, by ensuring that such factors as environmental degradation, resource depletion, natural disasters, and pollution, amongst others are adequately dealt with to guarantee environmental security for all.

6. Efforts towards Environmental Security in Kenya

There has been various efforts by the Kenyan authorities to ensure that the environment is secure both for the current generation and the future generations, as required under the international legal instruments on environment and development. The country has been grappling with such issues as climate change, environmental degradation, pollution and deforestation, amongst others. To address these issues, a number of measures have been put in place.

The *REDD+ Concept Note: Dryland Forest Conservation*⁹³ records that the Government of Kenya has a REDD+ Coordination Office and National REDD+ Technical Working Group in place, developed a REDD readiness preparation proposal (RPP) and is working toward a national REDD+ strategy.⁹⁴ The REDD+ actions are consistent with the goal of Kenya's constitution that sets a target of 10 percent tree cover, up from the current six percent. These actions are also consistent with *Kenya Vision 2030*, the long-term development blueprint for the country.⁹⁵ The actions are also aimed at restoring dryland forests for sustainable development.⁹⁶ This can go a long way in attaining environmental security in the arid and semi-arid regions in the country. However, there should be taken realizable steps, in collaboration with the locals, to ensure the Government projections are realized for environmental security especially in the arid and semi-arid areas in the country.

As part of an analysis of low-carbon development options in Kenya, which covers the six mitigation sectors set out in Article 4.1 of the United Nations Framework Convention on Climate Change (UNFCCC): energy, transport, industry, waste, forestry and agriculture, Kenya has made attempts to

Security Research, (Addis Ababa, Ethiopia, Vol. 3, December, 2012), p. 5. Available at <http://library.fes.de/pdf-files/bueros/aethiopian/09883.pdf> [Accessed on 13/10/2015].

⁹³ D. Murphy & S. McFatridge, *REDD+ Concept Note: Dryland Forest Conservation*, (IISD, 2012).

⁹⁴ P. 1.

⁹⁵ P.1.

⁹⁶ Pp. 3-4.

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move away from over-reliance on energy sources that increase greenhouse gas emissions.⁹⁷ The country aims at diversifying energy sources for the growing energy needs in the country, while reducing environmental impact for sustainability.⁹⁸ This is a laudable step considering that wood fuel greatly affects reforestation and afforestation efforts. Diversified energy sources can boost the drive towards achieving at least ten percent forest cover in the country.

It has been observed that Kenya is experiencing rapid growth in the generation of solid waste, and appropriate systems for waste collection, management and disposal are a cornerstone for development as they significantly contribute to cleanliness and health in human settlements.⁹⁹ However, while solid waste collection, management and disposal has improved over the past years, it still poses a challenge in Kenya, since according to the Kenya National Environment Management Authority (NEMA), only 40 percent of waste generated in urban centres is collected and disposed of at designated disposal sites.¹⁰⁰ Further, the provision of adequate sanitary facilities in urban areas in the face of growing population, especially sewage disposal, poses another challenge.¹⁰¹

To address the problem, the Government aims to adopt several Pollution and Solid Waste Management strategies have been identified to deliver on short- and long-term goals which include: develop and enforce mechanisms targeting pollution and solid waste management regulations; public-private partnerships for municipal waste; reduce importation of oil with high sulphur content; establish a national air quality monitoring system; and apply market-oriented instruments to regulate the use of plastic bags.¹⁰²

It is important to point out that while pollution is a major contributing factor to environmental degradation, pollution and solid waste management strategies will require to be backed by creating environmental awareness to curb further corruption by the local people. Pollution of water, air and other land-based resources does not come from the urban centres only but also from unsustainable agricultural and production methods among the people. These ought to be dealt with through ensuring a collaborative approach to pollution control and eliminations. For instance, through encouraging the communities to plant more trees and to employ sustainable production methods, atmospheric pollution is greatly reduced through reduced greenhouse gases elimination. Communities are also able to employ precautionary approach in their interaction with the environment. An environmentally-conscious community makes it

⁹⁷ L. Cameron, et al, *National Climate Change Action Plan: Mitigation*, 'Chapter 5: Electricity Generation,' (Government of Kenya, August 2012), p. 1.

