UNIVERSITY OF NAIROBI

USE OF ALTERNATIVE DISPUTE RESOLUTION TO SETTLE CONFLICTS FROM INFRASTRUCTURAL DEVELOPMENT ACTIVITIES: A CASE STUDY OF STANDARD GAUGE RAILWAY PROJECT IN NAIROBI NATIONAL PARK

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Thesis submitted to the University of Nairobi in partial fulfillment of the requirements for the award of Masters of Arts in Environmental Policy Degree.

DECLARATION

I, Gitari Elizabeth Wanjiku, do hereby declare that this is my original work and has no
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Dedication

This work is dedicated to the loving memory of my late grandfather, Mzee Mathew Njagi Munyi. Your sacrifice to forego law school in order to fend for my farther has since born fruit. Your wise words of counsel to always finish the race will always ring true in my life. You were there when I started, and I am proud that no matter how long it took, I have run the race to its end.

Abstract:

This work looks at the consequences of litigation and alternative dispute resolution to settle conflicts from development activities that impact environmental conservation. Conflicts emerging from implementation of different sustainable development goals have undoubtedly increased over the last decade. specifically, the implementation of SDG 9 that seeks to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation has often times conflicted with the implementation of SDG 15 that seeks to protect, restore and promote sustainable use of terrestrial ecosystems sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Alternative dispute resolution mechanisms have steadily spread to be used in resolving environmental matters. Alternative dispute resolution is generally considered a better method of dispute resolution as it saves time and financial resources compared to litigation¹. Environmental disputes often arise because of conflicting views over what constitutes sound policy for the environment. Often, stakeholders have different stakes in the outcome regarding the environmental conflict. Equally, stakeholders in environmental conflict have different ideas of how the resources should be managed and allocated².

The main purpose of this study is to evaluate the use of alternative dispute resolution to settle conflicts from development activities in the Nairobi National Park. The study assessed the level of application of ADR in conflict resolution involving sustainable development disputes. The analysis revealed that ADR has not been applied to resolve the disputes resulting from the SGR development in the NNP. These findings are similar to those of a research that looked at the resolution of disputes arising from major infrastructure projects in developing countries whereby it was found that the use of ADR mechanisms is minimal and scanty evidence is available on their application³. In this study, the findings indicate that the various stakeholders involved in the matter have only considered litigation to resolve the issue. Several challenges were found to limit the application of ADR in resolving conflicts emanating from development activities in protected areas in Kenya. The challenges included the lack of proper backing of streamlined ADR utilization in the Kenyan environmental laws, lack of capacity development in terms of ADR experts at high levels of governmental decision making, lack of adequate investment in ADR mechanisms in terms of capacity and financing, lack of avenues and platforms for practicing ADR, and the failure by the Kenyan judiciary to promote the use of ADR in sustainable development disputes in Kenya. Additionally, litigation as a method of dispute resolution primarily focused on procedural issues (such as lack of EIA certification, non-compliance with EIA certificate conditions and lack of public participation). However, the complexities fronted by infrastructural development and indeed infrastructural development in the Nairobi National Park are ecological complexities that affect the integrity of the park's biodiversity. Such complex issues stand a better chance of resolution through less combative dispute resolution mechanisms such as ADR, where the goal is to find an amicable solution as opposed to winning a court case.

¹ Ryan, Michelle. "Alternative Dispute Resolution in Environmental Cases: Friend or Foe?" Tulane Environmental Law Journal, 1997.

² Ibid

³ Mante, Joseph, Ndekugri, I, and Ankrah, Nii. Resolution of Disputes Arising From Major Infrastructure Projects in Developing Countries. COBRA 2011 - Proceedings of RICS Construction and Property Conference. 104-116 (2011).

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List of Abbreviations

ADR Alternative Dispute Resolution

CoK Constitution of Kenya

EDR Environmental Dispute Resolution

EMCA Environmental Management and Coordination Act

FAO Food and Agricultural Organization

FMCS Federal Mediation and Reconciliation Services

KRC Kenya Railways Corporation

KWS Kenya Wildlife Service

NEMA National Environmental Management Authority

NNP Nairobi National Park

PCC Public Complains Committee

SGR Standard Gauge Railway

UN United Nations

UNECE United Nations Economic Commission for Europe

UNEP United Nations Environmental Programme

UNESCO United Nations Educational Scientific and Cultural Organization

USA United States of America

USAID United States Agency for International Development

CHAPTER ONE

INTRODUCTION

1.1. Background

Conflicts have been on the increase globally because of the growing world population, limited resources, and impacts of climate change¹. Almost all of these conflicts are due to variations in priorities regarding the utilization of resources among communities, governments, industrialists and other groups within the society. Competing interests over environmental resources such as water, land, forests, and minerals² give rise to environmental disputes. Additionally, these environmental conflicts are often multifaceted and difficult to resolve due to the multiple parties involved and the complexity of the legal and institutional frameworks³. Moreover, the typical environmental conflict is usually dynamic in nature and usually characterized by new challenges arising in the course of dispute resolution⁴. These problems coupled with the challenges of the legal and justice system make many environmental disputes arising from development projects remain unsolved while others are unfairly resolved. A

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¹ Heikkila, Tanya, and Edella C. Schlager. 2012. "Addressing the Issues: The Choice of Environmental Conflict-Resolution Venues in the United States." *American Journal of Political Science* 56 (4): 774–86. doi:10.1111/j.1540-5907.2012.00588.x.

² Muigua, Kariuki. Empowering the Kenyan People through Alternative Dispute Resolution Mechanisms. Paper Presented at the CIArb Africa Region Centenary Conference 2015, (2015)

³ Bingham, Gail, and LV Haygood. 1986. "Environmental Dispute Resolution: The First Ten Years." *The Arbitration Journal* 41 (4): 3–14.

http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Environmental+Dispute+Resolution:+The+First+Ten+Years#2\nhttp://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Environmental+Dispute+Resolution:+The+First+Ten+Years#1.

⁴ Crable, Stephen. 1993. "A Solution for Environmental Disputes." *Arbitration Journal* 48 (1): 24. http://uic.gtbib.net/gtbib.php?aplicacion=sod&tipo=consulta&plantilla=usuario_peticiones.php&tabla=peticiones&relaciones[]=peticiones_refbib&pestanya=&campo=PETICION&texto=12405831&operadores[sod_peticiones.CODI_USU]=IGU&campos[sod_peticiones.CODI_USU]=!C.

number of alternatives to litigation have been suggested for settling these and they include alternative dispute resolution (ADR) mechanisms such as, negotiation, collaborative law, arbitration, negotiations, and conciliation⁵.

Alternative dispute resolution are processes and techniques that act as a means of disagreeing parties to come to an agreement short of litigation⁶, which is often costly⁷. Alternative dispute resolution is a useful option for resolving environmental conflicts for it has proven to enhance access to justice, promote affordability and reduce delays and backlogs within the legal system in several jurisdictions. Alternative dispute resolution methods are participatory and more cost effective compared to the conventional environmental conflict resolution techniques⁸.

Normally, the courts serve as the conventional forum for the resolution of many types of conflicts. However, with the technicalities and publicity linked with litigation, ADR has risen as an alternative to the lengthy and costly court procedures. Alternative dispute resolution approaches are broad and intended to complement the conventional courts litigations by providing more effective and quicker resolution process⁹. One such area where ADR could be used is in the resolution of infrastructural development conflict is

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⁵ Ryan, Michelle. "Alternative Dispute Resolution in Environmental Cases: Friend or Foe?" *Tulane Environmental Law Journal*, 1997

⁶ Tianbao, Qin. 2015. Research handbook on Chinese environmental law. Cheltenham: Edward Elgar Pub. Ltd.

⁷ Muigua, 2015, Empowering the Kenyan People through Alternative Dispute Resolution Mechanisms.

⁸ Heikkila and Edella, 2014 pp. 775-784.

⁹ Joseph, Nwazi. 2017. "Assessing the Efficacy of Alternative Dispute Resolution (ADR) in the Settlement of Environmental Disputes in the Niger Delta Region of Nigeria." *Journal of Law and Conflict Resolution* 9 (3): 26–41. https://doi.org/10.5897/jlcr2016.0254.

the standard gauge railway (SGR) and the conservation of Nairobi National Park (NNP) in Kenya.

The Nairobi National Park (NNP) was founded in 1946 and the second most visited park in Kenya, receiving over 150,000 visitors annually. The park is located at the center of grazing regions and the highland area and it separated from these areas by a fence. On the Northern side, the Embakasi River separates the Park from residential areas while the Kitengela area occurs on the Southern. Previously, Kitengela was part of the Kitengela conservation area which was later lost to development. Kitengela was joined to the Ngong National Reserve that was adjacent to the NNP. Another significant part of the NNP is the Athi-Kaputei Plains known for the migratory of several species to and from the NNP¹⁰. The NNP covers an area of 2,200 km² and bonders the Rift valley on the west and a railway line on the east and the southern borders respectively.

The NNP is one of the largest ecosystems in Nairobi region and encloses wildlife that would otherwise disperse up to Amboseli, Narok, Machakos, and Oldonyo Sabuk. The NNP has been facing many threats since its inception in 1946, including poaching and human encroachment. However, recent and rapid urbanization and infrastructure development around the part have put the park under unprecedented pressure¹¹ Land fragmentation around the NNP has already impeded the movement migration of zebras

¹⁰ SGR-IIA ESIA Habitat Planners. 2016.

¹¹ Wachira, A. 2015. "Is Kenya's Nairobi national park under threat?" African Business, 90-91.

and wildebeest from the park to the Kitengela plains and as a result led to the collapse of population of herbivores to a small fraction of their past abundance¹².

Kenya's SGR originates in Mombasa Island and is expected to traverse the country up to Malaba border with Uganda and link with Uganda's SGR. In phase one, the SGR project faced criticism because it passed through the Tsavo National Park. The issues raised in phase one are similar to those raised in phase 2A inside the NNP. They center on environmental sustainability of the park alongside infrastructure development. The Tsavo National Park provides a background of what could happen if the situation in the NNP is not resolved. Preliminary reports show that the railway line has disrupted elephant movement in the Tsavo National Park¹³. The report shows that the steep and man-made embankment along the railway line are obstructing elephant crossing. The Kenya Railways Corporation is proposing to do the same in the NNP. Railway tracks in the Tsavo National Pak have been raised in some sections to facilitate the crossing of wildlife; however, there are only a few bridges and underpasses under which the wildlife can pass. In 2016, the Save the Elephants, Tsavo Trust, and the Kenya Wildlife Services collared several elephants to help study the effects of the new SGR on wildlife movement¹⁴.

The Standard Gauge Railway (SGR) development has been undertaken across the Nairobi National Park. Opposition to the development have been raised for the SGR's

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¹⁴ Ibid.

¹² Ibid

¹³ Kushner, Jacob. 2016. "Controversial Railway Splits Kenya's Parks, Threatens Wildlife." *National Geographic*. http://news.nationalgeographic.com/2016/04/160412-railway-kenya-parks-wildlife/.

negative impacts on the environment. The situation in NNP could be worse than that in Tsavo because the park is already under immense pressure from urban development, climate change, and land fragmentation along the Athi-Kaputei Plains expanse. In addition, residential developments have come up in lands adjacent to the park to the south, while to the north, 53 acres of the NNP were allocated for the construction of a 28 kilometers southern bypass road, completed in 2016. One-hundred acres of the NNP land have been annexed for the expansion of the Standard Gauge Railway (SGR)¹⁵. In total over 153 acres of the NNP land have been annexed for infrastructure developments between 2015 and 2019 comprising the SGR and the Southern Bypass road. Therefore, additional fragmentation and disruption of the flora and fauna inside the NNP will endanger the wildlife further.

The SGR development pits conservationists on one hand who want to see the only national park in the world within a capital city saved and on the other hand government technocrats and politicians who want to see Kenya's position as the economic hub for East African secured through mega infrastructural development ¹⁶. Conservationists mainly consisting of NGOs including Friends of Nairobi National Park (FoNNaP) and the Conservation Alliance of Kenya (CAK) and activist Okiya Omtatah opposed the Phase 2A of the SGR openly through ligation in Kenyan courts. The central concern raised was that the Environmental Social Impact Assessment (ESIA) for development of SGR did not exhaustively address the ecological impacts on the NNP and no public participation

¹⁵ Kamau, Macharia. 2017. "Government starts acquiring 1,760 acres for railway to Naivasha." *The Standard*, Dec 27: Online

¹⁶ Wasuna, Brian. 2016. "Tribunal halts SGR construction over park." *Business Daily*, September 19, 2016 19: Online.

took place in relation to the project planning and choosing the route of the SGR. The NGOs opposed the development citing that the routing of the SGR through the NNP was fundamentally awry with Kenya's protected area laws. The CAK also cited that the ESIA was rushed, overlooked public participation or the process was inadequate and highly flawed because the KRC employees comprised the participating experts ¹⁷. ESIA is supposed to precede the commencement of a project; however, ground work for the Kenya's SGR Phase 2A, which connects Nairobi to Naivasha passing through the NNP commenced before the ESIA was disclosed and license issued which contravened EMCA and the Wildlife Act, 2013, Section 37 (c) ¹⁸.

The KWS negotiated with the KRC to raise the railway within the park to minimize the impacts of the SGR on the park. This is despite the fact that the Wildlife Act 2013, Section 30 forbids any activity likely to have adverse effects on the environment. The opposition to the SGR passing through the NNP is that the development will have social and environmental impacts if implemented¹⁹. Some of the impacts include ambient noise from the train and construction equipment over 85 decibels that might long-term effects on the wildlife and waste pollution²⁰.

In an effort to block this development, the Kenya Coalition for Wildlife Conservation and activist Okiya Omtatah sought litigation in 2016 as a means of addressing the dispute

Naivasha Industrial Park-Enoosupukia, Narok". http://www.conservationalliance.or.ke/wp-

¹⁷ Conservation Alliance of Kenya. 2016. "Letter to prof Wahungu, re ESIA Study for Proposed Standard Gauge Railway Project from Nairobi South Railway Station-

content/uploads/Consolidated-EIA-Comments-to-NEMA-DG-1.pdf

¹⁹ Ambani, Mildred. "GIS Assessment of environmental footprints of the standard gauge railway (SGR) on Nairobi National Park." *Master Thesis*. Nairobi: University of Nairobi, 2017.
²⁰ Ibid, p. 13.

by obtaining court orders barring phase two of the SGR²¹. In a petition in the High Court in Nairobi²², Okiya Omtatah, a Human Rights Activist and Executive Director Kenyans for Justice and Development (KEJUDE) Trust went to court to challenge the legality and constitutionality of the construction of the Standard Gauge Railway. Okiya Omtatah and others also challenged the projects citing its impacts on the NNP and the environment. In this case, the petitioners sought to know if the 1st Respondent ensured public participation in the management, protection and conservation of the environment and elimination of the processes and activities likely to endanger the environment, and established a system of environmental impact assessment, environment audit and monitoring of the environment. The petitioners argued that the diesel powered engines of the SGR locomotives would pollute the environment. Further, the petitioners argued that environmental impacts of the SGR project were not considered through consultation with stakeholders such as the Kenya Wildlife Service and Kenya Forest Service. They also submitted that the SGR project commenced without a valid Environmental Assessment Report as the law (Section 58 and 69 of the Environment Management and Coordination Act) mandates. The court ruled in favor of the respondents stating that the petition should have been filed in the National Environment Tribunal established under the National Environment Tribunal established under the Environmental Management and Coordination Act of 1999 (EMCA) as it is the specialized body acquainted with environmental issues. On whether the petitioners failed to consult, the court ruled that the petitioners failed to state under what

²¹ Wasuna, Brian. 2016. "Tribunal halts SGR construction over park." *Business Daily*, September 19, 2016 19: Online.

²² Okiya Omtatah Okoiti & 2 others v Attorney General & 3 others [2014], Petition No. 58 of 2014 (The High Court of Kenya At Nairobi November 21, 2014).

circumstances the first respondent was required to specifically consult stakeholders such as KWS.

The process of litigation has been ineffective as occasioned by delays, costs, and exclusion of the community and the continued construction of the SGR phase 2 despite the court order. In the NNP-SGR dispute ADR has not been considered. An ideal environmental dispute resolution process should be open, inexpensive, and effective but most of all adaptable to unique environmental disputes in a given situation²³. Alternative Dispute Resolution is a more applicable dispute resolution mechanism in environmental matters²⁴. It is important, therefore, to explore if ADR mechanisms can be applied to resolve the environmental disputes arising from the SGR development in Nairobi National Park.

