

# The United Nations Environmental Program Efforts in the Implementation of Multilateral Environmental Agreements in Nairobi City County, Kenya, 1992-2022

Cherotuk Jonah Kiprugu<sup>1</sup>, Onyango Evans Odhiamb<sup>2</sup>

<sup>1,2</sup>Department of Security, Diplomacy and Peace Studies, Kenyatta University

DOI: <https://dx.doi.org/10.47772/IJRISS.2024.8110124>

Received: 16 November 2024; Accepted: 25 November 2024; Published: 09 December 2024

## ABSTRACT

Urban areas have become a global concern as a significant source of environmental issues. As a leading authority in environmental matters, UNEP has stepped in to help states to protect urban environment as a wider strategy of safeguarding planetary health. This study sought to examine efforts made by the UNEP in implementing MEAs aimed at safeguarding urban environment of Nairobi City County between 1992 and 2022. The study employed a combination of descriptive and explanatory research designs. Interviews and questionnaires were utilized to collect qualitative and quantitative data respectively while document review was utilized to collect secondary data. The target population comprised officials from NEMA, KWS, MFA, UNEP, Nairobi County Government, members of the Parliamentary Committee on Environment and Lands, KFS staff, Nairobi residents, and environmental CBO employees. The study had a total of 104 respondents out of a sample size of 130. Grounded on Liberal Institutionalism theory, the study argued that UNEP has played a key role in the implementation of MEA in Kenya through technical assistance and capacity building to stakeholders, advocacy and awareness raising, facilitation of stakeholders' engagements, funding and resource mobilization as well as data and information sharing. Study findings indicate that UNEP's support for key projects such as Green Infrastructure Project, Integrated Solid Waste Management (ISWM) Plan for Nairobi City County, Air Quality Improvement Programs, Sustainable Urban Transport System and Clean Energy Projects have reduced air pollution and mitigated climate change in the County. The study concluded that the UNEP has enhanced Kenya's participation in international environmental debates, position Kenya as the regional leader on environmental matters and facilitated the country's access to international environmental funding which has improved the overall environmental quality of Nairobi City County alongside other urban centers in Kenya.

**Keywords:** Climate Change, Environmental Diplomacy, Multilateral Environmental Agreements

## INTRODUCTION

Biermann et al., (2021) observes that international organizations play a pivotal role in environmental protection by facilitating collaboration among nations and other stakeholders on a global scale. International organizations such as United Nations (UN) and Africa Union (AU) provide forums for dialogue, knowledge-sharing, and policy development to advance environmental sustainability agendas (Kanie & Betsill, 2018). These organizations navigate complex interactions and negotiations among sovereign states to achieve consensus on environmental issues (Seto et al., 2022). International environmental politics involves intricate processes of diplomacy, multilateral negotiations, and the formulation of treaties and agreements to address trans-boundary environmental problems (Hurd, 2017). Through fostering dialogue and cooperation, international organizations help bridge diverse interests and perspectives, fostering a common understanding of shared environmental challenges and the need for collective action.

The UNEP was established in 1972 to respond to the escalating environmental degradation and its far-reaching implications on human health and ecological sustainability (UNEP, 2020). UNEP promotes international cooperation on environmental matters and serve as the principal global authority on environmental issues (Dauvergne & LeBaron, 2022). Through its various programs and initiatives, UNEP encourages the development and implementation of policies, strategies, and measures to safeguard ecosystems, mitigate pollution, conserve biodiversity, and promote sustainable resource management (Biermann et al., 2021). The UNEP serves as a catalyst for innovation and knowledge-sharing in environmental governance, fostering collaboration between governments, civil society, academia, and the private sector (UNEP, 2021).

The UNEP headquarters in Nairobi has a special engagement with Nairobi City County on collaborative efforts to enhance urban environmental management and sustainability. This partnership focuses on several key areas, such as capacity building and technical assistance, policy development and implementation, project implementation, research and data sharing on environmental matters. Kenya has ratified and implemented over 40 multilateral environmental agreements (MEAs), reflecting its commitment to addressing global environmental challenges. Multilateral Environmental Agreements (MEAs) are international treaties or agreements between multiple countries aimed at addressing environmental challenges that transcend national borders. These agreements cover a wide range of issues, from biodiversity conservation and climate change to sustainable development and pollution control. It is against this background that this study examines efforts made by the UNEP in implementing MEAs aimed at safeguarding urban environment of Nairobi City County, Kenya between 1992 and 2022.