⁹⁸ Ibid.

⁹⁹ L. Cameron, et al, *National Climate Change Action Plan: Mitigation*, 'Chapter 9: Waste,' (Government of Kenya, August 2012), p. 1.

¹⁰⁰ Ibid.

¹⁰¹ Ibid.

¹⁰² Ibid, p. 3.

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easier to bring polluters to book. Thus, the foregoing government plans should as much as possible include the people who are most affected so as to make them appreciate the implications of such efforts and consequently give them social approval.

7. Call for Action: Moving Beyond the Law

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.¹⁰³ While it is difficult to establish such rates, the solution may lie in moving away from the 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.¹⁰⁴ It is contended that without an inflexible commitment to the sustainable development of resources and the sustainable disposal of wastes there can be no environmental security.¹⁰⁵ This is true considering that unsustainable use of resources coupled with unsustainable waste disposal negatively affects the environment and ultimately the quality of life for human beings, plants as well as animals.

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.¹⁰⁶ This approach is envisaged in the Earth Charter¹⁰⁷ which calls for respect for the Earth and life in all its diversity in recognition of the fact that all beings are interdependent and every form of life has value regardless of its worth to human beings.¹⁰⁸ For instance, without the bees, pollination of plants would be almost impossible, and without plants animal lives would be jeopardized. A sustained and secure environment is also useful for the regeneration of resources. The Charter calls for rights with responsibilities and states that there should be care for the community of life with understanding, compassion, and love. It provides that all must accept that with the right to own, manage, and use natural resources comes the duty to prevent environmental harm and to protect the rights of people.¹⁰⁹ A fundamental purpose of the Earth Charter is to encourage all peoples to identify with the whole Earth

¹⁰³ A.H. Westing, "Environmental Security and Its Relation to Ethiopia and Sudan," *Ambio*, Vol. 20, No. 5, Environmental Security (Aug., 1991), pp. 168-171, p. 168.

¹⁰⁴ See Government of Kenya, *Kenya Green Economy Strategy and Implementation Plan (GESIP)*, Maanzoni-1 Draft, May 2015.

¹⁰⁵ *Ibid.*

¹⁰⁶ See generally, Oksanen M, 'Should Trees Have Standing? Law, Morality, and the Environment' 174.

¹⁰⁷ UN General Assembly, *World Charter for Nature*, 28 October 1982, A/RES/37/7.

¹⁰⁸ Principle 1.

¹⁰⁹ Principle 2.

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community as well as their local communities and to expand their moral concern and caring to include the present and future well-being of the entire human family and the larger living world.¹¹⁰

Kenya asserts that it has shown commitment to protect the climate system for the benefit of the present and future generations by supporting the United Nations Framework Convention on Climate Change (UNFCCC) process; ratifying the Kyoto Protocol in 2005; and contributing to continental and regional climate change initiatives.¹¹¹ Notably, there is also the pending legislation, *Climate Change Bill, 2014*, which seeks, inter alia, to provide- a framework for mitigating and adapting to the effects of climate change on all sectors of the economy and levels of governance; a mechanism for coordination and governance of matters relating to climate change; coordination mechanism for formulation of programmes and plans to enhance the resilience of human and ecological systems against the impacts of climate change; for mainstreaming of the principle of sustainable development in the planning for and on climate change response strategies and actions; for promotion of social and economic measures in climate change responses to support sustainable human development; and a mechanism for coordination of measuring , verification and reporting of climate interventions.¹¹²

This, it is argued, is complemented by the fact that the country's Constitution has set out a legal commitment to attain ecologically sustainable development; hence providing a basis to address the challenge of climate change while striving to attain its development goals through the Kenya Vision 2030.¹¹³

There is however 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.¹¹⁴ 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.

¹¹⁰ S.C. Rockefeller, *The Earth Charter*, p. 4, available at <http://users.clas.ufl.edu/bron/pdf--christianity/Rockefeller-Earth%20Charter.pdf> [Accessed on 24/10/2015].