1.2. Problem statement

Infrastructure remains a catalyst for economic growth. In developing nations, infrastructure developments are supporting economic growth and contributing to the transition of these nations to middle income economies. This increase in infrastructure projects is giving rise to an increasing frenzy to find vacant land for projects to ensure the minimum disruption of already existing human settlement infrastructure. Past

²³ van der Bank, M., and C. M. van der Bank. 2017. "Settling Environmental Disputes using Alternative Dispute Resolution strategies and the impact on tourism activity in South Africa." *African Journal of Hospitality, Tourism and Leisure* 6 (3): 1-11.

²⁴ Nwazi, Joseph. 2017. "Assessing the efficacy of alternative dispute resolution (ADR) in the settlement of environmental disputes in the Niger Delta Region of Nigeria." *J. Law Conflict. Resolut* 9 (3): 26-41. doi: https://doi.org/10.5897/JLCR2016.0254.

evidence shows that, biodiversity is lost at a high rate where changes in land-use and habitat fragmentation occur because of infrastructure developments²⁵.

An assessment on the status of biodiversity over the past decades done in Latin America has indicated that infrastructure development is a key enabler of biodiversity loss²⁶. The issue is particularly manifest in developing nations ardently pushing for economic development to realize middle income status, reduce poverty, and create employment among other benefits.

In acknowledgement of the need for quality infrastructure to the achievement of economic advancement, the Kenyan government is investing in transportation with the projects such as the LAPSSET project, SGR, Southern Bypass road, and Thika Super Highway project as examples. While infrastructure development projects are steering Kenya's development agenda, they are being associated with several controversies and challenges, more specifically the fight for space for biodiversity conservation vis a vis economic development.

In the case of NNP, litigation has been the only method adopted to resolve the conflicts involving sustainable development; however, the analysis revealed that it has been ineffective. Litigation has taken a long time as the petitions challenging the construction of the SGR through the NNP are still in court. Moreover, litigation has not stopped the proponents of the SGR from continuing with the project. The ineffectiveness of litigation has been because it came too late at a point when project had already began and the Kenyan justice system is influenced by bad politics.

²⁶ Ibid.

²⁵ Scolozzi, Rocco, and Davide Geneletti. "A Multi-Scale Qualitative Approach to Assess the Impact of Urbanization on Natural Habitats and Their Connectivity." *Environmental Impact Assessment Review* 36 (2012): 9–22. https://doi.org/10.1016/j.eiar.2012.03.001.

Moreover, there is a lack of political goodwill, the SGR is a major development initiative whose proponents are the Kenyan government and a Chinese infrastructure investment bank, and the cost of litigation has barred some of the affected stakeholders from perusing justice.

Therefore, this research sought to determine whether the utilization of ADR approaches would have been a better alternative compared to litigation. The study contributes to the field of knowledge by proposing and recommending how the Kenyan government can streamline policy to give room for the use of ADR in resolving environmental conflicts. Moreover, the study helped determine the effectiveness and efficiency of ADR in resolving the ongoing Nairobi National Park land dispute. Alternative dispute resolution measures have proved effective in other settings; hence, are likely to facilitate the existing disputes. The use of ADR would also promote the success of future development initiatives by the government and pave way for resolving the historical land injustices in Kenya.

1.3. Research Questions

The research will answer the following questions:

- 1. To what extent is ADR used to resolve infrastructure development versus environmental conservation disputes such as in the Nairobi National Park?
- 2. Would the use of ADR mechanisms in the resolution of the environmental dispute surrounding the SGR development in the NNP have yielded different outcomes?
- 3. How can the policy framework mainstream the use of ADR in ensuring sustainable development amidst environmental concerns?

4.

1.4. Research Objectives

- 1. Assess the level of application of ADR in conflict resolution involving infrastructure development versus environmental conservation disputes.
- 2. Compare and contrast advantages of use of ADR in sustainable development conflict resolution
- 3. To assess a policy solution to streamline the use of ADR in environmental protection versus infrastructural development conflicts in Kenya

1.5. Justification of the Study

The evidence and arguments put before the court determines the outcome in the adversarial system. In litigation, the duty of the courts is not to decide on grounds or sense, but purely on the basis of the evidence and arguments put before the court. Many disputes are not basic in nature, yet in litigation the court tends to rule on the balance of probabilities²⁷. In litigation, the balance may be inclined one way by strict legal principles. Moreover, the adversarial system also embodies ways of delays, increasing the cost, and uncertainty of the outcomes and this has been witnessed in court cases involving phase 2A of the SGR in Kenya. The adversarial nature of the litigation process means it is time consuming and procedure oriented and these makes it deficient in addressing some matters. In contrast, ADR is seen as an alternative to litigation as it de-professionalizes dispute settlements²⁸ by associating mechanisms that are participatory especially to lay persons; thus, imploring a sense of justice and fair

²⁷ Khan, Sarfaraz Ahmed. *Lok Adalat: An Effective Alternative Dispute Resolution Mechanism*. New Delhi: A.P.H. Pub. House, 2006, 15.

²⁸ Ibid.

play. Alternative dispute resolution mechanisms are preferred to litigation because they provide justice to the masses and are the proper mechanisms for certain categories of cases that entail reaching a negotiated understanding²⁹.

The parties opposed to phase 2A of the SGR passing through the Nairobi National Park in Kenya, sought litigation exclusively. Litigation has been associated with delays and lack of participation of the public suggesting its deficiency in resolving the said dispute. Alternative dispute resolution is the only alternative to litigation³⁰; however, even with the noted deficiencies of litigation, ADR has not been used to resolve the dispute surrounding SGR development. The challenge around the resolution of this dispute that necessitates ADR is that the litigation process has been inaccessible to the lay persons affected by the project and has failed to harmonize the relationship between the disputing parties for an amicable settlement. Moreover, the problem in question necessitates developing options for finding solutions, which litigation does not provide since it is procedural. Through the litigation process, the court hands down/imposes the decision denying the involved parties the chance to be responsible for their decision. Many settings have applied Alternative Dispute Resolution approaches in resolving infrastructural development disputes in protected areas and they have proven to offer solutions that are more effective to such matters. ADR mechanisms seek to provide cheap, simpler, quicker and accessible justice compared to the expensive litigation process³¹. It would also provide a way that access to justice is enhanced in the Kenyan

²⁹ Ibid.

³⁰ Ordover, Abraham P., and Andrea Doneff. *Alternatives to Litigation: Mediation, Arbitration, and the Art of Dispute Resolution*. 2014.

³¹ Khan, Sarfaraz Ahmed. *Lok Adalat: An Effective Alternative Dispute Resolution Mechanism*. New Delhi: A.P.H. Pub. House, 2006.

population, which is currently minimal in the current system³². Additionally, these methods are flexible as the interested parties are in some cases given the freedom to communicate and develop the most appropriate decisions. As a result, the relationships between individuals and parties involved are preserved. Therefore, this approach may be the most effective in resolving the Nairobi National Park environmental vs. developmental disputes, since the involved stakeholders have not reached an amicable solution towards the issues. On the one hand, conservationists are calling for the conservation of the Park while on the other hand; the Kenyan government and its development partners are keen on pursuing the Standard Gauge Railway project as part of Kenya's Vision 2030 economic development agenda.

This research is indispensable in determining whether there would be any significant difference in the outcome, were ADR mechanisms used in the resolution the environmental dispute surrounding the SGR development in the NNP as opposed to litigation which was sought as a means of resolving this dispute.

1.6. Theoretical Framework

The research will be based on the environmental economics theory. The basic economic principles underpin environmental economics³³. The environmental economics theory holds that ecosystems and natural resources may be exhausted in the pursuit of economic development along the cost benefit principles. With each cost there are externalities, and in the case of the environment these may be pollution, waste, degradation of ecosystems, and exhaustion of natural resources. The theory draws on the principle that it is possible to realize optimal economic development

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³² Muigua and Francis 2015.

³³ Endres, Alfred. *Environmental Economics: Theory and Policy*. Cambridge: Cambridge University Press, 2011.

through an efficient economic system that accurately considers the role of environmental ecosystems. Environmental economics strive to ensure that the environment is valued as a key contributor to the entire human wellbeing and economic development goals.

Environmental economics seeks to put a value on ecosystems to re-balance the market failure stemming from adverse externalities. Environmental economics places monetary value on ecosystem services making it possible to quantify the impacts of pollution by carrying out a cost-benefit analysis³⁴.

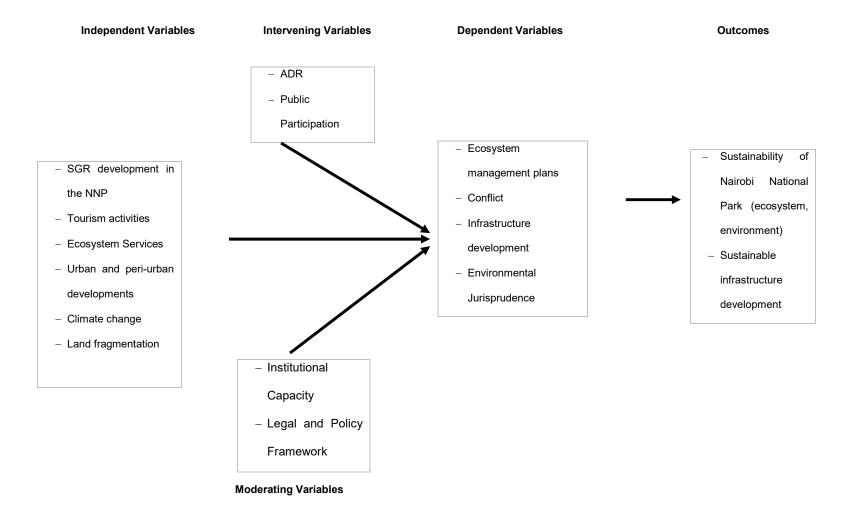
The environmental economics acknowledges that the existing stock of natural capital is exhaustible and that limits exist at which point the destruction will adversely impact the economic system. The environmental economics theory is concerned with ways to manage the finite natural resources on Earth. The theoretical approaches can be applied to inform environmental policy. The environmental economics model places emphasis on the use of market-based tools for policy making. The efforts to put a monetary value on environmental effects, and charge those that damage the ecosystems accordingly, are in line with the philosophies of identifying and appreciating the influence of the economy on the environment. Moreover, applying the principle of environmental economics in policy making could create positive impacts for sustainable development through tools that bring about both environmental benefits and encourage economic growth.

The environmental economics theory relates to the environmental issue facing the Nairobi National Park because it influences how environmental policy is driven forward.

³⁴ Pearce, D.W. "An Intellectual History of Environmental Economics", Annual Review of Energy Environments, 2002, 27: 57-81.

The environmental economics seeks to affix value to natural resources and environments. The environmental economics are based on the market premise and position natural capital along with other types of capital in considering costs and benefits. Therefore, this research draws upon the environmental economics theory as it emphasize on limiting human effect on the natural environment because of its finite nature and unknown effects and seeking ways for continuing economic development while minimizing environmental impacts through compensation.

1.7. Conceptual Framework



2. CHAPTER TWO: LITERATURE REVIEW

2.1 Overview

The chapter includes a review of past literature on environmental ADR. In this chapter what is ADR, where it has been applied in the world, alternative mechanisms, approaches used in the past to resolve environmental problems and their progress, policy and institutional infrastructure and their adequacy or inadequacy in supporting ADR and the applicability of ADR in resolving the environmental problem facing the NNP because of the construction of the SGR will be discussed. Moreover, Kenya's Environmental Policy Framework and literature on the impacts of infrastructure developments on the environment will be reviewed.

2.2 Infrastructure and development

2.2.1 Impact of Development Projects on Environment

Infrastructure and other types of development have major environmental impacts including destruction to sensitive bionetworks, resettlement of populations, demographic change, accelerated urban growth, and introduction of disease and invasive plant species¹. Road developments in forested and grasslands cause surface erosion, contamination of off-site waters² direct habitat loss through land conversion processes³

¹ Meunier, Geneviève, and Claude Lavoie. "Roads as Corridors for Invasive Plant Species: New Evidence from Smooth Bedstraw (Galium Mollugo)." *Invasive Plant Science and Management* 5, no. 01 (2012): 92–100. https://doi.org/10.1614/ipsm-d-11-00049.1.

² Ramos-Scharrón, Carlos E., and Lee H. MacDonald. "Runoff and Suspended Sediment Yields from an Unpaved Road Segment, St John, US Virgin Islands." *Hydrological Processes* 21, no. 1 (2007): 35–50. https://doi.org/10.1002/hyp.6175.

and indirect habitat loss through ecosystem fragmentation⁴. Infrastructure development leads to economic losses as forested areas are cleared and change of environmental conditions. The developments also results in ecological imbalances that impact wildlife populations⁵ as most infrastructure involve the clearance of native vegetation within the development boundaries. Infrastructure developments often cause severe environmental impact to neighboring ecosystems because earth moving activities often disturb entire watersheds⁶. Other infrastructures built through soil and rock excavation lead to serious environmental impacts by disturbing the soil, base rock, and vegetation habitats.

Ecological pollution is a major concern in the construction industry because of the huge amount of pollution caused by development projects. Infrastructure developments are linked to high rate of emissions that vary from the beginning, implementation, and until the completion of the project. Taking into account the roads life cycle, the primary energy sources, fossil fuels, are consumed by machinery during construction and after construction vehicles and cars that use roads and railways contribute to significant

³ Geneletti, Davide. "Biodiversity Impact Assessment of Roads: An Approach Based on Ecosystem Rarity." *Environmental Impact Assessment Review* 23, no. 3 (2003): 343–65. https://doi.org/10.1016/S0195-9255(02)00099-9.

⁴ Chen, Hui, Shuang Cheng Li, and Yi Li Zhang. "Impact of Road Construction on Vegetation alongside Qinghai-Xizang Highway and Railway." *Chinese Geographical Science* 13, no. 4 (2003): 340–46. https://doi.org/10.1007/s11769-003-0040-5.

⁵ Laurance, Susan G.W., Philip C. Stouffer, and William F. Laurance. "Effects of Road Clearings on Movement Patterns of Understory Rainforest Birds in Central Amazonia." *Conservation Biology* 18, no. 4 (2004): 1099–1109. https://doi.org/10.1111/j.1523-1739.2004.00268.x.

⁶ Demir, Murat, Ender Makineci, and Ersel Yilmaz. "Investigation of Timber Harvesting Impacts on Herbaceous Cover, Forest Floor and Surface Soil Properties on Skid Road in an Oak (Quercus Petrea L.) Stand." *Building and Environment* 42, no. 3 (2007): 1194–99. https://doi.org/10.1016/j.buildenv.2005.11.008.

environmental pollution. Earthworks in infrastructure development projects contributes 60-85% of the total emissions⁷.

Infrastructure development projects are increasingly common in contemporary world as human population expands. These developments are taking place in forested areas, grasslands, and woodlands, causing direct impact on the environment such as pollution and indirect environmental impacts such as habitat fragmentation⁸. Habitat fragmentation interrupts and modifies natural processes, changing structures of communities and population dynamics. Wildlife is extremely vulnerable to habitat fragmentation as roads and railways present a major barrier to animal movements. With habitat fragmentation either animals are unable to cross the road without being knocked down or avoid the road/railways altogether⁹ and this affects breeding patterns¹⁰ and gene flow of species¹¹. Development projects such as roads and railways act as barriers to migratory patterns and block animals from accessing particular habitats. A road developments near turtles breeding sites was showed to prevent pregnant females from getting to their preferred nesting places and thus affecting the survival of the species as

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⁷ Marzouk, Mohamed, Mohamed El-zayat, and Ahmed Aboushady. "Assessing Environmental Impact Indicators in Road Construction Projects in Developing Countries." *Sustainability (Switzerland)* 9, no. 5 (2017). https://doi.org/10.3390/su9050843.

⁸ Goosem, Miriam. "Fragmentation Impacts Caused by Roads through Rainforests." *Current Science*, 2007.

⁹ Reijnen et al.1995, Forman and Deblinger 2000, Eigenbrod et al.2009. "Roads and Wildlife: A Study of the Effects of Roads on Mammals in Roadside Habitats." *PhD-Thesis, Faculty of Science of the University of Birmingham*, no. September (2002): 276. http://core.kmi.open.ac.uk/download/pdf/77855.pdf.

Shine, Richard, Michael Lemaster, Michael Wall, Tracy Langkilde, and Robert Mason. "Why Did the Snake Cross the Road? Effects of Roads on Movement and Location of Mates by Garter Snakes (Thamnophis Sirtalis Parietalis)." *Ecology and Society* 9, no. 1 (2004). https://doi.org/10.5751/ES-00624-090109.

