

# Restoring our Environment for a Sustainable Future

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## Restoring Our Environment for a Sustainable Future

Kariuki Muigua\*

### Abstract

*The environment plays a fundamental role in ensuring a sustainable future for both present and future generations. It provides all resources vital for human health and well-being including clean air, food, water, and energy. The environment is also the foundation upon which all economic and social development is built. However, the environment is being increasingly threatened by human activities as evidenced by environmental challenges such as land degradation, climate change, and loss of biodiversity. In light of these problems, it has become necessary to restore the environment for a sustainable future. This paper critically examines the need to restore our environment. The paper argues that restoring our environment is vital in the face of environmental problems including environmental and land degradation, climate change, and loss of biodiversity. It further posits that restoring our environment is key in ensuring a sustainable future for both present and future generations. The paper offers suggestions towards restoring our environment for a sustainable future.*

### 1.0 Introduction

Achieving a sustainable future is a universal ideal. The United Nations 2030 *Agenda for Sustainable Development*<sup>1</sup> envisions a sustainable future where all human beings can fulfill their potential in dignity and equality and in a healthy environment; where the planet is protected from degradation including through sustainable consumption and production,

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<sup>1</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., Available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (Accessed on 16/08/2024)

sustainably managing its natural resources and tackling climate change so that it can support the needs of the present and future generations; and where every person can enjoy a prosperous and fulfilling life in harmony with nature<sup>2</sup>. Further, Africa Union's *Agenda 2063*<sup>3</sup> sets out the vision of a prosperous Africa, based on inclusive growth and Sustainable Development.

The environment plays a fundamental role in ensuring a sustainable future. The environment is the foundation upon which all economic and social development is built<sup>4</sup>. Further, a healthy environment provides the resources necessary for human life and well-being now and in the future such as clean air, water, energy, fertile soil necessary for food production, and a stable climate<sup>5</sup>. The environment also supports vital economic activities including agriculture, tourism, mining, fishing, energy production among others<sup>6</sup>. The environment is therefore key for human health and well-being for both present and future generations.

Despite its fundamental importance, the environment has come under increased pressure due to human activities. The planet is facing mounting problems including environmental challenges such as climate change, pollution, and loss of biodiversity<sup>7</sup>. According to the United Nations Environment Programme (UNEP), environmental

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<sup>2</sup> Ibid

<sup>3</sup> African Union., 'Agenda 2063: The Africa we Want' Available at [https://au.int/sites/default/files/documents/33126-doc-framework\\_document\\_book.pdf](https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf) (Accessed on 16/08/2024)

<sup>4</sup> European Environment Agency., 'Caring for the Environment is Caring for Ourselves' Available at <https://www.eea.europa.eu/en/newsroom/editorial/editorial-caring-for-the-environment#:~:text=It%20gives%20us%20clean%20air,harm%20our%20own%20well%2Dbeing.> (Accessed on 16/08/2024)

<sup>5</sup> Ibid

<sup>6</sup> Ibid

<sup>7</sup> United Nations Environment Programme., 'The Triple Planetary Crisis: Forging a New Relationship Between People and the Earth' Available at [https://www.unep.org/news-and-stories/speech/triple-planetary-crisis-forging-new-relationship-between-people-and-earth?gad\\_source=1&gclid=CjwKCAjw8fu1BhBsEiwAwDrSJNpnEaH-kukuSuWFrGfYmh6JT5U0XcTOwG5xM9DY18zsMP2Z9R1RgBoC7qoQAvD\\_BwE](https://www.unep.org/news-and-stories/speech/triple-planetary-crisis-forging-new-relationship-between-people-and-earth?gad_source=1&gclid=CjwKCAjw8fu1BhBsEiwAwDrSJNpnEaH-kukuSuWFrGfYmh6JT5U0XcTOwG5xM9DY18zsMP2Z9R1RgBoC7qoQAvD_BwE) (Accessed on 16/08/2024)

degradation is prevalent throughout the world as evidenced by the depletion of natural resources; the destruction of ecosystems and the extinction of wildlife and biodiversity<sup>8</sup>. Further, it has been noted that as of today, almost a quarter of the world's total land area has been degraded<sup>9</sup>. Land degradation creates enormous problems not only for the billions of people who directly depend on agriculture, but it has far-reaching impacts affecting every single person on this planet today<sup>10</sup>. In light of these problems, it is necessary to restore the environment for a sustainable future.