¹¹¹ Ministry Of Environment, Water and Natural Resources, Draft National Climate Change Framework Policy (Version of 22 September, 2014), *Sessional Paper No. ** of 2014 on National Climate Change Framework Policy*, p. 4 (Government Printer, Nairobi, 2014).

¹¹² Climate Change Bill, Clause 3(a) (Government Printer, Nairobi, 2014).

¹¹³ Ministry Of Environment, Water and Natural Resources, Draft National Climate Change Framework Policy (Version of 22 September, 2014).

¹¹⁴ See generally, Lang W, 'UN-Principles and International Environmental Law' (1999) 163 Max Planck UNYB 157.

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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, the 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.¹¹⁵

The United Nations Conference on Sustainable Development, Rio+20 conference participants recognized that farmers, including small-scale farmers and fisherfolk, pastoralists and foresters, can make important contributions to sustainable development through production activities that are environmentally sound, enhance food security and the livelihood of the poor and invigorate production and sustained economic growth.¹¹⁶ Such an approach that integrates the efforts of the locals can go a long way in guaranteeing sustainability since they also act as incentives for the communities to shun unsustainable methods of production and utilisation of resources. It would also play a big and positive role in ensuring that there is equitable sharing of the accruing benefits.¹¹⁷

In promoting sustainable agriculture and rural development, Agenda 21 provides that major adjustments are needed in agricultural, environmental and macroeconomic policy, at both national and international levels, in developed as well as developing countries, to create the conditions for Sustainable Agriculture and Rural Development (SARD). The major objective of SARD is to increase food production in a sustainable way and enhance food security. This will involve education initiatives, utilization of economic incentives and the development of appropriate and new technologies, thus ensuring stable supplies of nutritionally adequate food, access to those supplies by vulnerable groups, and production for markets; employment and income generation to alleviate poverty; and natural resource management and environmental protection.¹¹⁸

In areas where communities largely depend on agriculture for livelihood, there is need to create awareness for the diversification of economic activities, and effective agriculture and production methods. Communities, especially those living in ecologically susceptible areas need to be encouraged to engage in

¹¹⁵ 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].

¹¹⁶ United Nations Conference on Sustainable Development, Rio+20, Clause 52.

¹¹⁷ Benefit Sharing Bill, 2014 contemplates public and community participation in benefits sharing.

¹¹⁸ Para. 14.2.

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economically viable but environmentally friendly activities. Those that rely exclusively on livestock keeping should be supported to come up with efficient but sustainable production methods that will ensure higher yields while conserving the environment. They should be engaged in planting and nurturing dryland forests which will not only help in environmental restoration but also ensure there will be enough resources for their use.

The Ministry of Environment and Natural Resources, in collaboration with the Ministry of Water and the County governments, can put in place a sustainable plan for supplying water both from the national water reservoirs and drilled boreholes. This will serve the purpose of supporting economic activities as well as supporting reforestation efforts. Such measures should also be accompanied by soil conservation measures.

The *National Land Reclamation Policy*¹¹⁹ was informed by the fact that over 80% of Kenyan land surface that include the Arid and Semi-Arid Lands (ASALs) is fragile and has a population of about 11 million people, the great majority of who live below the poverty line and suffer effects of widespread aridity, acute food and water shortage, as well as general insecurity.¹²⁰ The remaining 20% of Kenya land mass is non-ASALs and is arable land often referred to as high potential or humid areas, in which the most affected areas are located in hilly and mountainous regions experiencing de-vegetation or clear cutting of forests, diminishing soil fertility due to poor soil management or cultivation on steep slopes, among other impacts.¹²¹

In efforts to combat land degradation through, inter alia, intensified soil conservation, afforestation and reforestation activities, Agenda 21 requires governments to, inter alia: implement urgent direct preventive measures in drylands that are vulnerable but not yet affected, or only slightly desertified drylands, by introducing (i) improved land-use policies and practices for more sustainable land productivity; (ii) appropriate, environmentally sound and economically feasible agricultural and pastoral technologies; and (iii) improved management of soil and water resources; carry out accelerated afforestation and reforestation programmes, using drought resistant, fast-growing species, in particular native ones, including legumes and other species, combined with community-based agroforestry schemes.