¹¹ Clark, Rulon W., William S. Brown, Randy Stechert, and Kelly R. Zamudio. "Roads, Interrupted Dispersal, and Genetic Diversity in Timber Rattlesnakes." *Conservation Biology* 24, no. 4 (2010): 1059–69. https://doi.org/10.1111/j.1523-1739.2009.01439.x.

the turtles were relegated to suboptimal locales where egg predation was higher ¹². Besides fragmenting habitat, a road development in woodlands and forested area alters the natural habitat by creating an edge habitat along the peripheries the road. This has been shown to increases predation rates on bird nests because of the reduced forest canopy ¹³.

Development projects are a leading cause of air, land, and water pollution. Development projects such as road and rail predispose the environment to the impacts of vehicular pollutants. With the opening up of areas by roads and rail, air quality changes as motorized transport add new emissions and suspended particles from dust and tail-pipe emissions. The quality of local air changes because of an increase in nitrogen oxide and carbon dioxide as well as particulate matter that comes from emissions of vehicles on the road¹⁴. The pollutants impacts humans and many species, and ecosystems¹⁵.

Roads developments enhance or impede the dispersal of fauna and flora. Well-designed infrastructures can contribute to movement of wildlife and plant dispersal resulting in the expansion of range and dispersion between core environments. Well-designed roads with wildlife crossings, such as culverts facilitate the migration of

¹² Baldwin, Elizabeth A., Michael N. Marchand, and John A. Litvaitis. "Terrestrial Habitat Use By Nesting Painted Turtles In Landscapes With Different Levels of Fragmentation." *Northeastern Naturalist* 11, no. 1 (2006): 41–48. https://doi.org/10.1656/1092-6194(2004)011[0041:thubnp]2.0.co;2.

¹³ Sosa, Ramón Alberto, and Javier Lopez de Casenave. "Edge Effect on Bird Nest Predation in the Fragmented Caldén (Prosopis Caldenia) Forest of Central Argentina: An Experimental Analysis." *Ecological Research* 32, no. 2 (2017): 129–34. https://doi.org/10.1007/s11284-016-1421-4.

¹⁴ Kim, Janice J., Svetlana Smorodinsky, Michael Lipsett, Brett C. Singer, Alfred T. Hodgson, and Bart Ostro. "Traffic-Related Air Pollution near Busy Roads." *American Journal of Respiratory and Critical Care Medicine* 170, no. 5 (2004): 520–26. https://doi.org/10.1164/rccm.200403-281oc.

¹⁵ Bignal, Keeley L., Mike R. Ashmore, Alistair D. Headley, Kirstin Stewart, and Katherina Weigert. "Ecological Impacts of Air Pollution from Road Transport on Local Vegetation." *Applied Geochemistry* 22, no. 6 (2007): 1265–71. https://doi.org/10.1016/j.apgeochem.2007.03.017.

animals and critical habitats connectivity besides providing safe passage of wildlife across busy roads^{16, 17}.

Infrastructure, such as roads, lead to the introduction of exotic and invasive species. The introduction of invasive and exotic plant species occurs during clearing and use of the roads and rails, such as when vehicles are transporting exotic seeds into natural environments¹⁸. In addition, insects and pathogens can be introduced to new environments through vehicles¹⁹. In Bolivia, the opening of the high Andes by roads has led to the introduction of exotic plant species where the numbers are high in the vicinity of roads than far off the road²⁰.

Infrastructure developments including roads and railway have negative impacts on the sustainability of the environment. Kenya is pursuing infrastructure developments to spur up economic growth but in some cases at the expense of environment sustainability. The review of literature indicates that ADR mechanisms have been used to resolve environmental disputes in other parts of the world with success. The gap in research is that in Kenya the use of ADR to resolve environmental dispute is limited despite its provision in *Article 48* of the Constitution of Kenya. Only litigation was pursued in

¹⁶ Taylor, Brendan D., and Ross L. Goldingay. "Cutting the Carnage: Wildlife Usage of Road Culverts in North-Eastern New South Wales." *Wildlife Research* 30, no. 5 (2003): 529. https://doi.org/10.1071/wr01062.

Dodd, C. Kenneth, William J. Barichivich, and Lora L. Smith. "Effectiveness of a Barrier Wall and Culverts in Reducing Wildlife Mortality on a Heavily Traveled Highway in Florida." *Biological Conservation* 118, no. 5 (2004): 619–31. https://doi.org/10.1016/j.biocon.2003.10.011.

¹⁸ Barbosa, Newton P.U., Wilson W. Fernandes, Marco A.A. Carneiro, and Lélis A.C. Júnior. "Distribution of Non-Native Invasive Species and Soil Properties in Proximity to Paved Roads and Unpaved Roads in a Quartzitic Mountainous Grassland of Southeastern Brazil (rupestrian Fields)." *Biological Invasions* 12, no. 11 (2010): 3745–55. https://doi.org/10.1007/s10530-010-9767-y.

¹⁹ Christen, Douglas C., and Glenn R. Matlack. "The Habitat and Conduit Functions of Roads in the Spread of Three Invasive Plant Species." *Biological Invasions* 11, no. 2 (2009): 453–65. https://doi.org/10.1007/s10530-008-9262-x.

Fernández-Murillo, M. P., A. Rico, and P. Kindlmann. "Exotic Plants along Roads near La Paz, Bolivia." Weed Research 55, no. 6 (2015): 565–73. https://doi.org/10.1111/wre.12174.

resolving the environmental disputes surrounding the contentious issues raised with the construction of the SGR through the NNP. While both the proponents and opponents of the Phase 2A of the Kenya's SGR agree that the project is important, the opposition to the project has been mainly because the proponents have not engaged the public and other stakeholders adequately. Moreover, no party has sought conflict resolution outside the court system through other methods of dispute resolution, such as ADR. The SGR development in the NNP raised several environmental issues to which ADR could be applied to resolves. The study fills the gaps by indicating the way the use of ADR could have helped resolve environmental dispute.

2.2.2 Challenges facing the Nairobi national Park

The Nairobi National Park has been subject to environmental challenges that affect the wild animals, vegetation, and habitat. Wildlife resources provide important environmental services and goods for the livelihood of people. Poaching has been a great challenge in the Nairobi Park, but wildlife conservation is reversing the damage caused by poaching. Nairobi National Parks faces challenges from the urban development surrounding the park²¹. The challenges include the construction of railways, roads, factories, houses and water bodies. Water pollution is of particular concerns for the park²². A detergent manufacturing industry, Orbit Chemical Industry is located at the northeastern side of the park and it disposes off its waste through septic tanks that then flow Donga stream to the Athi basin dam²³. This is one of the most

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Nabwire, Celestine Agnes. "Challenges facing wildlife conservation in Nairobi." Nairobi, University of Nairobi, 2013.
²² Ibid

Nelson, James Gordon, and Rafal Serafin. *National parks and protected areas : keystones to conservation and sustainable development.* Berlin; New York: Springer, 2013.

important dams in the park as it never dries. Other pollution to the water bodies in the park is through effluents from Langata Army Barracks, the carnivore restaurant and the south land's estate that pollute the hyena dam. Waste from Karen residential area pollutes the Nagolomon dam and south kisembe streams that are both essential to the park. Altitude differences in Nairobi also lead the city's run-off drains into the park dams. Water pollution has contributed to wildlife death and diseases as much as poaching and other challenges have. Rising population density in Isinya is negatively affecting the park and impeding the migration of wildlife in the Nairobi National Park²⁴. The Southern part of the park that is left unfenced is the main entrance and exit of wild animals during migration.

According to some conservation activists the park is under additional pressure on development than of conservation²⁵. Notably, to the south of the park, the development of a large urban area left the wild animals in search or grazing grounds. Another challenge is the infrastructure project of railway expansion and a major road bypass that have affected the square capacity of the park. The more the park is reduced, the more the territory of the animals' shrinks. It is evident that Kenya is undergoing infrastructure development, but extending its major infrastructure toward the park may result in its non-existence or transfer of the wild animals to capacity-holding parks²⁶. The development are having a negative impact and contribute to the loss of vegetation,

²⁴ Landy, Frédéric. From urban national parks to natured cities in the global south: the quest for naturbanity. Singapore: Springer, 2018.

²⁵ Wildlife Direct Campaign Group. "Kenya's iconic Nairobi national park is under threat, conservationists warn." *The Gurdian*, 2014.

²⁶ Wildlife Direct Campaign Group, 2014.

habitat and the ability to provide vital ecosystem services. The disturbance effects that come from road construction will cause a change in wildlife behavior. The report also acknowledges that the negative impacts on the wildlife community will be long term. According to a report by the East African Wildlife Society the government of Kenya should approve any type of development approaching nationally reserved area²⁷ to help protect wildlife and parks.

2.3 Kenya's Environmental Policy Framework

2.3.1 Environmental policy 2013

The promulgation of The Constitution of Kenya 2010 and other new developments like climate change marked an important chapter in Kenya's environmental policy development. Hailed as a 'Green' Constitution, it embodies elaborate provisions with considerable implications for sustainable development28. These range from environmental principles and implications of Multilateral Environmental Agreements (MEAs) to the right to a clean and healthy environment as enshrined in the Bill of Rights. Chapter V is entirely dedicated to land and environment. It also embodies a host of social and economic rights which are of environmental character such as the right to water, food and shelter, among others. This backdrop provides the justification for this Environment Policy. It gives the framework to guide the country's efforts in addressing the ever-growing environmental issues and challenges such as:

- (a) Environmental governance,
- (b) loss of biodiversity,

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²⁷ Huntley, Brian J, and Brian H Walker. *Ecology of Tropical Savannas*. Berlin, Heidelberg: Springer Berlin Heidelberg, 2012.

²⁸National Environmental Policy, 2013

- (c) valuation of environmental and natural resources,
- (d) rehabilitation and restoration of environmentally degraded areas,
- (e) urbanisation,
- (f) waste management and pollution,
- (g) climate change, energy,
- (h) security and disaster management,
- (i) public participation,
- (j) environmental education and awareness,
- (k) data and information,
- (I) poverty,
- (m)chemicals management.

The goal of this Policy is to "better quality of life for present and future generations through sustainable management and use of the environment and natural resources." As regards infrastructural development, the policy defines infrastructural development to include among others buildings, roads, ports, railways, ICT, pipelines, irrigation systems, airports and electricity transmission. The environment aspects of such infrastructural development are distinct and unique such as effects on flora and fauna, social and psychological disruption, vegetation clearance, excavation works and spillages during construction. The policy enumareates the following as the implementable policy statements;

Ensure Strategic Environmental Assessment (SEA), Environmental Impact
 Assessment, Social Impact Assessment and Public participation in the planning
 and approval of infrastructural projects.

- 2. Develop and implement environmentally-friendly national infrastructural development strategy and action plan.
- Ensure that periodic Environmental Audits are carried out for all infrastructural projects.

Despite these ambitious policy statements, the country is yet to develop environment friendly national infrastructure development strategy and action plans. Further, the environmental audits and assessments are still rubber stamp measures as opposed to strict and intellectually honest evaluations.

2.3.2 Constitution of Kenya (2010)

The Constitution of Kenya 2010 (CoK) provided a foundation for the recognition of the right of people to the environment²⁹. Moreover, the obligations to environmental management are finally explicitly spelled out in the law; thus, they enhance government's commitments to ensuring environmental democracy. The Constitution recognizes the important role that environmental management plays in sustainable development³⁰.

Article 42 of the CoK calls for the enforcement of environmental rights by recognizing the need for every individual to have a clean and healthy environment³¹. The article continues to explain that individuals who feel that the right above has been violated have a right to turn to the court for redress suggesting that litigation is one of the ways the issue facing the NNP can be resolved. Pursuant to Article 70 clause 1 that states

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²⁹ Mwenda, Angela, and Thomas N Kibutu. 2012. "Implications of the New Constitution on Environmental Management in Kenya Recent Development." *Law, Environment and Development Journal*, 76. http://www.lead-journal.org/content/12076.pdf.

Maina, Maureen. 2015.

³¹ Constitution of Kenya (2010).

that, "The court may make any order, or give any directions, it considers appropriate –

(a) To prevent, stop or discontinue any act or omission that is harmful to the environment".

The provisions of *Article 42* and *Article 70* were created to have a wide scope to guarantee that any violation of environmental privileges, whether existing or envisioned are adequately dealt with. The CoK recognizes legal and non-legal remedies in addressing environmental matters touching on the two articles. The Constitution of Kenya 2010 has established a special Environmental and Land Court to ensure matters environment are addressed quickly and efficiently.

Article 69 of the CoK sets out certain onuses of both the state and citizens in regard to the environment. The Article places an onus on the state to inter alia; ensure the sustainable use, exploitation, administration and safeguarding of the environment and natural resources within the Kenyan jurisdiction. The Article also obliges the state to "ensure the equitable sharing of the accruing benefits, encourage public participation in the management, protection and conservation of the environment; 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 utilize the environment and natural resources for the benefit of the people of Kenya²³.

The Constitution of Kenya also provides for the principle of public participation under Article 10 under the devolved system of governance to ensure every Kenyan has an opportunity to participate in environmental governance at the lowest level of the society.

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³² Ibid

³³ Ibid.

Public participation is the avenue through which Kenyan citizens as environment stakeholders should be consulted by project proponents to avoid costly litigation and ensure citizens of Kenya enjoy their environmental rights.

2.3.3 Environmental Management and Coordination Act (EMCA) (1999)

Environmental regulation is critical to the sustainable development. Kenya's environmental policy framework comprises of Acts of Parliament and the Kenyan Constitution 2010. The Environmental Management and Coordination Act (EMCA) (1999) is the framework law that informs on environmental administration and conservation in Kenya³⁴. The EMCA recognizes the right of every Kenyan to a hygienic and healthy environs as well as gives every person *locus standi* to institute a case for any violation of environmental rights.

The EMCA established the legal, structural, and institutional framework for environmental management in Kenya. Under EMCA, several institutions have been established including the National Environment Management Authority (NEMA), the National Environment Tribunal (NET), National Environment Council (NEC) National Environment Action Plan Committees, Public Complaints Committee, and County Environment Committees. Section 4(1) of EMCA (1999) established the NEC and tasked it with responsible environmental policy formulation, setting national goals and determining policies for environmental protection at the national level³⁵. The National Environment Tribunal is mandated with hearing and deciding on grievances and appeals against decisions made by NEMA in regard to environmental authorization. The

³⁴ Environmental Management and Coordination Act 1999 (Ken) s 3 < https://www.nema.go.ke/images/Docs/Legislation%20and%20Policies/Environmental%20Act%20(EMCA1999)%2 0 pdf>

Ministry of Environment and Forestry (Kenya). *National Environment Council*. 2018. http://www.environment.go.ke/?p=190.

Public Complaints Committee is tasked with investigating citizens' grievances over breaches of the EMCA while the County Environment Committees are tasked with environmental management at the county/local level.

NEMA was established in 2002 as the principal government agency tasked with the implementation of all policies pertaining to the environment. Further, NEMA was tasked with exercising overall administration and coordination over all issues relating to the environment in Kenya. Under EMCA, NEMA is tasked with ensuring project proponents prepare a sound Environmental and Social Impact Assessment (ESIA) as suggested in Section 58 of EMCA, to inform decision making in project developments. NEMA is also tasked with conducting environmental checks and monitoring, and issuing environmental conservation and restoration orders and easements. NEMA is authorized to develop guidelines, recommend measures and criteria and issue recommendations towards environmental management and conservation in consultation with environmental lead agencies or experts.

2.4 Alternative Dispute Resolution Policy Framework

2.4.1 Overview

Alternative Dispute Resolution describes all methods of dispute resolution other than litigation or adjudication through the court of law. While ADR takes place outside the courts, it is regulated by a country's Constitution and the law³⁶. ADR mechanisms include mediation or reconciliation, negotiation, and arbitration and other hybrid forms

³⁶ Bank, M., Bank, C. "Alternative Dispute Resolution in the Settlement of Environmental Disputes in South Africa". World Academy of Science, Engineering and Technology, International Science Index 131, *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering* (2017), 11(11), 2686-2691.

including mini-trials, med-arb, rent-a-judge, neutral expert fact finding, and summary jury trial. According to Samson³⁷, no single ideology or coherent philosophy underpin ADR. The mechanisms can be used to prevent disputes from happening or settle existing ones. While ADR is generally speedy, some processes take a longer period and involved additional procedures.