### **Statement of the Problem**

Nairobi City faces environmental challenges such as air and water pollution, waste management issues, deforestation despite hosting the UNEP headquarters. Chepkorir et al. (2022) highlights that ambient air pollution levels in most residential, industrial, and commercial areas in the County surpass the maximum limits recommended by the World Health Organization (WHO). According to the NEMA report for 2019-2021, Nairobi City County generates approximately 2,977 tons of solid waste yearly, of which only about 1,646.1 tons, or 55.3%, is collected. This low collection rate highlights significant waste management challenges in Nairobi, contributing to increased pollution, public health risks, and environmental degradation. This has prompted the UNEP to engage with the Nairobi City County in collaborative efforts aimed at addressing emerging environmental challenges. This study sought to explore UNEP's intervention efforts in safeguarding the urban environment of Nairobi City County through the implementation of Multilateral Environmental Agreements between 1992 and 2022.

### **Specific Objective of The Study**

To explore efforts made by the UNEP in implementing MEAs aimed at safeguarding urban environment of Nairobi City County

### **Review Of Related Literature**

MEAs are legally negotiated pacts or treaties established between three or more states to tackle cross border environmental issues (Mitchell, 2003). MEAs address several environmental issues of global concerns such as pollution and deforestation (UNEP, 2023). States and international organizations are parties to MEAs. The above reviewed studies gave a general definition of MEA, parties to MEA and its role in addressing transnational challenges. However, it did not give analysis on how international organizations such as UNEP have helped in the implementation of MEA in Kenya.

Global environmental challenges require international cooperation and states have entered into Multilateral Environmental Agreements (MEA) to address those challenges (Lundberg, 2019). According to Steiner et al., (2003), MEAs help in resolving trans-boundary environmental problems and sharing of crucial information on environmental protection. However, effective implementation of MEAs is faced with numerous hurdles.

Mireri and Kamau (2016) note that states need to ratify MEAs into domestic laws and unsupportive political class may impede its implementation since the leadership of a country is crucial in resource allocations for environmental programs.

Chasek (2010) adds that the challenges facing implementation of MEAs in developing countries are; lack of capacity, lack of coordination mechanism, lack of information and data sharing among states, and inadequate funding programs. Environmental treaties and coalitions also have limitations because they rely on voluntary compliance rather than coercive compliance (Lawrence, 2004). The reviewed gave an overview of the importance of MEA and the challenges that countries face in the implementation such as inadequate funding. However, the studies lacked specifics on how international organizations like UNEP have assisted countries such as Kenya to overcome those challenges which included lack of capacity and information sharing.

United Nations Industrial Development Organization (UNIDO) has been assisting states to implement Montreal Protocols and other protocols that are intended to mitigate climate change (UNIDP 2021). UNEP has supported Asian countries in addressing climate change through capacity building, technical assistance and facilitating access to climate finance for Asian countries to undertake mitigation and adaptation actions (UNEP, 2017). The reviewed studies demonstrated how UNDP and UNEP have helped to implement MEA through technical capacity and technical assistance. However, the study was focused in Asian countries and the findings could not be used to draw conclusion for Kenyan case. The level of development in Kenya and Asian countries might not be equal and the type of assistance needed for MEA implementation could also vary.

Burungi and Ssempebwa (2020) observe that UNEP has been actively involved in capacity building in Africa to enable African states to meet their MEAs obligations. This assistance includes support for development of national environmental policies and strategies that ensures effective implementation of Meas Wood (2019) documents that the Intergovernmental Authority on Development (IGAD) has been assisting member states to implement IGAD Free Movement Protocol. The protocol allows people affected by climate change and other disasters to take refuge in member states. Burungi and Ssempebwa (2020) give a general overview on how UNEP has assisted African countries to meet MEA obligations. However, the study lacked specifics on how UNEP has helped Kenya in particular to meet its obligations on MEA.