This paper critically examines the need to restore our environment. The paper argues that restoring our environment is vital in the face of environmental problems including environmental and land degradation, climate change, and loss of biodiversity. It further posits that restoring our environment is key in ensuring a sustainable future for both present and future generations. The paper offers suggestions towards restoring our environment for a sustainable future.

## 2.0 Restoring Our Environment: Progress and Challenges

Restoring the environment entails assisting in the recovery of ecosystems and landscapes that have been degraded or destroyed, as well as conserving the ecosystems and landscapes that are still intact<sup>11</sup>. This process involves revitalizing degraded ecosystems to their original state, promoting biodiversity, and enhancing ecosystem services<sup>12</sup>. It aims to recreate, initiate, or accelerate the recovery of an ecosystem that has been

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<sup>8</sup> United Nations Environment Programme., 'Environmental Damage' Available at <https://leap.unep.org/en/knowledge/glossary/environmental-damage> (Accessed on 16/08/2024)

<sup>9</sup> United Nations Environment Programme., 'Land Degradation' Available at <https://www.unep.org/gef/focal-areas/land-degradation#:~:text=As%20of%20today%2C%20almost%20a,person%20on%20this%20planet%20today.> (Accessed on 16/08/2024)

<sup>10</sup> Ibid

<sup>11</sup> United Nations Environment Programme., 'What is Ecosystem Restoration' Available at <https://www.decadeonrestoration.org/what-ecosystem-restoration> (Accessed on 17/08/2024)

<sup>12</sup> Ecosystem Restoration for Climate Change Mitigation., Available at <https://tracextech.com/ecosystem-restoration-for-climate-change-mitigation/> (Accessed on 11/08/2024)

disturbed by environmental changes that alter ecosystem structure and function. Common disturbances to ecosystems include logging, damming rivers, intense grazing, hurricanes, floods, and wild fires<sup>13</sup>.

Restoring the environment is a vital process in recovering the ecological functionality and enhancing human well-being in deforested and degraded landscapes and ecosystems<sup>14</sup>. It has been noted that healthier ecosystems, with richer biodiversity, yield greater benefits such as more fertile soils, bigger yields of timber and fish, and larger stores of greenhouse gases<sup>15</sup>. The environment is crucial to human well-being providing people with clean air, water, food, building materials and a host of other essential ecosystem services<sup>16</sup>. It also provides the planet with benefits like climate protection and biodiversity conservation<sup>17</sup>. Restoring the environment therefore offers benefits for both humanity and nature. It has been pointed out that the healthier our ecosystems are, the healthier the planet - and its people<sup>18</sup>.

Ecosystem restoration has been identified as one of the most important tools for delivering nature-based solutions for food insecurity, climate change mitigation and adaptation, and biodiversity loss<sup>19</sup>. Restoring the environment not only returns ecosystems to a healthy state, but also increases the amount of carbon sequestered, improves biodiversity and the quality of soil and water in the ecosystem, and provides

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<sup>13</sup> Vaughn, K. J., et al., 'Restoration Ecology' *Nature Education Knowledge* (2010), Volume 3(10):66

<sup>14</sup> Food and Agriculture Organization., 'The Key Role of Forest and Landscape Restoration in Climate Action.' Available at <https://www.fao.org/documents/card/en/c/cc2510en> (Accessed on 17/08/2024)

<sup>15</sup> United Nations Environment Programme., 'What is Ecosystem Restoration' Op Cit

<sup>16</sup> United Nations Environment Programme., 'A Beginner's Guide to Ecosystem Restoration' Available at <https://www.unep.org/news-and-stories/story/beginners-guide-ecosystem-restoration> (Accessed on 17/08/2024)