Further, the Governments at the appropriate level, with the support of the relevant international and regional organizations, are expected to, inter alia: develop land-use models based on local practices for the improvement of such practices, with a focus on preventing land degradation. The models should give a better understanding of the variety of natural and human-induced factors that may contribute to

¹¹⁹ The Ministry Of Water and Irrigation, *National Land Reclamation Policy*, February 2013 (Government Printer, Nairobi, 2013).

¹²⁰ P. 8.

¹²¹ Ibid; See also Republic Of Kenya Ministry Of Environment, *Water And Natural Resources, Draft National Forest Policy, 2015*. (Government Printer, Nairobi, 2015).

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desertification. Models should incorporate the interaction of both new and traditional practices to prevent land degradation and reflect the resilience of the whole ecological and social system; develop, test and introduce, with due regard to environmental security considerations, drought resistant, fast-growing and productive plant species appropriate to the environment of the regions concerned.¹²² Community participation in dealing with land degradation is one of the effective ways and channels through which such traditional knowledge on sustainability can be tapped to enhance environmental health and security. They are also in a better position to implement measures directed at eliminating human induced factors that may contribute to environmental degradation.

From the various international environmental instruments, it is important that land degradation problem be addressed urgently, by tackling the contributing factors which include inappropriate anthropogenic activities such as clear-cutting of forest and other vegetation, logging and firewood gathering, bush encroachment, invasion of alien species, charcoal production, mining, human settlement, infrastructural and industrial development, uncontrolled fires, livestock overstocking and overgrazing, among others.¹²³ These problems cannot be addressed through legislation without taking tangible measures, in collaboration with the local communities to tackle them. It is time to go beyond legislation and involve the people who are directly affected in coming up with lasting and effective measures.

A former Cabinet Secretary, Ministry of Water and Irrigation, in the *National Land Reclamation Policy* observed that sensitizing communities to use sustainable agricultural practices and technologies in order to reduce extensive cultivation associated with low input agriculture, is a pragmatic action to discouraging wanton clearance of forest resources.¹²⁴ She went further to state that while ensuring propagation of farm woodlots, the government will perpetually promote use of improved cooking stoves and green energy like geothermal, wind, solar, and biogas; to stop reliance on wood fuel and charcoal for cooking and heating. These strategies will translate into up-to 10% forest cover and its robust conservation thus increasing carbon storage as well as cutting on greenhouse gases to mitigate effects of climate change such as increased frequency and magnitude of many types of extreme events, including floods, droughts and tropical cyclones.¹²⁵ One way of achieving this would be innovation and creativity to actualize the use of improved cooking stoves and green energy like geothermal, wind, solar, and biogas, which will in turn facilitate job creation and improved production and consumption methods.

The Ministry can work with various stakeholders to realise such objectives. Indeed, the Ministry of Environment and Natural Resources is well aware of this and what is required is action. The Environment Permanent Secretary, is on record as stating that there is need to improve adaptive capacities

¹²² Para. 12.19.

¹²³ Ibid, p. 8.

¹²⁴ Ibid, p. 2.

¹²⁵ Ibid.

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for communities through existing indigenous knowledge in combating the impacts of climate change. He observed that the use of such knowledge is critical in identifying and disseminating innovations which enhance food productivity in the face of climate change.¹²⁶ 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. In the long term plans, the state should put in place adequate measures to address the chronic poverty in some regions through integrated measures that boost economic status of the people while ensuring environmental sustainability.

Public participation in the management, protection and conservation of the environment, coupled with the protection of genetic resources and biological diversity can be one of the effective ways of achieving environmental security for the present and future generations. It is also an effective way of identifying and eliminating processes and activities that are likely to endanger the environment 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).¹²⁷ 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.