## **Theoretical Framework**

This study was grounded on Liberal Institutionalism theory. The theory emerged in the 1970s and key proponents in this school of thought are Robert O. Keohane, Joseph S. Nye, and John Ruggie who contributed to the understanding of multilateralism and how international organizations shape state behavior. Central to the theory is the belief that international institutions such as the United Nations, World Trade Organization, and UNEP play a crucial role in facilitating cooperation among states with a view of addressing global challenges such as conflicts, environmental degradation or pandemic. The proponents of the theory believe that international institutions plays a key role in reducing information asymmetries and facilitating the sharing of technical expertise, which enable states to solve global challenges collectively (Axelrod & Keohane, 1985).

The second tenet of Liberal Institutionalism theory is its emphasis on the importance of international law and norms in maintaining order within the international system. The proponents argue that, by establishing rules and ensuring compliance, institutions play a pivotal role in promoting stability and predictability in global interactions. Adherence to these rules, according to Liberal Institutionalism, fosters a more orderly international environment, where cooperation is prioritized over conflict (Keohane, 2005). Therefore, international institutions act as guarantors of international law by ensuring that states uphold agreements and norms that are critical to global governance.

Another tenet of Liberal Institutionalism theory is the view of international organizations as vital arenas for dialogue, negotiation, and diplomacy, allowing states to achieve mutual benefits through cooperation. The proponents of the theory argue that issues such as climate change, security, and development require joint

efforts, and these institutions provide the framework needed for effective resource allocation and knowledge-sharing. The Liberal Institutionalism theory argued that UNEP has played a key role in the implementation of MEA in Kenya through technical assistance and capacity building to stakeholders, advocacy and awareness raising, facilitation of stakeholders' engagements, funding and resource mobilization as well as data and information sharing.

## METHODOLOGY

This study was in the form of a descriptive and explanatory research designs. A total of 130 respondents as distributed in Table 1.1 below.

Category	Sample population	Percentages %
NEMA officials	14	10.77%
KWS staff	12	9.23%
Members of the Parliamentary Committee on Environment and Lands	8	6.15%
MFA staff	8	6.15%
Nairobi residents	35	26.92%
KFS staff	14	10.77%
Nairobi county Government officials	5	3.86%
Employees of environmental CBOs	26	20%
UNEP officials	8	6.15%
Total	130	100%

There is no consensus among authors over the sample size for qualitative research or the number of informants that need be interviewed before a theoretical saturation is reached (Bryman, 2012). However, the sample size should not be too small to prevent realization of data saturation. Equally, it should not be too large to make deep case analysis difficult (Onwuegbuzie & Collins, 2007). The number 130 respondents were arrived at after data saturation point was reached.

The main research instruments for this study comprised structured questionnaires and interviews schedules with open ended questions. Structure questionnaires generated quantitative data that was analyzed quantitatively and presented as percentages. Interview schedules on the other hand generated qualitative that was analyzed qualitatively through documentary review and content analysis and presented as themes. Out of the 130 respondents, 104 representing 80% responded.

Out of those who responded, 55.7% were of the male while 44.23% were female. A total of 56.73% of respondents belong to the young adult age group of 18-35 years, with 26.92% aged 18-25 and 29.81% aged 26-35. The mid-life demographic, consisting of individuals aged 36-45, accounts for 25.96% of the population. Meanwhile, the older demographic, which includes those aged 46-55 (10.58%) and individuals above 55 years (6.73%), comprises 17.31% of the respondents. The educational attainment of respondents reveals that 3.85% completed primary education, while 18.27% reached secondary level. Those with tertiary education constitute 17.30%, and 44.23% hold an undergraduate degree. Additionally, 16.35% have attained a postgraduate degree.