Alternative Dispute Resolution mechanisms can be traced back to the Bushmen inhabiting the Kalahari Desert³⁸. These populations developed traditional dispute mechanisms that did not require the incorporation of any formal state systems, were well suited for their hunting and gathering life, and tailored to encompass the culture of these communities. The Bushmen experienced conflicts over land, water and food and employed mediation strategies in which the senior members of the community would sit together and listen to the issues raised by those in conflict³⁹. In cases where the disputes were not resolved effectively, the elders would hide the disputant's arrows to prevent aggravation of the conflicts to violence. In cases where the conflicts were resolved, the 'mediators' would call a section of the community members and direct them to discuss the dispute and ensure that all the issues were 'talked out ⁴⁰'.

Although it is culturally narcissistic to term these approaches as ADR, they clearly encompass the same elements characterized the modern ADR approaches. Hawaiian

³⁷ Samson, Claude, and Jeremy McBride. *Solutions de rechange au règlement des conflits*. Sainte-Foy: Presses de l'Université Laval, 1993.

³⁸ Boulle, Laurence. 2005. "A History of Alternative Dispute Resolution." *ADR Bulletin* 7 (7): 1–4. http://epublications.bond.edu.au/cgi/viewcontent.cgi?article=1309&context=adr.

³⁹ McManus, Michael, and Briana Silverstein. 2011. "Brief History of Alternative Dispute Resolution in the United States." *Cadmus Journal* 1 (3).

http://www.cadmusjournal.org/files/pdfreprints/vol1issue3/Reprint_McManus_Silverstein_Brief_History_ADR.pdf. ⁴⁰ Boulle, Laurence. 2005.

Islanders practiced 'hoponopono,' an approach that resembles ADR⁴¹. These leaders acted as mediators and attempted to ensure that a consensus was reached between the disputants, and all hard feelings were dealt with early enough before they escalated. The Greek also practiced ADR approaches⁴² and represent the origin of ADR in the Western world as they are the first communities to practice arbitration. According to Barrett and Barrett⁴³, employing arbitration in their conflicts was more than a mythology to this community. Around 400 B.C, arbitrators were appointed to deal with cases that could not be handled in the courts due to overcrowding. The arbitrators could hear all manner of civil cases, especially those in which the disputants were not willing to go through the legal structures. However, the Greek community was given the freedom to choose either the court structures or arbitration in case of conflicts. The system worked for the Greeks as it provided an alternative for those individuals that did not want to go through the crowded judicial system. The integration of ADR in the current system has its roots in the Greek and English communities⁴⁴.

2.4.2 Use of Alternative Dispute Resolution in Resolving Environmental Disputes

Alternative dispute resolution mechanisms have steadily spread to be used in resolving environmental matters. Alternative dispute resolution is generally considered a better method of dispute resolution as it saves time and financial resources compared to litigation⁴⁵. Environmental disputes often arise because of conflicting views over what constitutes sound policy for the environment. Often, stakeholders have different stakes

⁴¹ Barrett, Jerome T., and Joseph P. Barrett. 2004. *A History of Alternative Dispute Resolution : The Story of a Political, Cultural, and Social Movement*. New York: Jossey-Bass.

⁴² Boulle, Laurence. 2005.

⁴³ Barrett and Barrett, 2004.

⁴⁴ McManus, Michael, and Briana Silverstein. 2011.

⁴⁵ Ryan, Michelle. "Alternative Dispute Resolution in Environmental Cases: Friend or Foe?" *Tulane Environmental Law Journal*, 1997.

in the outcome regarding the environmental conflict. Equally, stakeholders in environmental conflict have different ideas of how the resources should be managed and allocated⁴⁶.

Environmental ADR has its origin in the 1970s and has been rapidly growing following successes in its use in resolving labor disputes and the need of some practitioners and private institutions to tryout using ADR techniques to resolve environmental disputes. In 1974, environmental ADR was used to mediate on the Snoqualmie River dispute over flood control measures. In resolving the dispute, the US federal and state governments passed a legislation calling for the use of ADR mechanisms in conflicts. 13353-Cooperative Conservation⁴⁷ environmental Executive Order accelerated and supported use of ADR in the USA to deal with environmental disputes and potential conflicts. The rise in environmental disputes from the 1970s led to the consideration for ADR mechanisms in resolving environmental disputes since they are cost effective and environmental litigation is unpredictable 48.

The Storm King Dispute is an important case in which ADR mechanisms were employed in mediating the 17 years environmental dispute after 10 years of litigation encompassing 3 court cases failed to resolve the dispute. The dispute involved various stakeholders; environmental groups, electric utility companies, and public agencies over the use of the Hudson River for power generation. The ADR mechanism used in this

⁴⁶ Ibid

⁴⁷ U.S. General Services Administration, National Archives and Records Service, Office of the Federal Register.

[&]quot;Code of Federal Regulations", 211

²⁰⁰⁵

⁴⁸ Ibid.

case involved bargaining and compromises and led to reduced environmental impacts on the aquatic life. The case demonstrated that all stakeholders benefited and incurred lesser cost compared to litigation⁴⁹. The case also demonstrated that mediation is quicker, more flexible, and cost effective, allows for greater and more efficient public participation compared to conventional litigation and lobbying mechanisms. During mediation, citizens are also adequately involved in the negotiation process, concerns are openly discussed and evaluated, and a more amenable solution is developed than through litigation⁵⁰.

ADR has also been employed in Japan to resolve environmental conflicts. The need for ADR in Japan was occasioned by Japan's rapid economic growth in the 1960s that led to serious environmental degradation. Moreover, many environmental disputes took a long period to resolve through litigation and during which environmental degradation continued to expand⁵¹. The Japanese government introduced environmental ADR in Japan in the 1970s and environmental ADR techniques have been wildly used in the nation. ADR mechanisms have been used to resolve disputes ranging from environmental pollution to health and safety. Evidence from the USA and Japan indicate that the primary benefits of ADR mechanisms is that they are quick and consequently less expensive compared to litigation⁵². An analysis of the use of ADR in japan indicate that pollution disputes encompassing health damage are decided promptly and so are air pollution problems. However, according to the analysis by Matsumoto the likelihood

⁴⁹ Ibid.

⁵⁰ ibid

⁵¹ Matsumoto, Shigeru. "A duration analysis of environmental alternative dispute resolution in Japan". *Ecological Economics*, 2011 70: 659–666.

⁵² Ibid.

of a dispute being resolved through ADR diminishes as time progresses and in Japan representative actions delay the settlement of environmental disputes⁵³.

Alternative dispute resolution mechanisms have been applied to settles land use disputes in Canada resulting in the protection of natural areas. Rose and Roger⁵⁴ evaluated the outcomes of six Canadian environmental mediation/negotiation cases in Ontario involving residential developments that were perceived to threaten the natural environment. The study revealed both the weaknesses and strength of ADR. Participation by parties unreceptive to or unacquainted with ADR hindered the process, and mediators were perceived as noncritical to the success of the process. The finding of this study suggested that stakeholders' perceptions on an environmental disputes determine whether they can solve environmental problems using ADR. Access to up-todate scientific information also influences the success of the ADR process55. ADR is also not guaranteed to resolve a disagreement, nor can it be successful without purposeful participation by all parties. Rose and Roger also found out that ADR is effective only when all participants feel that negotiation is useful. In the Canadian context, ADR was found to be insufficient in protecting natural settings, reactionary, and a piecemeal process⁵⁶.

ADR is being recognized as an alternative form of resolving dispute and environmental governance. According to Pring and Catherine expert environmental

⁵³ Matsumoto, 659.

⁵⁴ Rose, Marc, and Roger Suffling. "Alternative Dispute Resolution and the Protection of Natural Areas in Ontario, Canada." *Landscape and Urban Planning* 56, no. 1–2 (2001): 1–9. https://doi.org/10.1016/S0169-2046 (01)00156-6.

⁵⁵ Ibid.

⁵⁶ Ibid.

courts or tribunals (ECT) are emerging as an alternative to the traditional courts for delivering better access to environmental justice in the 21st Century⁵⁷ as evidenced by the hundreds of ECTs established globally in the recent decade. Environmental ADR also provides parties with an organized dispute settlement structure that secures their rights and common benefits even without going through the conventional legal procedures⁵⁸.

The idea of alternative dispute resolution fits comfortably within the traditional models of African justice, mostly its central value of reconciliation. Alternative dispute resolution has been used in various African states, such as in Ghana, Ethiopia, and Nigeria resulting in positive outcomes besides illustrating the suitability of ADR in the African contexts⁵⁹. ADR has been experimented as part of judicial reforms in the three countries. In Ghana, ADR was tried in 2003 in which about 300 mixed unresolved cases in selected courts were mediated⁶⁰. At the end of the process, over 90 percent of the disputants expressed satisfaction with the ADR mechanism and most of the case were mediated and concluded with only a few being returned for litigation in the courts. The success rate in Ghana revealed both the extent and potential of ADR as a conflict resolution tool.

Ghana's positive experience with ADR significantly influenced the establishment of the country's landmark ADR Act 798. A comparable positive experience with ADR has also

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⁶⁰ Ibid.

⁵⁷ Pring, George, and Catherine Pring. "The Future of Environmental Dispute Resolution." *Denver Journal of International Law and Policy* 40, no. 1 (2012): 482–91.

⁵⁸ Abdullah, Nuraisyah Chua. "Going Green in Urbanisation Area: Environmental Alternative Dispute Resolution as an Option." *Procedia - Social and Behavioral Sciences* 170 (2015): 401–8. https://doi.org/10.1016/j.sbspro.2015.01.050.

⁵⁹ Uwazie, Ernest E. "Alternative Dispute Resolution in Africa: Preventing Conflict and Enhancing Stability",." *Africa Security Brief*, 2011, 1–6.

been reported in Ethiopia. In 2008, the country launched an initial ADR project to reduce the backlog of cases in Ethiopian courts. During the course of the ADR project, a majority of the cases were adequately mediated and concluded with only a few being returned to the court. The stakeholders also expressed high satisfaction with the ADR mechanisms⁶¹. In Nigeria, the launch of Lagos Multidoor Courthouse and its ADR facility in 2002 led to over 200 cases being mediated and concluded monthly with settlement rates varying between 60-85 percent. The outcomes from the three African countries indicate that ADR mechanisms are widely acceptable, quick, and can be used to resolve a significant percentage of assorted caseloads in the courts⁶².

All communities experience conflicts at one time in their existence while proceeding with their daily operations as a result of many factors⁶³. However, the manner in which conflicts are handled is what determines outcomes of issues in conflict⁶⁴. Moura and Teixeira⁶⁵ content that one of the practicable solution that works to avert negative consequences of a conflict is identifying conflicts between the parties involved. In most cases there are several point of disagreement involving two or more parties each taking their side. For example, in a construction project there may be a conflict between a contractor and area resident due to noise emitted or between a contractor and client regarding cost of output. In such, Maura and Teixeira recommend breaking up each

⁶¹ Ibid.

⁶² Ibid.

⁶³ Ahmed, Khaled Ahmed Galal. "The Relationships between Conflict Management Styles, Job Satisfaction and Organizational Commitment among Workers in Public and Private Sectors." *Universal Journal of Psychology* 3, no. 2 (2015): 41-50.

⁶⁴ Anderson, Lee, and Brian Polkinghorn. "Managing Conflict in Construction Megaprojects: Leadership and Third-Party Principles." *Conflict Resolution Quartely* 26, no. 2 (2008): 167-198.

Boucher, Miriam Miley. *The Relationship of Principal Conflict Management Style and School Climate*. Doctoral dissertation, University of South Carolina, 2013.

⁶⁵ Moura, Helder, and José Cardoso Teixeira. "Managing Stakeholders Conflicts." 2014.

conflict between one party and the other. By identifying and separating several conflict makes it easy to find a solution between parties involved.

One of the approaches used resolve conflict and worked is partnering, which contributed to successful completion of Woodrow Wilson Bridge project. This was one of the U.S megaproject that is estimated to have used \$2.5 billion upon completion. The Woodrow Wilson Bridge crosses Potomatic River in Washington D.C. The project had all the necessary ingredient necessary for litigious conflicts. First it took long duration (13 years), and involved 21 construction contracts each with possibility of delay among the contractors involved. It was long covering 7.5 miles that was being overseen by state programs together with the Federal Highway Administration (FHA). The U.S senators and members of the Congress cross the bridge daily and there are more than 200, 000 other commuters that cross the bridge. Some of eminent conflicts were sources of conflict that surrounded building of the bridge. Some of eminent conflicts were blame for errors among different contractors, public feeling left out of the decision making process and environmental challenges. All these conflict had the potential to attract long court case and liabilities that could hijack implementation of the project.

Partnering is a long term arrangement and commitment between two or more parties or organizations for the purpose of achieving specified objectives by maximizing effectiveness of each participant resources and minimizing disputes⁶⁷. It is based on trust, understanding of each other expectation and dedication to achieve the common

⁶⁶ Anderson, Lee, and Brian Polkinghorn. "Managing Conflict in Construction Megaprojects: Leadership and Third-Party Principles." *Conflict Resolution Quartely* 26, no. 2 (2008): 167-198.

⁶⁷ Mcpeak, Mark. "Managing conflict in partnerships-lessons from the private construction sector." *The Journal of Partnership Brokering* 4, no. 2 (2016): 1-8.

goal. Participants are encouraged to proactively manage, resolve conflict and problems that can hinder achievement of the specified objectives in order to reduce transaction cost. Prior to partnering participants must familiarize themselves with conflict prevention skills so that they can learn ways of diverting potential conflict and problem that may arise. Partnering is based on following principles. First is trust and open communication. The second is that parties involved should address and resolve issues that are arising at their lowest possible level. The third is that participants must respect goals and values of the other party involved. The forth is that there should be a conducive atmosphere that favor cooperation and teamwork⁶⁸.

The success of building the bridge was realized because all the participants involved adhered to partnering process. There were also three other factors that were responsible for the success. One was awareness by those in leadership of the immense public scrutiny of the project. The second was that the leadership of organization involved responded to political and public demand. Finally those in management employed conflict prevention and management philosophies efficiently and effectively ⁶⁹.

Participatory approach is one of the method of conflict management that has been used successfully in the Niger Delta region of Nigeria. The region has witnessed several unprecedented violent conflict in the past that could not be solved by other methods. Niger Delta is endowed with several natural resources such as crude oil, coal and natural gas among others. Exploitation of these resources has led to conflicts between the communities living in the area as a result of feeling left out and not

⁶⁸ Mohr, Jakki J., and Robert Spekman. "Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques." *Strategic Management Journal* 15, no. 2 (2014): 135 – 152.

⁶⁹ Anderson and Polkinghorn, 2008.

benefitting from their resources. The activities in extracting these resources has also led to pollution of air, water and land especially when there is ail spills. This endangers aquatic life and surface vegetation of the region resulting to poverty and conflict between the community and oil company. Inter community conflict due to long standing boundary problems and disputes over oil-bearing land have been common in the past. Also intra-community conflict have been common due to disputes between political marginalization by ruling class and embezzlement of compensation by community leaders. Communities have also have had conflict with local and federal government⁷⁰.

The participatory approach that was used to resolve conflict, solve problems and used to make decisions is collaborative approach⁷¹. The relationship of all the parties involved is given equal priority to ensure mutually satisfying outcome. This approach of solving problem and conflict is based on building trust, face to face communication, negotiating, gathering information, valuing diversity and searching alternative resolution that seek win-win solutions. Participatory approach is democratic and give people a chance to manage their own affairs. All the parties participate in finding solution to the conflicts and problems affecting them⁷². The participatory approach has worked successfully in the Niger Delta region compared with other conflict management techniques used in the past. Previous methods used failed to encourage communication

Okoth, Rosemary. "Conflict Management in the Niger Delta Region of Nigeria: A Participatory Approach." African Journal on Conflict Resolution 6, no. 1 (2015): 11-17.

⁷¹ Riemann, Stefan, and Helmut Köntges. "Cooperative Mechanism for Solving Conflicts in Infrastructure Projects." *An International Journal* 4, no. 2 (2012): 552 - 559.

Pouwma, Irene, Rob van Apeldoorn, and Dana Kamphorst. Current practices in solving multiple use issues of Natura 2000 sites: Conflict management strategies and participatory approaches. Alterra, Wageningen, the Netherlands, 2010.

between various stakeholders involved, they were also argumentative, blame-trading, aggressive and one-sided⁷³.