With adequate and meaningful participation in decision making and environmental conservation, all factions in the society feel appreciated and have a sense of belonging. They are also able to voice and address their concerns in diplomatic ways that in turn boost security in a country. If the recurrent resource-based conflicts in the Northern parts and North Rift regions of country are to be permanently addressed, then the environmental resource scarcity in the areas must be dealt with to eliminate the environmental scarcity pressure. With all parties having adequate resources for their livelihoods, none of the communities feel any pressure to attack their neighbours as it is the case with scarce resources. Lasting security solution in some of these areas is closely associated with environmental security.

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. This will not only boost

¹²⁶ 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].

¹²⁷ See the *East African Community Protocol on Environment and Natural Resources Management*, 2005. Art. 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.

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efficiency but will only curb corruption and ensure better management of the funds. 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), 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.¹²⁸ The objectives of the SEA process are 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.¹²⁹ 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.¹³⁰ 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.¹³¹ 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.¹³²

These exercises should not be just a matter of formality and paper work.¹³³ The affected communities should be afforded an opportunity to meaningfully participate and give feedback on the likely effects on social, economic and environmental aspects of the community.

¹²⁸ Environmental protection Agency, 'Strategic Environmental Assessment,'

available at <http://www.epa.ie/monitoringassessment/assessment/sea/#.Vi5tmGuJ2CA> [Accessed on 26/10/2015].

¹²⁹ Ibid; See also the *Environmental (Impact Assessment and Audit) Regulations, 2003*, Legal Notice 101 of 2003, Regulations 42, 43 & 47.

¹³⁰ *Environmental Management and Co-Ordination Act*, No 8 of 1999 (Government Printer, Nairobi, 1999), s.2.

¹³¹ Ibid.

¹³² 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 shall, 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. If fully implemented, this is a positive step towards achieving environmental security for all.

¹³³ See generally, 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 26/10/2015]; 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

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Art. 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. Courts have a great and important role to play in facilitating realisation and safeguarding of environmental security. They should be driven by not only anthropocentric arguments for environmental conservation but also ecocentric justifications.

An ecocentric approach to environmental conservation was witnessed in the Tanzanian case of *African Network for Animal Welfare (ANAW) v The Attorney General of the United Republic of Tanzania*,¹³⁴ where the Africa Network for Animal Welfare (ANAW), a Kenya non-profit organization, filed a case in the East Africa Court of Justice (EACJ) challenging the Tanzanian government's decision to build a commercial highway across the Serengeti National Park. On June 20, 2014, the court ruled that the government of Tanzania could not build a paved (bitumen) road across the northern section of the Serengeti, as it had planned. It issued a permanent injunction restraining the Tanzanian government from operationalising its initial proposal or proposed action of constructing or maintaining a road of bitumen standard across the Serengeti National Park subject to its right to undertake such other programmes or initiate policies in the future which would not have a negative impact on the environment and ecosystem in the Serengeti National Park. This was also the case in *In Peter K. Waweru v Republic*,¹³⁵ where 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.¹³⁶

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

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 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.

¹³⁴ Reference No. 9 of 2010.

¹³⁵ [2006] eKLR, Misc. Civ. Applic. No. 118 of 2004.

¹³⁶ p.14.

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damage. Courts can work closely with such the local bodies to adequately and peaceably address conflict or disputes. For instance, the proposed legislation, *Irrigation Bill 2015*,¹³⁷ provides for dispute resolution mechanisms in context of irrigation water user associations and provides for mechanisms for appeal and review by the Environment and Land court. In such instances, the court can ensure that environmental justice is served. 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 the law. Achieving environmental security requires the concerted efforts of all stakeholders and collaboration between the various interested parties and decision-makers.

8. Conclusion

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. Further, as it has been argued in this paper, achieving peace in the country is pegged on a number of issues, one of which is ensuring human security through guaranteed enjoyment of environmental goods and services for all. 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.

¹³⁷ This is a National Assembly Bill to amend and consolidate the law relating to sustainable development and management of irrigation for socio-economic development in the country; to align existing irrigation laws to the Constitution of Kenya 2010, to repeal the Irrigation Act, Chapter 347 of Laws of Kenya; and for purposes incidental thereto and connected therewith.

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