## FINDINGS OF THE STUDY

### The UNEP and the Implementation of MEAs in Nairobi, Kenya

This study specifically focuses on the MEAs that have a direct impact on the urban environment of Nairobi City County. To achieve its intended objective this study explored the numerous efforts made by UNEP in the implementation of MEAs in Nairobi, Kenya. The efforts explored include; UNEP support in MEA implementation; Technical assistance and Capacity Building, Advocacy and Awareness, Funding and

Resource Mobilization, Data and Information Sharing and Facilitation of Stakeholders Engagement. The findings are summarized in Table 1.2 below

Table 1.2: UNEP support in MEA Implementation

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
UNEP has helped stakeholders in Kenya with technical support and capacity building for MEA implementation.	0%	0%	5.62%	44.67%	49.71%
UNEP's advocacy and awareness rising in Kenya is crucial for MEA implementation.	0%	0%	46.64%	30.65%	22.71%
UNEP has assisted Kenya in mobilizing resources for effective MEA implementation.	0%	0%	9.12%	50.12%	40.76%
UNEP has facilitated the exchange of information and best practices for effective MEA implementation in Kenya.	0%	0%	7.66%	53.13%	39.26%
UNEP has facilitation stakeholder's engagement towards effective implementation of MEAs in Nairobi City Count.	0%	0%	31%	37%	32%

### Technical Assistance and Capacity Building

UNEP has been instrumental in building capacities of stakeholders in Nairobi through training programs, workshops and seminars to enhance their ability to implement and comply with Meas In 2015, UNEP provided technical assistance to Nairobi City County under the Basel Convention on the control of cross-bouder movements of hazardous wastes. This included capacity-building workshops for county officials and stakeholders on waste management, especially electronic waste (e-waste), which is a growing challenge in urban areas. In 2019, UNEP also facilitated training under the United Nations Framework Convention on Climate Change (UNFCCC) to enhance the capacity of Nairobi-based institutions to develop strategies for mitigating urban heat islands and improve resilience to climate impacts. Additionally, in 2009, UNEP was instrumental in the development of Integrated Solid Waste Management (ISWM) Plan for Nairobi City County (Nairobi City Council, 2010).

Another notable example is UNEP's support in 2020, when its experts collaborated with Kenya to develop the Kenya National Energy Efficiency & Conservation Strategy (NEECS). The strategy aimed at improving energy efficiency by reducing reliance on fossil fuels and increasing the use of renewable energy sources to meet the country's growing energy needs. By promoting energy efficiency, NEECS has contributed to a significant reduction of greenhouse gas emissions in Nairobi and other major cities in Kenya, which has helped in mitigating air pollution and improving overall urban air quality. The emphasis on enhancing renewable energy potential has reduced the demand for fossil fuels, leading to fewer carbon emissions and helping Nairobi transition towards a cleaner, greener energy system in alignment with Kenya's commitments to the Paris Agreement and the Sustainable Development Goal (SDGs).

According to NEMA (2006), UNEP provided adequate technical assistance during the development of Kenya National Capacity Needs Self-Assessment (KNCSA). The areas of focus for Kenya's KNCSA were; mainstreaming MEAs into national policies, information sharing, public awareness on MEAs and capacity building. According to Gok (2023), UNEP offered technical assistance to NEMA and Ministry of Health officials in drafting regulations that affected the Stockholm Convention on Persistent Organic Pollutants in Kenya. The regulations guided production, use, import and export, and disposal of Dichloro- Diphenyl-Trichloroethane (DDT) in Kenya. The results affirm Liberal institutionalism theory's assertions that international institutions play an important role in solving global challenges, such as environmental degradation.



---

## Advocacy And Awareness Raising

International institutions play a significant role in raising awareness on issues that require collective action, such as environmental challenges. The study established that a significant portion of respondents recognize UNEP's advocacy and awareness-raising efforts as essential for the effective implementation of Multilateral Environmental Agreements (MEAs) in Nairobi City County.

UNEP has been actively engaging stakeholders in Nairobi City County through advocacy and awareness campaigns related to Meas UNEP staff engages with key stakeholders, including the Nairobi County Government, the Ministry of Environment, Community-Based Organizations (CBOs), the private sector, NEMA, and other institutions responsible for MEA implementation. Through these stakeholder engagements, UNEP facilitates dialogues, consultations, and partnerships to build consensus and encourage broad participation in MEA implementation.

In addition to stakeholder engagement, UNEP has utilized public awareness campaigns to educate the general public about the importance of Meas These campaigns employ various media platforms, including social media, print, and broadcast media, to reach diverse audiences. Additionally, UNEP capitalizes on World Environment Day celebrations in Nairobi to increase awareness of its programs including importance of MEAs. A study by Otieno et al. (2020) highlights that UNEP's educational programs, such as school-based environmental clubs, have been effective in instilling environmental consciousness among Nairobi's youth.