<sup>17</sup> Ibid

<sup>18</sup> United Nations Environment Programme., 'Preventing, Halting and Reversing Loss of Nature' Available at <https://www.decadeonrestoration.org/> (Accessed on 17/08/2024)

<sup>19</sup> United Nations Environment Programme., 'Ecosystem Restoration for People, Nature and Climate' Available at <https://wedocs.unep.org/bitstream/handle/20.500.11822/36251/ERPNC.pdf> (Accessed on 17/08/2024)

economic benefits for communities that depend on such ecosystems<sup>20</sup>. For example, restoring farmlands can rebuild carbon stores in soils, making them more fertile enabling countries to feed their growing populations<sup>21</sup>. The restoration of farmland also creates habitats for wildlife<sup>22</sup>. In addition, restoring forests helps restore critical habitats for biodiversity, create jobs and income and is an effective nature-based solution to climate change<sup>23</sup>. Restoring forest ecosystems has been identified as not only a cost-effective way to mitigate climate change, but also a key process that provides numerous socio-economic benefits to local communities and the wider society<sup>24</sup>. Restoring coastal ecosystems including coral reefs, mangroves and seagrasses is key in ensuring that oceans can continue to support billions of livelihoods globally<sup>25</sup>.

Restoring the environment is therefore key in ensuring the health and well-being of humanity and nature. It has been noted that natural ecosystems play a significant role in reducing the risk of natural disasters such as floods, droughts, landslides and other extreme events<sup>26</sup>. Restoring natural ecosystems therefore represents an investment in people and livelihoods<sup>27</sup>. It is also key in conserving biodiversity. Conserving biodiversity is vital in maintaining ecosystems and increasing their productivity<sup>28</sup>. As a result, restoring the environment enhances the conservation of biodiversity which is vital

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<sup>20</sup> World Economic Forum., 'What are Natural Climate Solutions?' Available at <https://www.weforum.org/agenda/2021/09/what-are-natural-climate-solutions-ncsalliance/#:~:text=NCS%20are%20actions%20that%20avoid,forest%20conservation%2C%20restoration%20and%20managemen> (Accessed on 17/08/2024)

<sup>21</sup> United Nations Environment Programme., 'A Beginner's Guide to Ecosystem Restoration' Op Cit

<sup>22</sup> Ibid

<sup>23</sup> Greenpop., 'Forest Restoration' Available at <https://greenpop.org/forest-restoration/> (Accessed on 17/08/2024)

<sup>24</sup> International Union for Conservation of Nature., 'Restoring Forest Ecosystems Provides Multiple Benefits to Society' Available at <https://www.iucn.org/news/europe/201905/restoring-forest-ecosystemsprovides-multiple-benefits-society> (Accessed on 17/08/2024)

<sup>25</sup> United Nations Environment Programme., 'A Beginner's Guide to Ecosystem Restoration' Op Cit

<sup>26</sup> Fernandez-Miranda. E., '10 Critical Actions for the Sustainable Restoration of an Ecosystem' Available at <https://dendra.io/blog/10-critical-actions-for-the-sustainable-restoration-of-an-ecosystem/> (Accessed on 17/08/2024)

<sup>27</sup> Ibid

<sup>28</sup> Ibid

for Sustainable Development and human well-being including food security, nutrition, access to water and health<sup>29</sup>.

Restoring the environment is therefore vital in fostering the Sustainable Development agenda<sup>30</sup>. It has been argued that by enhancing the capacity of nature to cater to human needs and by fostering a symbiotic relationship between man and environment, ecosystem restoration directly and indirectly influences the attainment of the Sustainable Development Goals (SDGs)<sup>31</sup>. One of the key goals under the 2030 Agenda for Sustainable Development is ensuring the conservation, *restoration*, and sustainable use of terrestrial and inland freshwater ecosystems and their services in particular forests, wetlands, mountains and drylands<sup>32</sup>. Further, the targets of SDG 15 include the implementation of sustainable management of all types of forests, halting deforestation, restoring degraded forests and substantially increasing afforestation and reforestation globally<sup>33</sup>; and combating desertification, restoring degraded land and soil including land affected by desertification, drought and floods, and striving to achieve a land degradation neutral world<sup>34</sup>. It has been noted that restoring the environment can have positive synergies with economic and climate goals, including the SDGs<sup>35</sup>.