Participatory approach has been used successfully in Lake Ontario and St Lawrence River Regulation in New York to solve conflict between different stakeholders that use the water for hydropower, domestic water supply, shipping and recreational boating. The diverse stakeholders have used collaborative and participatory approach to ensure potential conflicts are solved⁷⁴. It has also been used in forest development in Bangladesh to solve forest management conflict⁷⁵. A study conducted in Kenya at Makueni County revealed that the land management board in the area use participatory in addressing land conflicts⁷⁶.

ADR is considered valuable because the process yields superior outcomes to litigation or informal settlements⁷⁷. The benefits of ADR is that it can provide creative solutions to disputes, settlement may better reflect the merits of the dispute, the direct participation and involvement of parties may help resolve the disputes, and negotiations by parties are better compared by those by lawyers, ADR techniques are superior to litigation tactics that often involve bluffs and inequality of bargaining power, and outcomes are better where an impartial expert with greater awareness of the problem is

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⁷³ Okoth, 2015

⁷⁴ Furber, Alison, and Wietske Medema. "Conflict Management in Participatory Approaches to Water Management: A Case Study of Lake Ontario and the St. Lawrence River Regulation." Water Journal 280, no. 8 (2016): 2-17.

⁷⁵ Rahma, Laskar Muqsudur. "Conflict Management in Participatory Forest Development: Insights from Bangladesh." 2013. http://www.fao.org/docrep/ARTICLE/WFC/XII/0010-C1.HTM.

Mulae, Elizabeth. "The Effectiveness of Participatory Communication In Solving Land Conflicts In Kenya: A Case Study Of The Makueni County Land Management Board (CMLBS)." 2014. http://erepository.uonbi.ac.ke/bitstream/handle/11295/98802/Mulae_The%20Effectiveness%20of%20partic ipatory%20Communication%20in%20Solving%20Land%20Conflicts%20in%20Kenya%20a%20Case%20 Study%20of%20the%20Makueni%20County%20Land%20Management%20Board%20%28Cml.

⁷⁷ Samson, Claude, and Jeremy McBride, 1993.

involved than a judge or parties themselves⁷⁸. ADR is also cost effective at it takes lesser time and does not include lawyers' fees, settlements costs the courts and the litigants less time and financial resources, settlement may be beneficial to all parties, and ADR attempts to maximize the benefits by creating incentives that include reasonable settlements⁷⁹.

ADR has been criticized for some of its weaknesses. Some of the criticism of the ADR mechanisms is they tend to favor the more powerful, create challenges finding arbitrators or mediators, and are underutilized. Fiss⁸⁰ criticizes ADR stating that "ADR considers courts as simple dispute solvers whereas the courts provide rules and guidelines for society in court sanctioned judgments". Fiss also reasons that

"The dispute resolution story makes settlement appear as a perfect substitute for judgment by trivializing the remedial decision of a lawsuits, and also by reducing the social function of the lawsuits one of resolving private disputes"⁸¹.

ADR is also criticized for being intended to help the system by reducing the case load in courts instead of helping individuals and that litigation outcomes are fairer because judge has to be autonomous⁸².

⁷⁸ Ibid.

⁷⁹ Ibid

Fiss, Owen M., "Against Settlement" (1984). Faculty Scholarship Series. 1215.

https://digitalcommons.law.yale.edu/fss papers/1215

⁸¹ Ibid.

⁸² Ibid.

2.4.3 Kenyan Approach in use of ADR in resolving environmental disputes

The Kenyan dispute resolution process recognizes the use of ADR approaches; however, the extent and application of ADR in resolving environmental conflicts is limited. In Kenya, a mandatory requirement for parties to submit to ADR proceedings exists⁸³. The Civil Procedure Act provides a leeway for the courts under their own authority to refer disputants to ADR or allow them to follow the normal system. In Kenya, arbitration is largely recognized in the law⁸⁴. Under section 13 of the Arbitration Act (Cap 4 of 1995), it states that

"(I) When a person is approached in connection with his possible appointment as an arbitrator, he shall disclose any circumstances likely to give rise to justifiable doubts as to his impartiality or independence".

The Section continues to indicate that the arbitrator should disclose any circumstances that may render their ruling unjust at all times. The Arbitration Act calls for the application of the justice principals during the arbitration process. Under Section 19 for example, the arbitrator is supposed to treat both parties equally and give everyone the chance to present their perspective of the conflict. Employment of justice and equality in arbitration is well recognized under the Kenyan law and hence promoting the ADR processes.

Mediation is also well recognized as an ADR mechanism within the law. *Article 159* of the Constitution of Kenya outlines that principles that must be applied in exercising

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⁸³ Muigua, Kariuki. 2012. "Alternative Dispute Resolution and Article 159 of the Constitution"." http://www.ciarbkenya.org/assets/a-paper-on-adr-and-article-159-of-constitution.pdf.

⁸⁴ Kenya Law Resource Center. 2016. "Alternative Dispute Resolution." 2012. Accessed November 23.

http://www.kenyalawresourcecenter.org/search/label/Alternative Dispute Resolution.

⁸⁵ Republic of Kenya. 2012. "Laws of Kenya: Arbitration Act."

judicial authority and one of the provision is the application of ADR approaches provided they do not contravene the Bill of Rights⁸⁶. Specifically, it indicates that

"Alternative forms of dispute resolution including reconciliation, mediation, arbitration and traditional dispute resolution mechanisms shall be promoted, subject to clause (3); (d) justice shall be administered without undue regard to procedural technicalities."

Therefore, the Constitution of Kenya fully recognizes mediation as an ADR approach in various matters⁸⁸. The recognition of mediation in the Kenyan law is an indication that a paradigm shift exists in policy to encourage ADR in disputes that also include environmental cases. Another ADR mechanism that is widely recognized under the Kenyan law is conciliation⁸⁹. Similar to arbitration and mediation, conciliation encompasses a conciliator who brings parties together to resolve conflicts as we as point out any misconception that may exist in the case. Unlike mediation, conciliation does not require the conciliator to be neutral. After the conciliation process, any of the ADR approaches can be employed. The recognition of the ADR approaches by the Kenyan law is meant to promote access to justice and find an alternative to decongest the courts of law⁹⁰. However, the law does not explicitly indicate the most suitable ADR approaches for solving environmental disputes mainly due to the vitality of these mechanisms.

⁸⁶ Article 159 Constitution of Kenya 2010.

⁸⁷ Ibid.

⁸⁸ Muigua 2012.

⁸⁹ Ibid.

⁹⁰ Muigua, Kariuki, and Kariuki Francis. 2015. "Alternative Dispute Resolution, Access to Justice and Development in Kenya." *Strathmore Law Journal* 1: 1-21.

2.4.4 International Approaches Used In the Past to Resolve Environmental Conflicts

Communities experience conflicts at one time in their existence as a result of many factors⁹¹. Conflicts are inevitable and have always been present especially during infrastructure developments. Moura and Teixeira⁹² content that one of the solutions to avert negative consequences of a conflict is identifying conflicts between the parties involved. In most cases there are several points of disagreement involving two or more parties each taking their side. In such case Maura and Teixeira recommend breaking up each conflict between one party and the other. By identifying and separating several conflict makes it easy to find a solution between parties involved.

One of the approaches used to resolve conflict is partnering, which contributed to successful completion of Woodrow Wilson Bridge project, one of the U.S megaproject that is estimated to have used \$2.5 billion upon completion. The Woodrow Wilson Bridge crosses Potomatic River in Washington D.C. The project had all the necessary ingredient necessary for litigious conflicts. First it took a long duration (13 years), it was covering 7.5 miles and was being overseen by state and federal agencies and affected other stakeholders⁹³. Some of eminent conflicts were blame for errors among different contractors, public feeling left out of the decision making process and environmental challenges. All these conflict had the potential to attract long court case and liabilities that could hijack implementation of the project.

⁹¹ Ahmed, Khaled Ahmed Galal. 2015. "The Relationships between Conflict Management Styles, Job Satisfaction and Organizational Commitment among Workers in Public and Private Sectors." Universal Journal of Psychology 3 (2): 41-50.

⁹² Moura and Teixeira, 2014.

⁹³ Anderson, Lee, and Brian Polkinghorn. 2008. "Managing Conflict in Construction Megaprojects: Leadership and Third-Party Principles." Conflict Resolution Quarterly 26 (2): 167-198.

Partnering is a long-term arrangement and commitment between two or more parties or organizations for the purpose of achieving specified objectives by maximizing effectiveness of each participant resources and minimizing disputes⁹⁴. It is based on trust, understanding of each other expectation and dedication to achieve the common goal. Participants are encouraged to proactively manage, resolve conflict and problems that can hinder achievement of the specified objectives. Prior to partnering participants must familiarize themselves with conflict prevention skills so that they can learn ways of diverting potential conflict and problem that may arise. Partnering is based on following principles. First is trust and open communication. The second is that parties involved should address and resolve issues that are arising at their lowest possible level. The third is that participants must respect goals and values of the other party involved. The forth is that there should be a conducive atmosphere that favour cooperation and teamwork⁹⁵.

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⁹⁴ Mcpeak, Mark. 2016. "Managing conflict in partnerships-lessons from the private construction sector." The Journal of Partnership Brokering 4 (2): 1-8.

Mohr, Jakki J., and Robert Spekman. 2014. "Characteristics of Partnership Success: Partnership Attributes,
 Communication Behavior, and Conflict Resolution Techniques." Strategic Management Journal 15 (2): 135 - 152.
 Ibid

Participatory approach has also been used in the past in conflict resolution. The approach was used successfully in the Niger Delta region of Nigeria. The region has witnessed several unprecedented violent conflict in the past that could not be solved by other methods. Niger Delta is endowed with several natural resources such as crude oil, coal and natural gas among others. Exploitation of these resources has led to conflicts between the communities living in the area as a result of feeling left out and not benefitting from their resources. The activities in extracting these resources has also led to pollution of air, water and land especially following oil spills endangering aquatic life and surface vegetation of the region resulting to poverty and conflict between the community and oil company. Inter community conflict due to long standing boundary problems and disputes over oil-bearing land have been common in the past. Also, intracommunity conflict have been common due to disputes between political marginalization by ruling class and embezzlement of compensation by community leaders. Communities have also have had conflict with local and federal government⁹⁷.

The participatory method that was used to resolve conflict is a collaborative approach ⁹⁸. The relationship of all the parties involved is given equal priority to ensure mutually satisfying outcome. The approach of solving problem and conflict is based on building trust, face to face communication, negotiating, gathering information, valuing diversity and searching alternative resolution that seek win-win solutions. Participatory approach is democratic and gives people a chance to manage own affairs. All the parties

⁹⁷ Okoth, Rosemary. 2015. "Conflict Management in the Niger Delta Region of Nigeria: A Participatory Approach." African Journal on Conflict Resolution 6 (1): 11-17.

⁹⁸ Riemann, Stefan, and Helmut Köntges. 2012. "Cooperative Mechanism for Solving Conflicts in Infrastructure Projects." An International Journal 4 (2): 552 - 559.

participate in finding solution to the conflicts and problems affecting them⁹⁹. The participatory approach has worked successfully in the Niger Delta region compared with other conflict management techniques used in the past because previous methods used failed to encourage communication between various stakeholders involved, they were also argumentative, blame-trading, aggressive and one-sided¹⁰⁰.

Participatory approach has been used successfully in Lake Ontario and St Lawrence River Regulation in New York to solve conflict between different stakeholders that use the water for hydropower, domestic water supply, shipping and recreational boating. They have used collaborative and participatory approach to ensure potential conflicts are solved¹⁰¹. Participatory approach was also used to solve forest management conflict in Bangladesh¹⁰². A study conducted in Kenya at Makueni County revealed that the land management board in the area also use participatory in addressing land conflicts¹⁰³.

Pro-active conflict detection approach is another method of dispute resolution. The method is suitable in solving conflict involving building of infrastructure such as road, pipelines and electric power where conflict can escalate in an unpredictable manner. For example when constructing roads, companies use shortest route possible and this often displaces some people from their residential area resulting in conflict if they are

⁹⁹ Bouwma et al.

¹⁰⁰ Ibid

¹⁰¹ Furber, Alison, and Wietske Medema. 2016. "Conflict Management in Participatory Approaches to Water Management: A Case Study of Lake Ontario and the St. Lawrence River Regulation." Water Journal 280 (8): 2-17. ¹⁰² Rahma, Laskar Muqsudur. 2013. "Conflict Management in Participatory Forest Development: Insights from Bangladesh." http://www.fao.org/docrep/ARTICLE/WFC/XII/0010-C1.HTM.

¹⁰³ Mulae, Elizabeth. 2014. "The Effectiveness of Participatory Communication In Solving Land Conflicts In Kenya: A Case Study Of The Makueni County Land Management Board (CMLBS)."

not consulted. As a result, all the stakeholders must be involved and engaged in planning of the project 104.

The building of the Marginal de la Selva highway in Colombia attracted a lot of controversy and conflict 105. The highway was estimated to have used \$1 billion and passes in between two Colombian National Parks. Once complete the highway was to facilitate transportation of cargo across South America from the Atlantic to the Pacific without having to enter the Andes Mountains. This was anticipated to open an enticing trade route from Venezuela to Ecuador through Colombia. Despite the intended positive outcome upon completion of the highway much conflict has been generated. The most source of conflict has been loss of biodiversity. Colombia is estimated to be the second most diverse county in the world after Brazil. The Chiribiquete Natural National Park where the road passes is one of the largest protected area in the Amazon known to contain ancient indigenous art that are dated to 18,000 BC. The park has 41 species of reptiles, 49 amphibians, 13 mammals that are under threat of extinction, 145 species of birds and indigenous group of people that are believed to be isolated to the world. Researches worry that the highway may disrupt peaceful and natural co-existence of species in the National Park and encourage cutting down of trees. The solution to the problem that has been adapted is dialogue between the local residents to discuss the issue of deforestation in the area. The scientist have also been supported to carry out

¹⁰⁴ Bergmüller, Ralph. 2015. "Conflict management in the process of impact assessment." http://conferences.iaia.org/2015/Final-Papers/Bergmuller,%20Ralph%20-

^{%20}Conflict%20management%20in%20the%20process%20of%20impact%20assessment.pdf

¹⁰⁵ Volckhausen, Taran. 2017. "New highway brings deforestation near two Colombian national parks." https://news.mongabay.com/2017/06/new-highway-brings-deforestation-to-two-colombian-national-parks/.

more research in the area where the highway pass with the sole purpose of investigated the best method that can be used to preserve biodiversity of species in Colombia 106.

One of the popular way of solving disputes or conflicts settlement entails following a legal process in a court of law under civil and criminal law. However, following the legal process to seek justice is expensive, emotionally draining, time consuming and unpredictable. Organizations or people who go to court do so to get judgments in their favor. Litigation is often about seeking victories over the opponents and this sometimes leaves permanent scars on the mind of those who lose the case, thereby creating enmity and fostering hostility in the future. Therefore, it is not a good option in solving or managing conflicts. This has resulted in the application of alternative dispute resolution (ADR), which aim to solve disputes depending on circumstances in a way that is beneficial to all parties involved. ADR is convenient, inexpensive, protects the dignity of parties' involved, flexible and consume less time compared to litigation 107.

Alternative dispute resolution has emerged as a tool for solving complex environmental conflict that have been on the rise due to construction of infrastructure and exploitation of resources¹⁰⁸. When natural resources are being exploited there is need to ensure sustainable development. This means that any dispute that arise should be solved in way that meet current human needs while preserving the environment for the future generation. In Nigeria there are several conflict due to exploitation of natural resources

¹⁰⁶ Ibid

¹⁰⁷ Nwankwo, Okechukwu Dominic, Nnamdi Obikeze, and Uche G Akam. 2012. "Alternative/appropriate dispute (conflict) resolution (ADR): The psychological facilitators." Research Journal in Organizational Psychology & Educational Studies 1 (2): 83-89.

Ruis, Barbara. 2018. Alternative Dispute Resolution in Environmental Cases. United Nations Environment Programme. https://www.unece.org/fileadmin/DAM/env/pp/a.to.j/TF6-2013/4_Ruis_ADR.pdf

such as oil. The oil companies have led to environmental degradation, led to unemployment and this has caused several confrontations. Land boundaries have also been a problem resulting to several conflict between communities. It is due to these internal conflict confronting the country that have led to the government and several non-governmental organization backing use of ADR to resolve disputes in a way that will lead to sustainable development in exploitation of the natural resources. All the three levels of government in Nigeria have been spearheading for incorporation of ADR into the framework for sustainable development. However, despite government effort to encourage use of ADR, it has not full been accepted. Many still believe in litigation to resolve their conflict because they have little knowledge of ADR methodology as a way of resolving dispute¹⁰⁹.