UNEP also leverages on global conferences and forums held at its Nairobi headquarters to highlight the significance of Meas These events serve as platforms for sharing experiences, challenges, and solutions related to MEA implementation. UNEP's collaboration with the World Customs Organization (WCO) was essential in the implementation of conventions such as the Basel Convention and the Montreal Protocol. According to WCO (2022), UNEP and WCO sensitized key stakeholders, including the Kenya Revenue Authority (KRA), on curbing the cross-border movement of Ozone-Depleting Substances (ODS), demonstrating the critical role UNEP plays in the enforcement of these agreements.

In 2020, UNEP launched a public awareness campaign in Nairobi as part of the Paris Agreement implementation efforts. The campaign targeted urban residents, raising awareness about the importance of reducing carbon footprints through sustainable transport and energy use. Additionally, in 2018, UNEP supported the Minamata Convention on Mercury by organizing advocacy programs in Nairobi aimed at educating the public and industry players about the dangers of mercury pollution, particularly in artisanal mining and healthcare sectors.

## Funding And Resource Mobilization

The mobilization of both financial and non-financial resources is essential for MEA implementation especially in developing countries like Kenya. The researcher sought to establish if UNEP has assisted in the mobilization of resources to support MEA implementation in Nairobi City County.

Liberal Institutionalism theory asserts that international organizations enable states to effectively pool resources and coordinate efforts to address global challenges that demand collective action. By fostering cooperation, international organizations help nations overcome the limitations of acting independently, ensuring a more comprehensive and unified response to issues of international concern (Keohane, 1985).

Highly urbanized cities like Nairobi City County require adequate resources to address escalating environmental challenges such as pollution, poor waste management, and deforestation. The types of resources required for urban environment protection are both financial and non-financial. Financial resources are essential for funding large-scale projects such as waste management systems, pollution control mechanisms, and green infrastructure development. Non-financial resources include technical expertise, human resources, and technology, which are vital for executing environmental protection strategies. Resource mobilization helps

to implement sustainable projects and create resilient cities that can withstand the pressures of rapid urbanization and climate change (UN-Habitat, 2022).

Mobilization of resources to implement MEAs and protect the urban environment involves several strategies, including fundraising from international donors, establishing partnerships with private sector organizations, and securing governmental support. One of the most effective ways of resource mobilization is through multilateral organizations such as UNEP, United Nations Development Programme (UNDP) among others. UNEP plays a pivotal role in enabling Nairobi City County to access global climate funds, such as the Green Climate Fund (GCF) and the Adaptation Fund, to finance climate-resilient infrastructure and urban planning projects. These funds are crucial for financing projects such as the restoration of green spaces, enhancement of water resource management, and development of sustainable urban transport systems in the county.

The funding facilitated the development of the Environmental Management and Co-Ordination (Controlled Substances) Regulations of 2020, which provide a comprehensive framework for regulating controlled substances that harm the ozone layer. These regulations have had a direct and positive effect on the environmental quality of Nairobi by controlling the production, trade, and use of harmful substances. They promote the adoption of ozone-friendly technologies and products while ensuring that depleting substances are phased out. The enhanced regulatory environment has not only contributed to Nairobi's compliance with international environmental obligations but also improved air quality, benefiting public health and promoting sustainable urban living. Furthermore, the data collection systems established under these regulations has strengthened Nairobi's capacity to monitor and report on ozone-depleting substances, making the city a model for urban environmental management in line with global standards.

### **Data And Information Sharing**

The exchange of information and data is essential for effective implementation of MEAs aimed at protecting urban environment. Liberal institutionalism theory argues that international organizations assist states in lowering the costs of acquiring information and developing technical expertise (Keohane & Nye, 1977).

Information and data sharing is critical for effective implementation of MEAs. because it ensures that stakeholders, such as government agencies, local authorities, and the public, have access to up-to-date, accurate information for informed decision making. This exchange also promotes transparency and accountability, as it allows for monitoring progress and identifying areas that need further attention. By sharing best practices, cities learn from successful initiatives in other regions, fostering innovation and improving the effectiveness of local environmental strategies (Ivanova, 2023).