There is an urgent need to restore the environment for a sustainable future. It has been noted that land degradation and desertification are among the most significant challenges facing the planet today<sup>36</sup>. The impacts of land degradation include food shortages,

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<sup>29</sup> Ibid

<sup>30</sup> SDG Resource Centre., 'Ecosystem Restoration' Available at <https://sdgresources.relx.com/ecosystemrestoration-0> (Accessed on 17/08/2024)

<sup>31</sup> Ibid

<sup>32</sup> United Nations General Assembly., 'Transforming Our World: the 2030 Agenda for Sustainable Development.' 21 October 2015, A/RES/70/1., SDG 15.1

<sup>33</sup> Ibid, SDG 15.2

<sup>34</sup> Ibid, SDG 15.3

<sup>35</sup> International Science Council., 'Restoring the World's Ecosystems for a Brighter Future' Available at <https://council.science/blog/restoring-the-worlds-ecosystems-for-a-brighter-future/> (Accessed on 17/08/2024)

<sup>36</sup> United Nations Environment Programme., 'Land Degradation' Op Cit



volatility and increases in food prices caused as a result of declines in the productivity of croplands; heightened impacts of climate change globally caused by the release of carbon and nitrous oxide from degrading land; and the threat of social instability from the forced migration<sup>37</sup>. In addition to land, other key ecosystems are also being degraded. For example, forests are being threatened by a wide range of pressures, including deforestation, logging, land-use change and invasive alien species, as well as severe droughts and wildfires that are worsened by climate change<sup>38</sup>. According to UNEP, the planet is losing approximately 4.7 million hectares of tropical forest every year<sup>39</sup>. It further notes that many remaining forests are degraded because of logging, firewood cutting, pollution and invasive pests<sup>40</sup>. In addition, freshwater ecosystems are being degraded by pollution, overfishing and infrastructure development as well as the extraction of large amounts of water for irrigation, industry and homes<sup>41</sup>. Further grasslands and savannahs are being degraded through overgrazing, conversion to agricultural uses and invasion by alien species<sup>42</sup>. Marine ecosystems are under assault from pollution, climate change and overexploitation<sup>43</sup>. UNEP points out that coastal and marine environments are negatively impacted by factors such as physical alteration and destruction of habitats from forestry, aquaculture, overfishing, destructive fishing, mining, dredging and dumping as well as pollution including sediments, excess nutrient flows from agriculture and other sources, plastics, as well as untreated wastewater<sup>44</sup>. Further, it has been noted that peatlands and their massive stores of carbon and water

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<sup>37</sup> Ibid

<sup>38</sup> International Union for Conservation of Nature., 'Restoring Forest Ecosystems Provides Multiple Benefits to Society' Op Cit

<sup>39</sup> United Nations Environment Programme., 'Forests' Available at <https://www.decadeonrestoration.org/types-ecosystem-restoration/forests> (Accessed on 17/08/2024)

<sup>40</sup> Ibid

<sup>41</sup> United Nations Environment Programme., 'A Beginner's Guide to Ecosystem Restoration' Op Cit

<sup>42</sup> Ibid

<sup>43</sup> Ibid

<sup>44</sup> United Nations Environment Programme., 'Ecosystem Degradation & Pollution' Available at <https://www.unep.org/topics/ocean-seas-and-coasts/ecosystem-degradation-pollution> (Accessed on 17/08/2024)

are being drained and converted for agriculture and degraded by fire, overgrazing, pollution and peat extraction<sup>45</sup>.