South Africa has had several environmental disputes related to tourism activity that have led to popularizing of ADR to solve some of the conflicts. The tourism sector is dependent on natural environment such as beaches, seas, lakes and rivers, national park, significant building and monument that are preserved. Exploitation of these resources has attracted conflict among parties that are involved resulting to litigation in courts of law, which take a lot of time and financial resources to the parties in conflict. Additionally the issue of sustainable development in exploitation of these natural resources that attract tourist has been an area of concern to environmentalist who purpose to preserve ecological integrity and biodiversity. It is based on this that South Africa constitution has allowed several form of ADR to be used to solve environmental

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¹⁰⁹ Oni-Ojo, Edith Ebegu, and Comfort Roland-Otaru. 2013. "Alternative dispute resolution strategies for sustainable development in Africa: Insight from Nigeria." Journal of Management and Entrepreneurial Development 3 (1): 37-54.

conflict in order to protect and preserve the environment. The South Africa environmental agencies consider ADR as best in solving most disputes related to environment as opposed to using legal process¹¹⁰.

National Parks have been created in several areas in Africa to conserve biodiversity. They are classified as protected areas where people are restricted from exploiting its resources so that ecological integrity can be maintained for future generation. In Africa it is estimated that 1812 National Parks are under protection by government to conserve biodiversity 111. Two main approaches are common in conserving biodiversity in National Park in Africa. The most dominant approach is the preservation approach often referred to as protectionism approach, where all human activities except tourism are not allowed inside the National Parks. This method is guided by policies and law that prevent anybody accessing National Park. The approach has not been effective in preventing human activities in National Park because some communities depend on resources from National Park for their livelihood. This has led to conflict between government agencies trying to enforce policies and communities that seek to exploit resources for their sustenance, overall undermining biodiversity conservation efforts.

Currently some governments in Africa have started using community-based conservation approach to maintain ecological integrity of National Parks¹¹². This method has been advocated to address problems associated in excluding human activities from the park. It involve initiatives aimed at preserving biodiversity in parks while allowing

Bank, van der. 2017. "Settling Environmental Disputes using Alternative Dispute Resolution strategies and the impact on tourism activity in South Africa." African Journal of Hospitality, Tourism and Leisure 6 (3): 1-12.
 Colchester, Marcus. 2008. Salvaging Nature: Indigenous Peoples, Protected Areas and Biodiversity Conservation. DIANE Publishing.

Galvin, K, P Thornton, J Sunderland, J Pinho, and R Boone. 2016. "Integrated modeling and its potential for resolving conflicts between conservation and people in the rangelands of East Africa." Human Ecology 34 (2): 155-183.

local people to benefit from the park by letting them to have access to specific resources from the park for subsistence use. In some places money generated from the National Park is used for infrastructure development for the local communities, while in other cases percentage of revenue generated from tourism activities is given to the local people. This approach has been more effective in preserving biodiversity compared to first approach because it minimizes conflict between the governments with the local communities¹¹³. However, there is need for improvement in application of community based approach to increase success rate of biodiversity conservation.

Canada is one of the country's that has fully embraced alternative dispute resolution in solving environmental conflicts. According to Swanson¹¹⁴, both government and private organization have spearheaded initiatives that advocate the use of alternative dispute resolution as opposed to following lawsuits in courts to solve environmental problems. Additionally, law reforms encouraging use of ADR have been drafted. A good example is the Canadian Environmental Assessment Act, which is an ADR inclusive legislation. Whenever there is a conflict related to environment in Canada there are guidelines that ensures any ADR settlement that will be reached will guarantee sustainable development. After the parties involved in conflict agree on best method to settle their dispute outside court process the government enforces what has been agreed. Similarly several European nations have embraced ADR methods in solving environmental issues that arise. The conflict and prevention resolution in European nation has a

¹¹³ Tumusiime, D, W Gombya-Ssembajjwe, and P Vedeld. 2011. "Breaking the law? Illegal livelihoods from a Protected Area in Uganda." Forest Policy and Economics 13 (4): 273-283.

¹¹⁴ Swanson, Elizabeth. 2005. "Alternative dispute Resolution and environmental conflict: The case for law reform." Environmental conflict 267-278.

guideline that gives procedure of how mediation should be conducted and a guide for several form of ADR methods¹¹⁵.

2.5 Gaps in the literature

There has been extensive literature on the use of ADR in environmental conflict arising from the negative impacts of government backed development and environmental protection in the United states, Canada and Japan as espoused above. However, there is minimal literature on the application of ADR in the same instance in Kenya. Most of the literature on the Kenyan context is dedicated to environmental disputes between communities, or private sector and communities. The main aim of this research is to explore the extent of the application of ADR in environmental disputes occasioned by government projects that have major negative impacts on government protected areas in Kenya and thus contribute to the literature in this area of study.

¹¹⁵ Oddy, Alexander J., Isabelle Robinet, and Jean Najar. 2015. Using mediation and other ADR processes: A guide for European corporates and organizations. International Institute for Conflict Prevention and Resolution. https://www.cpradr.org/resource-center/manuals-and-guides/EAB-Mediation-Guide

3. CHAPTER THREE: METHODOLOGY

3.1. Site/Study Area

The study area, the Nairobi National Park in Kenya, lies between latitudes 1° 20′ -1° 26′ S and longitudes 36° 50′-36° 58′ E and is located 15km from the Nairobi Central Business District¹¹⁶. The park is home to many species of flora and fauna some of which are either threatened or endangered. The Nairobi National Park was once larger that it is now with Kitengela area on the Southern being a conservation area. The area has been lost to development. Kitengela was joined to the Ngong National Reserve that was adjacent to the NNP. The Athi-Kaputei Plains is also part of the NNP as it is a migratory route for several species to and from the NNP¹¹⁷. The NNP covers an area of 2.200 km² and bonders the Rift valley on the west and the old meter-gauge/narrow gauge railway line on the east and the southern borders respectively.

3.2. Study Design

The study followed a qualitative case study approach to study the use of alternative dispute resolution to settle conflicts resulting from infrastructure development in the Nairobi National Park. The case study approach used case law analysis where past legal cases in similarity regarding the primary facts and rule of law or legal standard of the court judgment and those of the current NNP-SGR dispute were considered. A qualitative approach in research is exploratory as it seeks to describe the experiences of a certain group(s) and therefore it is based on a narrative. Therefore, qualitative

Ogutu et al.SGR-IIA ESIA Habitat Planners. 2016.

research give the participants in a study voice¹¹⁸. The qualitative approach does not seek to test a hypothesis but uses an indicative approach whereby the researcher starts with data collection and then endeavors to derive explanations from the data. A qualitative approach generates non numerical data. The qualitative research approach used in this study was an interview study¹¹⁹.

3.3. Study Population

This describes the accessible group in research from which the sample was drawn and comprised of experts drawn from Kenyan judiciary, Kenya Wildlife Service (KWS) staff, youth in conservation, and wildlife conservation professionals.

3.4. Sampling

Purposive sampling was used in this study. Purposive sampling represents a subjective sampling approach in which the researchers' judgment guides the sample selection process¹²⁰. The choice for the sampling approach was that the target population was small and the study wishes to capture the perspectives of expert¹²¹ relating to the uses of ADR and environmental impacts of the SGR on the NNP. Expert sampling¹²², which is a purposive sampling technique was used because the researcher wanted to garner knowledge from persons that had expertise in environmental case law and conversant with the research problem. All the respondents had been affected by

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¹¹⁸ Pathak, V., B. Jena, and S. Kalra. 2013. "Qualitative research." *Perspectives in clinical research* 4 (3): 192. doi:doi:10.4103/2229-3485.115389.

¹¹⁹ Ibid.

¹²⁰ Daniel, Johnnie. Sampling Essentials: Practical Guidelines for Making Sampling Choices. 2011.

Palinkas, Lawrence A., Sarah M. Horwitz, Carla A. Green, Jennifer P. Wisdom, Naihua Duan, and Kimberly Hoagwood. "Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research." *Administration and Policy in Mental Health and Mental Health Services Research* 42, no. 5 (2015): 533–44. https://doi.org/10.1007/s10488-013-0528-y.

¹²² E Daniel, Johnnie. Sampling Essentials: Practical Guidelines for Making Sampling Choices. Los Angeles: Sage, 2012.

the SGR project in one way or another, particularly with respect to the construction activities, land acquisition, economy, and legal and social aspects.

3.5. Data Collection

Data were collected through questionnaires answered by environmental experts drawn from the Kenyan judiciary (3), Kenya Wildlife Service (KWS) staff (5), youth in conservation (4) and wildlife conservation professionals (6). The Kenyan Judiciary respondents were selected to better understand the judicial perspective on the study problem and to provide an insider's perspective when discussing the advantages of ADR over litigation. Two of the Judiciary respondents were judges of the High Court, 1 was a Principal Magistrate. All of them were above the age of 45.

The Kenya Wildlife Service staff were selected to understand the government's position on utilization of government managed conservation areas for the benefit of infrastructural projects. All of them were stationed at the KWS Headquarters in Nairobi National Park and all were above the age of 45.

Youth in conservation were selected to understand the perception of youth who are the biggest demographic of visitors to the Nairobi National Park. All were between the ages of 25-35.

Wildlife conservation professionals were chosen to offer an experts view on the problem under study. All were above the age of 45; two are wildlife conservation scientists, 1 is a communication professional in the wildlife sector, 1 is a wildlife conservation lawyer, and

2 are program management professionals in the conservation sector. The questionnaires used to collect data in this study had four sections that collected information (1) about the NNP, (2) effectiveness of litigation in environmental dispute resolution, (3) use of ADR in environmental conflicts, and (4) dispute resolution in NNP infrastructure development.

3.6. Data Analysis

Thematic and content analysis were used to infer the data. Data collection continued until data saturation was reached. Data were checked for reliability and validity through triangulation and respondent validation.

3.7. Limitations

The researcher was limited in use of a small sample size that ultimately impacted on the richness of discussion during the focus group discussions as well as individual interviews. Sampling involves more than just the number of participants included in the study; sampling is a process that incorporates the number of participants, the number of contacts with each participant, and the length of each contact. It is important for researchers to consider how much contact will be required in order to reach saturation 123"

¹²³ Onwuegbuzie, A. J., & Leech, N. L. "A call for qualitative power analyses," Quality & Quantity, (41), 2007, 105-121.

3.8 Ethical Issues

The research posed minimal risk as it did not involve vulnerable populations or any procedures that could induce physical pain or potential injury. The researcher collected only the age of the participants and job position held. Therefore, the provisions made to protect the confidentiality of participants were securely storing the data and research records to ensure the identifying information did not divulge to third parties.

4. CHAPTER 4: RESULTS AND DISCUSSIONS

4.1 Chapter Introduction

This chapter presents and discusses the results of the study. It is organized in 4 main sections. Section 1 deals discusses the extent of the application of ADR in resolving infrastructure development conflict in the NNP, section 2 compares ADR and litigation as conflict resolution mechanisms and section 3 discusses various policy option in mainstreaming the use of ADR in the resolution of development infrastructure conflicts.

Out of the eighteen questionnaires sent out, 14 were returned but one was incomplete; therefore, the response rate was 72%. The response rate was calculated by dividing the number of usable questionnaires returned by the total number of the questionnaires sent out in the sample chosen. Researchers doing a qualitative analysis should aim at a response rate of approximately 60%¹. The response rate attained in this study was determined to be representative of the sample, the evaluation of the responses reflected the elements of the study population with breadth and depth, and the study did not suffer nonresponse bias. Overall, the response rate influenced the reliability and validity of study findings.

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¹ Fincham, Jack E. "Response Rates and Responsiveness for Surveys, Standards, and the Journal." *American Journal of Pharmaceutical Education* 72, no. 2 (2008): 43. http://www.ncbi.nlm.nih.gov/pubmed/18483608 http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC2384218.

The returned questionnaires were reviewed for completeness and only one was incomplete and was exclude from the analysis. The questionnaires were then reviewed and the response oriented themes identified alongside the research objectives.

4.2 Extent of Application of ADR in resolution of infrastructure development conflicts in NNP

The recognition of the ADR approaches by the Kenyan law is meant to promote access to justice and find an alternative to decongest the courts of law². However, the law does not explicitly indicate the most suitable ADR approaches for solving environmental disputes mainly due to the vitality of these mechanisms. The National Land Commission under the law is allowed to employ ADR approaches under the law. Despite this provision, the utilization of ADR is minimal, especially on environmental issues. This section will outline the nature of the conflicts in the SGR-NNP development, it will discuss the extent of the use of ADR in resolving those conflicts and discuss the possible enablers for use of ADR as a conflict resolution mechanism

4.2.1 Nature of conflicts arising from SGR traversing the NNP

The benefits arising from the NNP were classified as economic, cultural, and social. The economic benefits of the park included employment for many Kenyans and is a foreign exchange earner for Kenya thorough tourism. The social benefits were the preservation of Kenya's cultural heritage and for Kenya and the environmental benefits includes a carbon sink, preservation of biodiversity, and provision of ecosystem services. All the

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²Muigua, Kariuki, and Kariuki Francis. 2015. "Alternative Dispute Resolution, Access to Justice and Development in Kenya." *Strathmore Law Journal* 1: 1-21.

13 respondent were aware of the social, environmental, and economic importance of the NNP, the challenges facing the Park, and the dispute pitting conservationists and the government over the development of SGR inside the NNP. By assessing what the respondents considered the benefits of the NNP it was easy to discern the environmental implications of the SGR.

All the 13 respondent were aware of the NNP-SGR dispute involving the Kenyan government, KWS, Maasai pastoralist community, NGOs, and conservation community and the issue leading to the dispute. The respondent agreed that the SGR infrastructure development presented negative environmental impacts on the Park despite the positive impacts of easing transportation of passengers and flight from the port city of Mombasa to Nairobi and Kenya's Heartlands. Other included the positives were the economic benefits resulting from ease of transport of freight, creation of employment, and spur of economic growth along the route.

The themes identified regarding the negative environmental impacts on the Park included the Park's ecosystem disturbance, shirking of the park, and species extinction. All the respondents were aware that the litigation process had been unsuccessful in resolving the dispute pitting the SGR development against environmental conservation in the Park. The reasons given were conflicting laws, the Kenyan government remaining non-committal on resolving the dispute and there was lack of public participation involving the affected communities. The finding of the study mirror those by Kwena ³ where community participation in development project was determined to be very low.

³ Kwena, Godfrey Ndubi. Factors Affecting Community Participation In The Management Of Development Projects Through Local Authority Service Delivery Action Plans: A Case Study Of Kilgoris Constituency, Narok County. Management University Of Africa, 2013

The research also assessed the environmental implications of the SGR traversing the Nairobi National park. The analysis indicated that the decision to build the SGR through the NNP was misinformed and will have detrimental environmental impacts on the national park. The case analysis revealed that in petition No. 58 of 2014, consolidated with petition No. 209 of 2014, Okiya Omtatah Okoiti & 2 others v Attorney General & 3 others [2014], the petitioners were opposed to the project because of the manner in which it was planned and implemented. In the petition, the issue of the project being undertake without the consideration of environmental implications was raised with the petitioners citing the lack of a feasibility study and flawed project design. The petitioners also raised the issue of sustainable exploitation, use, management protection and conservation of the environment, environmental audit and monitoring, environmental impact assessment, and consideration for processes and activities that might endanger the environment. The case analysis indicated that the project proponents failed to undertake a mandatory Environmental and Social Impact Assessment (ESIA) as provided for under Section 58 and 69 of the Environment Management and Coordination Act. Therefore, suggesting that environmental implications of the SGR traversing the Nairobi National park were not considered reinforcing past evidence that the environmental matters are often sidelined when developing nations are undertaking mega development projects⁴. While the court held that the ESIA conducted by the Kenyan Government was satisfactory and did not indicate that the SGR project would have detrimental effects on the national park, the analysis of expert onions in this study showed the opposite. All the respondents

⁴ Ezzat, Othman, and Ayman, Ahmed, Challenges of mega construction projects in developing countries, International Journal of Organization, Technology and Management, 737.

indicated that the NNP and its inhabitants would experience adverse environmental impacts from the SGR development.