The types of data and information shared in the implementation of MEA include; environmental indicators, such as pollution levels, biodiversity status, and waste management statistics. Technical data on air and water quality, land use changes, and urban infrastructure are also crucial. Information regarding policy frameworks, compliance mechanisms, and successful case studies from other regions is shared to inform local decision making and guide the adoption of best practices (UN-Habitat, 2021).

Sharing data and information on the implementation of Multilateral Environmental Agreements (MEAs) for urban environment protection can occur through various channels. UNEP facilitates information exchanges among stakeholders in Nairobi through conferences, workshops, and webinars where stakeholders exchange knowledge and best practices. According to Bett (2021), UNEP's neutrality and credibility enable it to mediate between different stakeholders, ensuring that information is shared openly and utilized to advance urban environmental protection.

In 2021, UNEP developed an online portal in partnership with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), where stakeholders in Nairobi and across the country could access data on endangered species and track wildlife trafficking incidents. This helped the county monitor and curb illegal wildlife trade. Additionally, UNEP's collaboration with Nairobi in 2018 under the

Kyoto Protocol involved sharing carbon emissions data that informed Nairobi's urban planning and climate action strategies.

## Facilitation Of Stakeholders Engagement

Liberal Institutionalism theory emphasizes the importance of international organization in facilitating cooperation towards addressing global challenges such as climate change and environmental degradation. International organizations play a pivotal role in facilitating stakeholder engagement, which is essential for the successful implementation of Multilateral Environmental Agreements (MEAs). These organizations, such as UNEP, act as intermediaries, fostering collaboration between governments, private sector entities, civil society, and local communities to ensure inclusive participation in environmental governance. By creating platforms for dialogue and consultations, international organizations help build consensus and align stakeholders with MEA objectives, leading to more effective environmental policy implementation and compliance.

Effective stakeholder engagement enhances transparency, accountability, and shared responsibility, making it a critical factor in addressing global environmental challenges through MEAs (UNEP, 2019). UNEP has acted as a bridge between various stakeholders in Nairobi, including governmental bodies, non-governmental organizations (NGOs), the private sector, and civil society in fostering a collaborative approach to addressing environmental challenges. Through workshops, conferences, and public awareness campaigns, UNEP has provided a platform for these stakeholders to contribute to decision-making processes and implementation strategies, ensuring a holistic approach to environmental governance in Nairobi (UNEP, 2018).

Under the UN Convention to Combat Desertification (UNCCD), UNEP facilitated multi-stakeholder dialogues in Nairobi City County in 2016, which brought together government agencies, civil society, and local communities to develop a localized action plan on land degradation and urban forestry. This engagement not only ensured that the MEA was implemented effectively but also allowed Nairobi's stakeholders to contribute to policy decisions (UNEP, 2016). Similarly, UNEP spearheaded stakeholder consultations in 2021 to align Nairobi's urban environmental policies with the objectives of the Paris Agreement, focusing on sustainable urban planning.

## CONCLUSION

This study noted that the UNEP has been instrumental in building capacities of stakeholders in Nairobi through training programs, workshops and seminars to enhance their ability to implement and comply with Meas It was observed that UNEP interventions through capacity building and technical assistance in MEA implementation have impacted positively on urban environment of Nairobi City County. The UNEP it was noted plays a significant role in raising awareness on issues that require collective action, such as environmental challenges in Nairobi County.

The UNEP through the UNDP) has played a pivotal role in enabling Nairobi City County to access global climate funds crucial for financing projects such as the restoration of green spaces, enhancement of water resource management, and development of sustainable urban transport systems in the county. Furthermore, efforts by UNEP in data and information sharing have promoted transparency and accountability through monitoring progress and identifying areas that need further attention. Finally, it was noted that, UNEP has facilitated multi-stakeholder dialogues in Nairobi City County which bring t together government agencies, civil society, and local communities to develop a localized action plan on land degradation and urban forestry.