In light of these challenges, it is imperative to restore the environment for a sustainable future. The *United Nations Decade on Ecosystem Restoration*<sup>46</sup> embraces the urgent need to restore the environment for a sustainable future. It aims to prevent, halt and reverse the degradation of ecosystems on every continent and in every ocean<sup>47</sup>. The United Nations Decade on Ecosystem Restoration represents a rallying call for the protection and revival of ecosystems all around the world, for the benefit of humanity and nature<sup>48</sup>. This programme runs from 2021 through 2030, which is also the deadline for the global SDGs<sup>49</sup>. Implementing the United Nations Decade on Ecosystem Restoration can help the world achieve the SDGs by tackling poverty, combating climate change, halting and reversing the degradation of ecosystems and preventing a mass extinction of biodiversity<sup>50</sup>.

It is therefore imperative to restore our environment for a sustainable future.

### 3.0 Towards Restoring Our Environment for a Sustainable Future

Restoring the environment is key in ensuring a sustainable future for both humanity and nature. Ecosystem restoration provides solutions to key global challenges including climate change, biodiversity loss, food insecurity among others<sup>51</sup>. UNEP identifies ecosystem restoration as one of the most important tools for delivering nature-based solutions for food insecurity, climate change mitigation and adaptation, and biodiversity

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<sup>45</sup> United Nations Environment Programme., 'A Beginner's Guide to Ecosystem Restoration' Op Cit

<sup>46</sup> United Nations Decade on Ecosystem Restoration., Available at <https://www.decadeonrestoration.org/> (Accessed on 17/08/2024)

<sup>47</sup> Ibid

<sup>48</sup> Ibid

<sup>49</sup> Ibid

<sup>50</sup> Ibid

<sup>51</sup> Wu. X., 'Adapting Ecosystem Restoration for Sustainable Development in a Changing World' Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9867968/> (Accessed on 17/08/2024)

loss<sup>52</sup>. Restoring the environment is key to the prosperity and well-being of people and nature<sup>53</sup>. It has been noted that vibrant ecosystems provide essential benefits including food, water, and health that our growing population needs today and will need in the future<sup>54</sup>.

According to UNEP, ecosystem restoration is needed on a large scale in order to achieve the Sustainable Development agenda<sup>55</sup>. It has been noted that over-exploitation of natural resources is embedded in economies and governance systems, and the resulting degradation is undermining hard-won development gains and threatening the well-being of present and future generations<sup>56</sup>. It has been noted that most ecosystems be they terrestrial, marine or coastal, are in need of protection and restoration<sup>57</sup>. The restoration agenda is fundamentally intertwined with tackling climate change and achieving the SDGs. Restoring the environment by preventing, halting and reversing degradation is needed to achieve global climate goals by 2030, while restoration through agroforestry alone has the potential to increase food security for over 1.3 billion people globally<sup>58</sup>.

In order to restore damage and degraded farmlands, it is imperative to embrace measures such as reducing tillage, using more natural fertilizer and pest control, and growing more

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<sup>52</sup> United Nations Environment Programme., 'Ecosystem Restoration for People, Nature and Climate' Op Cit

<sup>53</sup> United Nations Environment Programme., 'Ecosystem Restoration for People, Nature and Climate' Available at <https://www.unep.org/interactive/ecosystem-restoration-people-nature-climate/en/index.php#:~:text=We%20must%20restore%20ecosystems%20to,ecosystems%20and%20their%20carbon%20stores> (Accessed on 17/08/2024)

<sup>54</sup> Ibid

<sup>55</sup> United Nations Environment Programme., 'Ecosystem Restoration for People, Nature and Climate' Op Cit

<sup>56</sup> Ibid

<sup>57</sup> United Nations Environment Programme., '10 years to Boost Ecosystem Restoration for People and Planet' Available at <https://www.unep-wcmc.org/en/news/10-years-to-boost-ecosystem-restoration-for-people-and-planet> (Accessed on 17/08/2024)