The environmental implications of the SGR are noise and land pollution of the park, interference with animal migration route, the parks' natural habitat fragmentation and destruction of the parks ecosystems. The finding of this research reinforces research evidence that shows the infrastructure developments are major threats to biodiversity as they encourage habitat fragmentation and other detrimental impacts⁵. Comparable to this study's environmental findings, infrastructure developments in Italian national parks led natural habitat fragmentation and effects on wildlife movement within the parks ⁶. In addition, a meta-analysis investigating the impacts of infrastructure proximity on mammal and bird populations indicated that infrastructure interfered with the normal mammals and birds life as their densities declined near infrastructure⁷. The decline in bird densities was because of birds mortalities associated with the development. Mammals that have small home ranges and migration distances declined because they were more sensitive to infrastructure developments and habitat fragmentation⁸. The analysis also indicated that the planning aspect of the SGR project was contributory to the environmental implications whereby cost and economic implications rather than environmental sustainability guided the decision to construct the railway across the NNP. Other authors also observed that in

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⁵ Laurance, W. F., M. A. Cochrane, S. Bergen, P. M. Fearnside, P. Delamônica, C. Barber, S. D'Angelo, and T. Fernandes. "The Future of the Brazilian Amazon." *Science*, 2001. https://doi.org/10.1126/science.291.5503.438.

⁶ Bruschi, Daniele, Davide Astiaso Garcia, Franco Gugliermetti, and Fabrizio Cumo. "Characterizing the Fragmentation Level of Italian's National Parks due to Transportation Infrastructures." *Transportation Research Part D: Transport and Environment* 36 (2015): 18–28. https://doi.org/10.1016/j.trd.2015.02.006.

⁷ Benítez-López, Ana, Rob Alkemade, and Pita A. Verweij. "The Impacts of Roads and Other Infrastructure on Mammal and Bird Populations: A Meta-Analysis." *Biological Conservation*, 2010. https://doi.org/10.1016/j.biocon.2010.02.009.

⁸ Buskirk, Steven. "Keeping an Eye on the Neighbors." *Science*, 2004. https://doi.org/10.1126/science.1104480.

developing nations, the economic effects of transportation infrastructure with their direct influence on economic growth have been given priority over the environmental impacts of such developments⁹.

4.2.2 Application of ADR in resolving conflicts arising from SGR traversing the NNP

Several challenges limited the extent to which ADR was used to resolve conflicts emanating from development activities in protected areas in Kenya. The challenges included the lack of proper backing of streamlined ADR utilization in the Kenyan environmental laws, lack of capacity development in terms of ADR experts at high levels of governmental decision making, diversity in interests among stakeholders, financing, lack of adequate investment in ADR mechanisms in terms of capacity and financing, lack of avenues and platforms for practicing ADR, and the failure by the Kenyan judiciary to promote the use of ADR in sustainable development disputes in Kenya. The respondents observed that in the NNP-SGR case, ADR was not used to resolve the dispute for the sustainable development of the Park.

Similar challenges were identified in Nigeria whereby starvation of the judiciary of funds to build some of the ADR methods and lack of enlightenment about ADR were primary challenges identified in Nigeria¹⁰. These challenges were also observed in Ghana where lack of adequate ADR centers/platforms, shortage of ADR practitioners, and inadequate

⁹ Flyvbjerg, Bent. "What You Should Know about Megaprojects and Why: An Overview." *Project Management Journal*, 2014. https://doi.org/10.1002/pmj.21409.

Chinyere, Ani. n.d. Alternative dispute resolution in nigeria a study of the LMDC. https://www.academia.edu/31440831/ALTERNATIVE_DISPUTE_RESOLUTION_IN_NIGERIA_A_ST_UDY_OF_THE_LMDC.

funding limited the application and effectiveness of ADR in Ghana¹¹. Funding of the judiciary to promote the adoption and application of ADR came out as a big challenge in this study, Nigeria, and Ghana.

While ADR was found not to be used for sustainable development, the respondents indicated that it presented one the most inclusive approaches to resolving disputes because of its benefits over litigation. ADR was identified to be cost effective in this study as well in Nigeria, inclusive, and promoted stakeholder's goodwill. In Nigeria ADR takes the form of the Lagos Multi-Door Courthouse (LMDC)¹², which serves as a central point for the promotion of ADR.

According to the respondents, the extent to which ADR could be used to resolve sustainable development disputes was through an act of parliament, making ADR the first step in resolving conflict, decentralizing the judicial system, and providing legal education at the community level.

As mentioned earlier¹³ the Storm King Dispute is an important case in which ADR mechanisms were employed in mediating the 17 years environmental dispute after 10 years of litigation encompassing 3 court cases failed to resolve the dispute. The dispute involved various stakeholders; environmental groups, electric utility companies, and public agencies over the use of the Hudson River for power generation. The ADR mechanism used in this case involved bargaining and compromises and led to reduced

¹¹ Abdul-Rafiu, Alhassan. The Institution and Challenges of Alternative Dispute Resolution (ADR) In West Africa: The Case of Ghana. (Masters Dissertation) University of Ghana, 2015.

¹² Chinyere, Ani. 13 ibid

environmental impacts on the aquatic life. The case demonstrated that all stakeholders benefited and incurred lesser cost compared to litigation ¹⁴. The case also demonstrated that mediation is guicker, more flexible, and cost effective, allows for greater and more efficient public participation compared to conventional litigation and lobbying mechanisms. During mediation, citizens are also adequately involved in the negotiation process, concerns are openly discussed and evaluated, and a more amenable solution is developed than through litigation 15. Furthermore, the idea of alternative dispute resolution fits comfortably within the traditional models of African justice, mostly its central value of reconciliation. Alternative dispute resolution has been used in various African states, such as in Ghana, Ethiopia, and Nigeria resulting in positive outcomes besides illustrating the suitability of ADR in the African contexts¹⁶. ADR has been experimented as part of judicial reforms in the three countries. In Ghana, ADR was tried in 2003 in which about 300 mixed unresolved cases in selected courts were mediated 17. At the end of the process, over 90 percent of the disputants expressed satisfaction with the ADR mechanism and most of the case were mediated and concluded with only a few being returned for litigation in the courts. The success rate in Ghana revealed both the extent and potential of ADR as a conflict resolution tool. The Kenyan dispute resolution process recognizes the use of ADR approaches; however, the extent and application of ADR in resolving environmental conflicts is limited. In Kenya, a mandatory requirement for parties to submit to ADR proceedings exists 18. The Civil Procedure Act

¹⁴ Ibid.

¹⁵ ibid

¹⁶ Uwazie, Ernest E. "Alternative Dispute Resolution in Africa: Preventing Conflict and Enhancing Stability",."
Africa Security Brief, 2011, 1–6.

¹⁷ Ibid.

¹⁸ Muigua, Kariuki. 2012. "Alternative Dispute Resolution and Article 159 of the Constitution"." http://www.ciarbkenya.org/assets/a-paper-on-adr-and-article-159-of-constitution.pdf.

provides a leeway for the courts under their own authority to refer disputants to ADR or allow them to follow the normal system. In Kenya, arbitration is largely recognized in the law¹⁹. Under section 13 of the Arbitration Act (Cap 4 of 1995), it states that

"(I) When a person is approached in connection with his possible appointment as an arbitrator, he shall disclose any circumstances likely to give rise to justifiable doubts as to his impartiality or independence"²⁰.

The Section continues to indicate that the arbitrator should disclose any circumstances that may render their ruling unjust at all times. The Arbitration Act calls for the application of the justice principals during the arbitration process. Under Section 19 for example, the arbitrator is supposed to treat both parties equally and give everyone the chance to present their perspective of the conflict. Employment of justice and equality in arbitration is well recognized under the Kenyan law and hence promoting the ADR processes.

Mediation is also well recognized as an ADR mechanism within the law. *Article 159* of the Constitution of Kenya outlines that principles that must be applied in exercising judicial authority and one of the provision is the application of ADR approaches provided they do not contravene the Bill of Rights²¹. Specifically, it indicates that

"Alternative forms of dispute resolution including reconciliation, mediation, arbitration and traditional dispute resolution mechanisms shall be promoted,

¹⁹ Kenya Law Resource Center. 2016. "Alternative Dispute Resolution." *2012*. Accessed November 23. http://www.kenyalawresourcecenter.org/search/label/Alternative Dispute Resolution.

²⁰ Republic of Kenya. 2012. "Laws of Kenya: Arbitration Act."

²¹ Constitution. 2010.

subject to clause (3); (d) justice shall be administered without undue regard to procedural technicalities^{,22}.

Therefore, the Constitution of Kenya fully recognizes mediation as an ADR approach in various matters²³. The recognition of mediation in the Kenyan law is an indication that a paradigm shift exists in policy to encourage ADR in disputes that also include environmental cases. Another ADR mechanism that is widely recognized under the Kenyan law is conciliation²⁴. Similar to arbitration and mediation, conciliation encompasses a conciliator who brings parties together to resolve conflicts as we as point out any misconception that may exist in the case. Unlike mediation, conciliation does not require the conciliator to be neutral. After the conciliation process, any of the ADR approaches can be employed. The recognition of the ADR approaches by the Kenyan law is meant to promote access to justice and find an alternative to decongest the courts of law²⁵. However, the law does not explicitly indicate the most suitable ADR approaches for solving environmental disputes mainly due to the vitality of these mechanisms.

4.3 Comparison of ADR and Litigation as mechanisms for conflict resolution

The study also sought to identify the advantages of use of ADR in sustainable development conflict resolution. The analysis showed that ADR is considered to be cost effective, and inclusive as all parties have access to the ADR process, parties have a

²³ Muigua 2012.

²² Ibid.

²⁴ Ibid.

²⁵ Muigua, Kariuki, and Kariuki Francis. 2015. "Alternative Dispute Resolution, Access to Justice and Development in Kenya." *Strathmore Law Journal* 1: 1-21.

choice of the mediator/arbitrator, all stakeholders are given opportunity to be heard/participate, and ADR fosters good will among stakeholders. Comparable findings were reported in a study done in Hong Kong, whereby stakeholders in the construction industry applied ADR in resolving conflicts for obtaining benefits such as cost reduction and relationship preservation²⁶. Siegel also indicated that ADR was beneficial for its flexibility, cost effectiveness, and it helped reduced the burden on judicial system²⁷. A study conducted in the USA to assess the effectiveness and lessons learned from the application of ADR in resolving environmental conflicts found that the approach was cost effective, time saving, and lead to solutions that were more acceptable to the stakeholders²⁸. Muigua indicated ADR mechanisms benefits that were comparable to those identified in this study including ADR focuses on cost effectiveness, interests and not rights, fostering relationships, and mutually satisfying outcomes²⁹.

Despite ADR not being used for sustainable development in Kenya, the alternative (litigation) that was extensively used and was found to be ineffective in environmental dispute resolution. Litigation in the case of NNP was found to be ineffective because of the lack of political good will and mis-prioritization of issues. Moreover, case law analysis revealed that litigation was ineffective because of the lack of accessibility to courts, delays, and the high costs. A review of several environmental cases launched

²⁶ Cheung, Sai-on. Critical factors affecting the use of alternative dispute resolution processes in construction. *International Journal of Project Management* 17, no. 3 (1991): 189-194.

²⁷ Siegel, Joseeph. Alternative Dispute Resolution in Environmental Enforcement Cases: A Call for Enhanced Assessment and Greater Use. Pace Environmental Law Review, 24,1 (2007)

²⁸ O'Leary, Rosemary, and Susan Summers Raines. "Lessons Learned from Two Decades of Alternative Dispute Resolution Programs and Processes at The U.S. Environmental Protection Agency." *Public Administration Review* 61, no. 6 (2001): 682–92. https://doi.org/10.1111/0033-3352.00139.

²⁹ Muigua, Kariuki. Empowering the Kenyan People through Alternative Dispute Resolution Mechanisms. Paper Presented at the CIArb Africa Region Centenary Conference 2015, (2015)

against the SGR indicates the ineffectiveness of litigation in resolving environmental disputes.

4.3.1 Table 1; Litigation summary

Case Name/Number	Case Description
Appeal No. NET/192/2016.	In this appeal, Okiya Omtatah and the Kenya Coalition for Wildlife Conservation and Management challenged the construction of SGR phase two at the National Environmental Tribunal citing that construction started without a proper Environmental Impact Assessment process being carried out. The case was dismissed in early 2017. Its focus was on non-adherence to procedural law.
NET 200	This case was filed in the beginning of 2017 at the National Environmental Tribunal challenging the illegal/inappropriate issuance of the NEMA license allowing the construction of the standard gauge railway to proceed. The court issued a Stop Order in February 2017 holding off all activities related to SGR phase two construction until the matter is heard and determined at the tribunal. The Stop Order is still in force, though this has been ignored by the government and the contractors with construction of phase 2A now complete and Phase 2B more than halfway through.
NET 200 Contempt of Court Application	This case was filed at the National Environmental Tribunal against the Kenya Railways Corporation and the Chinese Contractors for going against the Stop Orders given in NET 200 and proceeding with construction of SGR phase two. This is yet to be determined.
Petition 186 of 2017	This is another Contempt of Court Application, but filed at the Environment and Land Court of Kenya
Petition 251 of 2017	The case was filed challenging the unconstitutional Amendment of the Environmental Management and Coordination Act of 1999 vide section 29 of the Prevention of Torture Act. This would have allowed the government to proceed with the construction of infrastructural projects despite stop orders by NET
Petition 15 of 2018	Filed at the Environment and Land Court of Kenya, this is an application to quash the gazettement of transfer of NNP land from KWS to the Kenya Railways Corporation by the National Land Commission on the grounds that due process was not followed.
Petition no. 548 of 2015, Okiya Omtatah Okoiti & another vs ministry of transport and infrastructure & 3 others, at the High Court at Nairobi	This is a petition filed at the High Court demanding full disclosure of all financing and construction contracts entered into by government regarding SGR Phase 2A in tandem with the right to access of information
Civil Appeal Nos. 17 & 18 of 2017	This is a petition challenging decisions made in NET 200/2017 that had a number of witness testimonies thrown out on technicalities.

Petition no. 1288 of 2016, Okiya Omtatah Okoiti vs. Kenya Wildlife Service (KWS) & 14 others, at the ELC Nairobi Challenging the constitutional and legal validity of the decision by the KWS Board of Trustees to allow the Phase 2 of the Standard Gauge Railway to be routed through the Nairobi National Park on the basis of lack of quorum and proper constitution for the KWS board.

The above analysis revealed that ADR has not been applied to resolve the disputes resulting from the SGR development in the NNP. These findings are similar to those of a research that looked at the resolution of disputes arising from major infrastructure projects in developing countries whereby it was found that the use of ADR mechanisms is minimal and scanty evidence is available on their application³⁰. In this study, the findings indicate that the various stakeholders involved in the matter have only considered litigation to resolve the issue with petition No. 58 of 2014, consolidated with petition No. 209 of 2014, *Okiya Omtatah Okoiti & 2 others v Attorney General & 3 others* [2014] still pending in the High Court in Nairobi.

In the case of NNP, litigation has been the only method adopted to resolve the conflicts involving sustainable development; however, the analysis revealed that it has been ineffective. Litigation has taken a long time as the petitions challenging the construction of the SGR through the NNP are still in court. Moreover, litigation has not stopped the proponents of the SGR from continuing with the project. The ineffectiveness of litigation has been because it came too late at a point when project had already began and the Kenyan justice system is influenced by bad politics. Moreover, there is a lack of political goodwill, the SGR is a major development initiative whose proponents are the Kenyan government and a Chinese infrastructure investment

³⁰ Mante, Joseph, Ndekugri, I, and Ankrah, Nii. Resolution of Disputes Arising From Major Infrastructure Projects in Developing Countries. COBRA 2011 - Proceedings of RICS Construction and Property Conference. 104-116 (2011).

bank, and the cost of litigation has barred some of the affected stakeholders from perusing justice. The findings of this study resonate with past evidence that shows that environmental consideration, preserving natural reserves, and historical sites are not priority when developing nations are undertaking mega development projects³¹.

4.4. Policy options for mainstreaming the use of ADR in infrastructure development conflicts in Kenya

In this study, the author also assessed policy solutions to streamline the use of ADR in environmental protection versus infrastructural development conflicts in Kenya.

Kenya can learn a lot from different countries on mainstreaming the use of ADR in infrastructure dispute resolution. Alternative dispute resolution has emerged as a tool for solving complex environmental conflicts that have been on the rise due to construction of infrastructure and exploitation of resources³². When natural resources are being exploited there is need to ensure sustainable development. This means that any dispute that arises should be solved in way that meets current human needs while preserving the environment for the future generation. In Nigeria there are several conflicts due to exploitation of natural resources such as oil. The oil companies have led to environmental degradation, led to unemployment and this has caused several confrontations. Land boundaries have also been a problem resulting to several conflict between communities. It is due to these internal conflict confronting the country that have led to the government and several non-governmental organization backing use of

Ezzat, Othman, and Ayman, Ahmed, 737.