## REFERENCES

### Published Books

1. Bryman, A. (2012). *Social Research Methods, 4th.Ed.* Oxford University Press



2. Ivanova, M. (2023). International Environmental Governance and MEA Implementation. Cambridge University Press.
3. Keohane, R. And Nye, J. (1977). Power and Interdependence: World Politics in Transition. Little Brown
4. Keohane, R. O. (1984). After Hegemony: Cooperation and Discord in the World Political Economy. Princeton University Press.
5. Onwuegbuzie, A.J & Collins, K.M (2007). *A Typology of Mixed Methods Sampling Designs in Social Science Research*. The Qualitative Report 12(2) 281-316.

### Journals Articles.

1. Axelrod, R., & Keohane, R. O. (1985). Achieving Cooperation under Anarchy: Strategies and Institutions. *World Politics*, 38(1), 226–254.
2. Bett, R. (2021). The Role of UNEP in Data and Information Sharing for Environmental Protection. *UNEP Reports*.
3. Biermann, F., Pattberg, P., Van Asselt, H., & Zelli, F. (2021). The fragmentation of global governance architectures: A framework for analysis. *Global Environmental Politics*, 9(4), 14-40.
4. Birungi And Sumbawa (2020) An Assessment of Health Risks Posed by Consumption Of Pesticide Residues In Fruits And Vegetables Among Residents in The Kampala Metropolitan Area In Uganda. *International Journal of Food Contamination*. Vol 9 (4)
5. Chepkorir et al. (2022): Pm2.5 Monitoring and Associated Air Quality Indices (Aquis) Using Pre-Calibrated Low-Cost Air Monitors Based on Pms5003 Laser Counters in Nairobi, Kenya. *Journal of Environmental Science, Toxicology and Food Technology*, 16(10), 33-39. 9.
6. Cheseck Pamela (2010) Global Environmental Politics. Dilemmas in World Politics. *Journal of Environmental Politics*, Vol2 (4)
7. Dauvergne Peter & Lebaron John (2022) the Globalization of Artificial Intelligence: Consequences for the Politics of Environmentalism. Vol 6(2)
8. Hurd Ian (2017). The International Rule of Law and the Limit of Politics. *Ethics and International Affairs* Vol 28 (1)
9. Kanie & Betsill (2018) The Agency of Global Environmental Consultancy Firms in Earth System Governance. *Environmental Politics* Vol2 (1).
10. Miseri , C. And Kamau, P. (2016) Assessment of the Appropriateness and Adequacy of the Existing Physical Infrastructure in Mitigating Aviation Risks at Wilson Airport. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* Volume 21, Issue 7,
11. Otieno, P., Njenga, G., & Kimani, M. (2020). "Youth engagement in environmental conservation: A case study of Nairobi City County," *Journal of Environmental Studies*, 12(4), 45-60.
12. Seto, K. C., Güneralp, B., & Hutyra, L. R. (2022). Global forecasts of urban expansion to 2030 and direct impacts on biodiversity and carbon pools. *Proceedings of the National Academy of Sciences*, 111(40), 13905-13910.

### Published Papers

1. Nairobi County Government. (2018). Nairobi City County Environmental Strategic Plan (2018-2022).
2. NEMA. (2019-2022). State of Environment Report. National Environment and Management Authority.
3. NEMA (2022). Annual Report 2022. Retrieved from NEMA official website.
4. UNEA (2024): The sixth session of the United Nations Environment Assembly (UNEA-6
5. UNDP. (2021). Resource Mobilization Strategies for Urban Environmental Projects in Developing Countries. *UNDP Reports*.
6. UNEP (2016). Nairobi River Basin Programmer: Achievements and Lessons Learned. UNEP.
7. UNEP (2018) UN Environment Goes to School – Spreading the Use of UN Information Portal on Multilateral Environmental Agreements (Infor MEA)

8. UNEP (2020) Assisting Kenya develop a national energy efficiency strategy
9. UNEP (2021). UNEP Support to Kenya: Capacity Building and Institutional Strengthening. Retrieved from UNEP official website.
10. UN-Habitat. (2021). Urban environmental management : A global assessment. UN-Habitat Report.
11. UN-Habitat. (2022). Sustainable Urban Development : Strategies for Resource Mobilisations. Nairobi : UN-Habitat Press.
12. WCO (2022) WCO Promotes Further Awareness on Customs Role in Enforcing Multilateral Environment Agreements for Kenya Revenue Authority and Tanzania Revenue Authority.