<sup>58</sup> United Nations Environment Programme World Conservation Monitoring Centre., 'Ecosystem Restoration Key to Future of People and Planet, New Report' Available at <https://www.unep-wcmc.org/en/news/ecosystem-restoration-key-to-future-of-people-and-planet--new-report> (Accessed on 17/08/2024)

diverse crops, including trees<sup>59</sup>. It has been noted that land restoration practices such as reforestation, soil conservation, and the protection of natural processes are key in enhancing biodiversity, restoring crucial ecosystem services, and mitigating the impacts of climate change<sup>60</sup>. Further, restoring forest ecosystem requires approaches such as reforestation, assisted natural regeneration, agroforestry, and afforestation<sup>61</sup>. These approaches involve different techniques, such as planting new trees, removing invasive species, or reintroducing native plants and animals in a forest ecosystem<sup>62</sup>. The *Bonn Challenge*<sup>63</sup> is a global goal that seeks to restore 350 million hectares of the world's degraded and deforested lands by 2030. In addition, the *African Forest Landscape Restoration Initiative*<sup>64</sup> aims to contribute to the Bonn Challenge and African Union's Agenda 2063 through its target of restoring 100 million hectares of land across Africa by 2030. Meeting these ambitious global and regional targets is vital in restoring forests for sustainability. It has been noted that restoring forest ecosystems helps to conserve biodiversity, mitigate climate change, and support sustainable livelihoods for local communities<sup>65</sup>.

Further, there is need to halt pollution, reduce and treat waste, manage the demand for water and fish, and revive vegetation above and below the surface in order to restore freshwater ecosystems such as rivers and lakes<sup>66</sup>. Rivers and lakes have been identified

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<sup>59</sup> United Nations Environment Programme., 'A Beginner's Guide to Ecosystem Restoration' Op Cit

<sup>60</sup> United Nations University's Institute for Environment and Human Security., 'Land Restoration: 5 Key Elements of Reviving Our Earth' Available at <https://unu.edu/ehs/series/land-restoration-5-key-elements-reviving-our-earth#:~:text=Land%20restoration%20refers%20to%20the,and%20mitigate%20climate%20change%20impacts>. (Accessed on 17/08/2024)

<sup>61</sup> Muigua. K., 'Restoring Landscapes and Ecosystems for Climate Mitigation' Available at <https://kmco.co.ke/wp-content/uploads/2024/02/Restoring-Landscapes-and-Ecosystems-for-ClimateMitigation.pdf> (Accessed on 17/08/2024)

<sup>62</sup> Ibid

<sup>63</sup> The Bonn Challenge., Available at <https://www.bonnchallenge.org/> (Accessed on 17/08/2024)

<sup>64</sup> African Forest Landscape Restoration Initiative., Available at <https://afr100.org/> (Accessed on 17/08/2024)

<sup>65</sup> Muigua. K., 'Restoring Landscapes and Ecosystems for Climate Mitigation' Op Cit

<sup>66</sup> United Nations Environment Programme., 'A Beginner's Guide to Ecosystem Restoration' Op Cit

as among the most degraded ecosystems in the world, with fish populations, many of which are vital for local, national, and global food security, pushed to the brink<sup>67</sup>. Healthy freshwater ecosystems are central to water and food security, while also tackling the climate and nature crises, and driving Sustainable Development<sup>68</sup>. Restoring rivers and lakes is thus crucial in ensuring a sustainable future. For marine ecosystems, it is crucial to restore degraded habitats, such as coral reefs and mangroves, and rehabilitate injured or sick marine animals<sup>69</sup>. It is also necessary to promote sustainable fishing practices in seas and oceans, establish marine protected areas, and curb marine pollution in order to restore marine ecosystems<sup>70</sup>. Restoration of marine ecosystems is an important strategy for mitigating climate change, bolstering biodiversity, and sustaining blue economies<sup>71</sup>.