³² Ruis, Barbara. 2018. Alternative Dispute Resolution in Environmental Cases. United Nations Environment Programme. https://www.unece.org/fileadmin/DAM/env/pp/a.to.j/TF6-2013/4_Ruis_ADR.pdf

ADR to resolve disputes in a way that will lead to sustainable development in exploitation of the natural resources. All the three levels of government in Nigeria have been spearheading for incorporation of ADR into the framework for sustainable development. However, despite government effort to encourage use of ADR, it has not full been accepted. Many still believe in litigation to resolve their conflict because they have little knowledge of ADR methodology as a way of resolving dispute³³.

South Africa has had several environmental disputes related to tourism activity that have led to popularizing of ADR to solve some of the conflicts. The tourism sector is dependent on natural environment such as beaches, seas, lakes and rivers, national park, significant building and monument that are preserved. Exploitation of these resources has attracted conflict among parties that are involved resulting to litigation in courts of law, which take a lot of time and financial resources to the parties in conflict. Additionally the issue of sustainable development in exploitation of these natural resources that attract tourist has been an area of concern to environmentalist who purpose to preserve ecological integrity and biodiversity. It is based on this that South Africa constitution has allowed several form of ADR to be used to solve environmental conflict in order to protect and preserve the environment. The South Africa environmental agencies consider ADR as best in solving most disputes related to environment as opposed to using legal process³⁴.

³³ Oni-Ojo, Edith Ebegu, and Comfort Roland-Otaru. 2013. "Alternative dispute resolution strategies for sustainable development in Africa: Insight from Nigeria." Journal of Management and Entrepreneurial Development 3 (1): 37-54

^{54. &}lt;sup>34</sup> Bank, van der. 2017. "Settling Environmental Disputes using Alternative Dispute Resolution strategies and the impact on tourism activity in South Africa." African Journal of Hospitality, Tourism and Leisure 6 (3): 1-12.

National Parks have been created in several areas in Africa to conserve biodiversity. They are classified as protected areas where people are restricted from exploiting its resources so that ecological integrity can be maintained for future generation. In Africa it is estimated that 1812 National Parks are under protection by government to conserve biodiversity³⁵. Two main approaches are common in conserving biodiversity in National Park in Africa. The most dominant approach is the preservation approach often referred to as protectionism approach, where all human activities except tourism are not allowed inside the National Parks. This method is guided by policies and law that prevent anybody accessing National Park. The approach has not been effective in preventing human activities in National Park because some communities depend on resources from National Park for their livelihood. This has led to conflict between government agencies trying to enforce policies and communities that seek to exploit resources for their sustenance, overall undermining biodiversity conservation efforts.

Currently some governments in Africa have started using community-based conservation approach to maintain ecological integrity of National Parks³⁶. This method has been advocated to address problems associated in excluding human activities from the park. It involve initiatives aimed at preserving biodiversity in parks while allowing local people to benefit from the park by letting them to have access to specific resources from the park for subsistence use. In some places money generated from the National Park is used for infrastructure development for the local communities, while in

³⁵ Colchester, Marcus. 2008. Salvaging Nature: Indigenous Peoples, Protected Areas and Biodiversity Conservation. DIANE Publishing.

³⁶ Galvin, K, P Thornton, J Sunderland, J Pinho, and R Boone. 2016. "Integrated modeling and its potential for resolving conflicts between conservation and people in the rangelands of East Africa." Human Ecology 34 (2): 155-183.

other cases percentage of revenue generated from tourism activities is given to the local people. This approach has been more effective in preserving biodiversity compared to first approach because it minimizes conflict between the governments with the local communities³⁷. However, there is need for improvement in application of community based approach to increase success rate of biodiversity conservation.

Canada is one of the country's that has fully embraced alternative dispute resolution in solving environmental conflicts. According to Swanson³⁸, both government and private organization have spearheaded initiatives that advocate the use of alternative dispute resolution as opposed to following lawsuits in courts to solve environmental problems. Additionally, law reforms encouraging use of ADR have been drafted. A good example is the Canadian Environmental Assessment Act, which is an ADR inclusive legislation. Whenever there is a conflict related to environment in Canada there are guidelines that ensures any ADR settlement that will be reached will guarantee sustainable development. After the parties involved in conflict agree on best method to settle their dispute outside court process the government enforces what has been agreed. Similarly several European nations have embraced ADR methods in solving environmental issues that arise. The conflict and prevention resolution in European nation has a guideline that gives procedure of how mediation should be conducted and a guide for several form of ADR methods³⁹.

³⁷ Tumusiime, D, W Gombya-Ssembajjwe, and P Vedeld. 2011. "Breaking the law? Illegal livelihoods from a Protected Area in Uganda." Forest Policy and Economics 13 (4): 273-283.

³⁸ Swanson, Elizabeth. 2005. "Alternative dispute Resolution and environmental conflict: The case for law reform." Environmental conflict 267-278.

³⁹ Oddy, Alexander J., Isabelle Robinet, and Jean Najar. 2015. Using mediation and other ADR processes: A guide for European corporates and organizations. International Institute for Conflict Prevention and Resolution. https://www.cpradr.org/resource-center/manuals-and-guides/EAB-Mediation-Guide

The analysis indicated that ADR could significantly be improved and applied in resolving disputes if the judiciary accepted ADR as the first and mandatory step in resolving environmental conflicts. Coming up with and developing policies that foster institutional appreciation of ADR in resolving disputes involving protected areas, adhering to the current legislation, and enhancing institutional capacity development were considered appropriate policy solutions to streamline the use of ADR in Kenya.

Additionally, litigation as a method of dispute resolution primarily focused on procedural issues (such as lack of EIA certification, non-compliance with EIA certificate conditions and lack of public participation). However, as seen above⁴⁰ the complexities fronted by infrastructural development and indeed infrastructural development in the Nairobi National Park are ecological complexities that affect the integrity of the park's biodiversity. Such complex issues stand a better chance of resolution through less combative dispute resolution mechanisms such as ADR, where the goal is to find an amicable solution as opposed to winning a court case.

⁴⁰ Ibid

5. CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

After reviewing the existing literature, interviewing respondents and analysis the applicable case law, it is evident that ADR when applied to conflict occasioned by development activities in wildlife protected areas is quicker, more flexible, and cost effective, allows for greater and more efficient public participation compared to conventional litigation and lobbying mechanisms. For instance, in mediation, citizens are also adequately involved in the negotiation process, concerns are openly discussed and evaluated, and a more amenable solution is developed than through litigation. This is evidenced by the review of the case study in the USA and Japan indicate that the primary benefits of ADR mechanisms is that they are quick and consequently less expensive compared to litigation.

The need for ADR in Japan was occasioned by Japan's rapid economic growth in the 1960s that led to serious environmental degradation. Moreover, many environmental disputes took a long period to resolve through litigation and during which environmental degradation continued to expand41. The Japanese government introduced environmental ADR in Japan in the 1970s and environmental ADR techniques have been wildly used in the nation. ADR mechanisms have been used to resolve disputes ranging from environmental pollution to health and safety. Evidence from the USA and Japan indicate that the primary benefits of ADR mechanisms is that they are quick and

⁴¹ Matsumoto, Shigeru. "A duration analysis of environmental alternative dispute resolution in Japan". *Ecological Economics*, 2011 70: 659–666.

consequently less expensive compared to litigation 42. An analysis of the use of ADR in japan indicate that pollution disputes encompassing health damage are decided promptly and so are air pollution problems. However, according to the analysis by Matsumoto the likelihood of a dispute being resolved through ADR diminishes as time progresses and in Japan representative actions delay the settlement of environmental disputes 43.

Additionally, ADR is considered valuable because the process yields superior outcomes to litigation or informal settlements . The benefits of ADR is that it can provide creative solutions to disputes, settlement may better reflect the merits of the dispute, the direct participation and involvement of parties may help resolve the disputes, and negotiations by parties are better compared by those by lawyers, ADR techniques are superior to litigation tactics that often involve bluffs and inequality of bargaining power, and outcomes are better where an impartial expert with greater awareness of the problem is involved than a judge or parties themselves .

Furthermore, ADR is also cost effective at it takes lesser time and does not include lawyers' fees, settlements costs the courts and the litigants less time and financial resources, settlement may be beneficial to all parties, and ADR attempts to maximize the benefits by creating incentives that include reasonable settlements.

Finally, the study revealed that litigation is significantly ineffective as compared to ADR when resolving such disputes. The study concluded that litigation has taken a long time as the petitions challenging the construction of the SGR through the NNP are still in

⁴² Ibid.

⁴³ Matsumoto, 659.

court. Moreover, litigation has not stopped the proponents of the SGR from continuing with the project. The ineffectiveness of litigation has been because it came too late at a point when project had already began and the Kenyan justice system is influenced by bad politics. Moreover, there is a lack of political goodwill, the SGR is a major development initiative whose proponents are the Kenyan government and a Chinese infrastructure investment bank, and the cost of litigation has barred some of the affected stakeholders from perusing justice. The findings of this study resonate with past evidence that shows that environmental consideration, preserving natural reserves, and historical sites are not priority when developing nations are undertaking mega development projects. It is critical to note that all the cases currently and previously in court addressed procedural issues of the conflict such as the EIA license conditions and the participation of relevant stakeholders in the process. Whereas most of the arguments by conservationists and the public when opposing these projects lie in the substantive matters of negative environmental impacts and health impacts of the projects. In litigation, the duty of the courts is not to decide on grounds or sense, but purely on the basis of the evidence and arguments put before the court. Many disputes are not basic in nature, yet in litigation the court tends to rule on the balance of probabilities. In litigation, the balance may be inclined one way by strict legal principles. In contrast, ADR is seen as an alternative to litigation as it de-professionalizes dispute settlements by associating mechanisms that are participatory especially to lay persons; thus, imploring a sense of justice and fair play. Alternative dispute resolution mechanisms are preferred to litigation because they provide justice to the masses and

are the proper mechanisms for certain categories of cases that entail reaching a negotiated understanding.

5.2 Recommendations

Flowing from the above conclusions, the researcher came up with five policy recommendations for specific implementation by the key players within the causal chain of the research problem. Firstly, the level of application of ADR in conflict resolution involving conservation versus infrastructural development disputes should be enhanced through a policy framework, institutional capacity development and political goodwill. Specifically, at the ministry level, ADR should be streamlined as a Standard Operating Procedure from the very start of international contract/loan negotiation, where such loan is to be used to fund projects that have direct impact on biodiversity. As discussed above, several challenges limited the extent to which ADR was used to resolve conflicts emanating from development activities in protected areas in Kenya. The challenges included the lack of proper backing of streamlined ADR utilization in the Kenyan environmental laws, lack of capacity development in terms of ADR experts at high levels of governmental decision making, diversity in interests among stakeholders, financing, lack of adequate investment in ADR mechanisms in terms of capacity and financing, lack of avenues and platforms for practicing ADR, and the failure by the Kenyan judiciary to promote the use of ADR in sustainable development disputes in Kenya. The respondents observed that in the NNP-SGR case, ADR was not used to resolve the dispute for the sustainable development of the Park

Secondly, the Constitution recognizes the important role that environmental management plays in sustainable development44. Article 42 of the CoK calls for the enforcement of environmental rights by recognizing the need for every individual to have a clean and healthy environment45. The article continues to explain that individuals who feel that the right above has been violated have a right to turn to the court for redress suggesting that litigation is one of the ways the issue facing the NNP can be resolved. Pursuant to Article 70 clause 1 that states that, "The court may make any order, or give any directions, it considers appropriate – (a) To prevent, stop or discontinue any act or omission that is harmful to the environment"46.

The provisions of Article 42 and Article 70 were created to have a wide scope to guarantee that any violation of environmental privileges, whether existing or envisioned are adequately dealt with. The CoK recognizes legal and non-legal remedies in addressing environmental matters touching on the two articles. The Constitution of Kenya 2010 has established a special Environmental and Land Court to ensure matters environment are addressed quickly and efficiently. Consequently, it's the judiciary has the powers to catalyze reforms as follows:

1. The office of the chief Justice should create an "Environmental Cases Management Guidelines" that require the inclusion of substantial sustainable development questions as a critical component of any public litigation cases brought before the courts in any disputes that pit sustainable development and infrastructural development against each other. This will ensure that a

⁴⁴ Maina, Maureen. 2015.

⁴⁵ Constitution of Kenya (2010).

⁴⁶ Ibid

steady stream of jurisprudence around substantive matters will be constantly churned out by the courts, and in turn better fill policy gaps by the executive.

ADR should be mandated as a pre-condition for the listing of cases within the court system, for all disputes that pit environmental conservation and infrastructural development against each other.

Thirdly, the Environmental Management and Coordination Act (EMCA) (1999) is the framework law that informs on environmental administration and conservation in Kenya47. The EMCA established the legal, structural, and institutional framework for environmental management in Kenya. Under EMCA, several institutions have been established including the National Environment Management Authority (NEMA), the National Environment Tribunal (NET), National Environment Council (NEC) National Environment Action Plan C NEMA was established in 2002 as the principal government agency tasked with the implementation of all policies pertaining to the environment. Further, NEMA was tasked with exercising overall administration and coordination over all issues relating to the environment in Kenya. Under EMCA, NEMA is tasked with ensuring project proponents prepare a sound Environmental and Social Impact Assessment (ESIA) as suggested in Section 58 of EMCA, to inform decision making in project developments. NEMA is also tasked with conducting environmental checks and monitoring, and issuing environmental conservation and restoration orders and easements. NEMA is authorized to develop guidelines, recommend measures and

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⁴⁷ Environmental Management and Coordination Act 1999 (Ken) s 3 < https://www.nema.go.ke/images/Docs/Legislation%20and%20Policies/Environmental%20Act%20(EMCA1999)%2 0.pdf>

criteria and issue recommendations towards environmental management and conservation in consultation with environmental lead agencies or experts.

However, NEMA licensing of EIA experts does not consider the need for training or experience in ADR, despite the experts being mandated to conduct highly complex and often times emotive public participation processes. Conducting such public participation processes involves employing the participatory approach. Participatory approach ensures that the relationship of all the parties involved is given equal priority to ensure mutually satisfying outcome. This method is based on building trust, face to face communication, negotiating, gathering information, valuing diversity and searching alternative resolution that seek win-win solutions. The approach is democratic and gives people a chance to manage own affairs. All the parties participate in finding solution to the conflicts and problems affecting them48. As seen in chapter 3 above, the participatory approach worked successfully in the Niger Delta region compared with other conflict management techniques used in the past because previous methods used failed to encourage communication between various stakeholders involved, they were also argumentative, blame-trading, aggressive and one-sided49. Therefore, all EIA experts should be required to undergo certification training in Mediation as a form of ADR before they are licensed to conduct EIAs. The public usually come in contact with an infrastructural project when the EIA expert is conducting public participation meetings for the purposes of the EIA. Having mediation training will allow EIA experts to better resolve some of the contentious points that arise from the infrastructural project

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⁴⁸ Bouwma et al.

⁴⁹ Ibid

Fourthly, the National Environmental Policy defines infrastructural development to include among others buildings, roads, ports, railways, ICT, pipelines, irrigation systems, airports and electricity transmission. The environment aspects of such infrastructural development are distinct and unique such as effects on flora and fauna, social and psychological disruption, vegetation clearance, excavation works and spillages during construction. The policy enumerates the following as the implementable policy statements;

- Ensure Strategic Environmental Assessment (SEA), Environmental Impact Assessment, Social Impact Assessment and Public participation in the planning and approval of infrastructural projects.
- 2. Develop and implement environmentally-friendly national infrastructural development strategy and action plan.
- 3. Ensure that periodic Environmental Audits are carried out for all infrastructural projects.

Despite these ambitious policy statements, the government is yet to formulate any 'environment friendly' national infrastructural development strategies or action plans. Furthermore, the policy is ambiguous in the term "environment friendly" without defining exactly what that "friendliness to the environment" entails. Its therefore imperative and a "environmentally sustainable infrastructural development strategy is formulated and implemented forthwith.

Lastly, this research only focused on the use of ADR in infrastructure development in protected areas, specifically, government run protected areas. However, conservation areas owned by private citizens or communities, such as conservancies, are still open to blatant abuse by the powerful government machinery. Such areas can be acquired through compulsory acquisition and eminent domain. There is need for further research into how compulsory acquisition and eminent domain can be used as hostile tools in securing conservation land for infrastrural development and what tool can be used to protect the conservation value of such lands.

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