Grasslands and savannahs can be restored by clearing woody vegetation and re-seeding native grasses<sup>72</sup>. In addition, lost plants and animals can be re-introduced and protected until they are established in these ecosystems<sup>73</sup>. It has further been pointed out that controlled wildfires remove most of the overgrown, non-native, and weedy plant species within a grassland ecosystem making space for younger native grasses<sup>74</sup>. In addition, nature-based solutions including increased forest cover can conserve soil, safeguard water flows and guard against natural disasters such as avalanches, landslides and floods therefore protecting mountain ecosystems and livelihoods<sup>75</sup>.

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<sup>67</sup> United Nations Environment Programme., 'Largest River and Wetland Restoration Initiative in History Launched at UN Water Conference' Available at <https://www.unep.org/news-and-stories/press-release/largest-river-and-wetland-restoration-initiative-history-launched-un> (Accessed on 17/08/2024)

<sup>68</sup> Ibid

<sup>69</sup> Colson. D., 'Marine Conservation Strategies Aimed Toward Healthy Oceans' Available at <https://www.transformationholdings.com/environment/marine-conservation-strategies-aimed-towardhealthy-oceans/> (Accessed on 17/08/2024)

<sup>70</sup> Ibid

<sup>71</sup> Fuchs. G., 'Marine and Coastal Ecosystem Restoration' Available at <https://www.ecologic.eu/sites/default/files/presentation/2023/Fuchs-23-Marine-and-coastalecosystem.pdf> (Accessed on 17/08/2024)

<sup>72</sup> United Nations Environment Programme., 'A Beginner's Guide to Ecosystem Restoration' Op Cit

<sup>73</sup> Ibid

<sup>74</sup> Grassland Management - Restoring Iconic Landscapes and Species., Available at <https://www.nps.gov/articles/grasslandrestoration.htm> (Accessed on 17/08/2024)

<sup>75</sup> United Nations Environment Programme., 'Mountains' Available at <https://www.decadeonrestoration.org/types-ecosystem->

#### 4.0 Conclusion

Restoring the environment is a vital process in recovering the ecological functionality and enhancing human well-being in deforested and degraded landscapes and ecosystems<sup>76</sup>. It is a key process that fosters Sustainable Development by enhancing the capacity of nature to cater to human needs and by fostering a symbiotic relationship between man and environment<sup>77</sup>. Ecosystem restoration is one of the most important tools for delivering nature-based solutions for food insecurity, climate change mitigation and adaptation, and biodiversity loss<sup>78</sup>. Restoring the environment is an urgent concern in wake of environmental degradation as evidenced by land degradation, desertification, deforestation, loss of biodiversity, and the degradation of key ecosystems including rivers, lakes, mountains, grasslands, and marine ecosystems<sup>79</sup>. The *United Nations Decade on Ecosystem Restoration*<sup>80</sup> sets out the global agenda on restoring the environment. It is therefore imperative to restore all vital ecosystems including farmlands, forests, rivers and lakes, grasslands and savannah, mountains, peatlands, and marine ecosystems for sustainability. It is also vital to embrace indigenous knowledge in restoring the environment which has been identified as an important resource in keeping the use of natural resources sustainable<sup>81</sup>.

Restoring our environment for a sustainable future is therefore possible and achievable. We should pursue this ideal in order to create harmony between humanity and nature for posterity.

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[restoration/mountains#:~:text=Restoring%20mountain%20ecosystems%20means%20considering,as%20avalanches%2C%20landslides%20and%20floods.](#) (Accessed on 17/08/2024)

<sup>76</sup> Food and Agriculture Organization., 'The Key Role of Forest and Landscape Restoration in Climate Action.' Op Cit

<sup>77</sup> SDG Resource Centre., 'Ecosystem Restoration' Op Cit

<sup>78</sup> United Nations Environment Programme., 'Ecosystem Restoration for People, Nature and Climate' Op Cit

<sup>79</sup> United Nations Environment Programme., 'A Beginner's Guide to Ecosystem Restoration' Op Cit

<sup>80</sup> United Nations Decade on Ecosystem Restoration., Op Cit

<sup>81</sup> United Nations Environment Programme., 'Mountains' Op Cit

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