

**Conservation of Migratory Species:  
Strengthening Current Frameworks for  
Environmental Justice and Posterity**

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**Kariuki Muigua**

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**Conservation of Migratory Species?: Strengthening Current Frameworks for Environmental Justice and Posterity**

**Kariuki Muigua\***

**Abstract**

*This paper discusses approaches towards ensuring sound conservation of migratory species. The paper defines migratory species. It observes that migratory species are a unique form of biodiversity that play a key role in ensuring ecosystem health and Sustainable Development. Despite their importance for people and planet, the paper notes that migratory species all over the world are facing mounting threats. It discusses some of the key challenges to migratory species. In light of such threats, the paper posits that conserving migratory species is a fundamental goal all over the world towards achieving global biodiversity and sustainable development goals. In particular, the paper notes that the transboundary nature of migratory species requires effective and uniform frameworks and international cooperation for sustainable outcomes. The paper suggests how current frameworks can be strengthened towards sound conservation of migratory species for environmental justice and posterity.*

**1.0 Introduction**

Conservation of biological diversity (biodiversity) is a global imperative in the pursuit of Sustainable Development. It has been observed that biodiversity is at the heart of Sustainable Development providing vital services such as clean air, water, food, medicine and climate regulation thus ensuring human and ecosystem health<sup>1</sup>. Further, biodiversity also supports economic growth and livelihoods in sectors such as agriculture, forestry,

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<sup>1</sup> United Nations Environment Programme., 'Biodiversity: our solutions are in nature' Available at <https://www.unep.org/news-and-stories/story/biodiversity-our-solutions-are-nature> (Accessed on 27/02/2026)

fisheries and tourism<sup>2</sup>. Despite playing an important role in the pursuit of Sustainable Development, it has been observed that the world is witnessing an unprecedented and alarming loss of biodiversity<sup>3</sup>. Human-induced activities and environmental factors including overexploitation of natural resources, pollution, changes in land use, deforestation, infrastructure development and climate change are driving the loss of plant and animal species and degradation of ecosystems with severe consequences for people and planet<sup>4</sup>.

In light of the impact of biodiversity loss on Sustainable Development, the global community has put in place several frameworks towards fostering sound biodiversity conservation. For instance, the *Convention on Biological Diversity*<sup>5</sup> was adopted to foster the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources<sup>6</sup>. Further, the *Kunming-Montreal Global Biodiversity Framework (GBF)*<sup>7</sup> was adopted towards strengthening efforts to conserve biodiversity worldwide for Sustainable Development. The GBF aims to halt and reverse biodiversity loss and ensure sustainable use of biodiversity towards meeting the objectives of the Convention on Biological Diversity and enhancing the role of biodiversity in Sustainable Development<sup>8</sup>. Further, the United

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<sup>2</sup> United Nations Development Programme., 'Biodiversity and the 2030 Agenda for Sustainable Development' Available at [https://www.undp.org/sites/g/files/zskgke326/files/publications/Biodiversity\\_2030\\_Agenda\\_PolicyBrief.pdf](https://www.undp.org/sites/g/files/zskgke326/files/publications/Biodiversity_2030_Agenda_PolicyBrief.pdf) (Accessed on 27/02/2026)

<sup>3</sup> United Nations Environment Programme., 'Five drivers of the nature crisis' Available at <https://www.unep.org/news-and-stories/story/five-drivers-nature-crisis> (Accessed on 27/02/2026)

<sup>4</sup> United Nations Environment Programme., 'UNEP and Biodiversity' Available at <https://www.unep.org/unep-and-biodiversity> (Accessed on 27/02/2026)

<sup>5</sup> Convention on Biological Diversity, 5 June 1992 (1760 U.N.T.S. 69)

<sup>6</sup> Ibid, article 1

<sup>7</sup> Convention on Biological Diversity., 'Decision Adopted by the Conference of the Parties to the Convention on Biological Diversity: 15/4. Kunming-Montreal Global Biodiversity Framework' Available at <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf> (Accessed on 27/02/2026)

<sup>8</sup> Ibid

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Nations 2030 Agenda for Sustainable Development<sup>9</sup> acknowledges that the conservation of biological diversity is a vital global ideal in the pursuit of sustainability. Sustainable Development Goal (SDG) 15 seeks to *inter alia* halt the loss of biodiversity for Sustainable Development<sup>10</sup>. It urges countries to take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity, and protect and prevent the extinction of threatened species<sup>11</sup>.

However, in light of ongoing global biodiversity loss, it has become necessary to strengthen current frameworks in order to ensure sustainable use and conservation of biodiversity for Sustainable Development. In particular, it has been observed that the unique nature of migratory species requires effective frameworks and international cooperation for sound conservation efforts<sup>12</sup>.

This paper discusses approaches towards ensuring sound conservation of migratory species. The paper defines migratory species. It observes that migratory species are a unique form of biodiversity that play a key role in ensuring ecosystem health and Sustainable Development. Despite their importance for people and planet, the paper notes that migratory species all over the world are facing mounting threats. It discusses some of the key challenges to migratory species. In light of such threats, the paper posits that conserving migratory species is a fundamental goal all over the world towards achieving global biodiversity and sustainable development goals. In particular, the paper notes that the transboundary nature of migratory species requires effective and uniform

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<sup>9</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 27/02/2026)

<sup>10</sup> Ibid

<sup>11</sup> Ibid

<sup>12</sup> Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals., 'Migratory Species and Climate Change' Available at <https://www.cms.int/publication/migratory-species-and-climate-change> (Accessed on 27/02/2026)

frameworks and international cooperation for sustainable outcomes. The paper suggests how current frameworks can be strengthened towards sound conservation of migratory species for environmental justice and posterity.

## **2.0 Migratory Species and Sustainable Development: Promises and Pitfalls**

Migratory species have been defined as the entire population or any part of the population of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries<sup>13</sup>. Migratory species can also be described as animal species that move from one habitat to another during different times of the year often influenced by factors such as climate change, limited availability of food, and changes in habitats<sup>14</sup>. It has been observed that migratory species include birds, species of fish, mammals, insects and reptiles which travel thousands of kilometers in search of suitable habitats for feeding and breeding<sup>15</sup>. In particular, it has been observed that some species of birds migrate across jurisdictions to access abundant food, optimal breeding conditions, and favourable climates<sup>16</sup>. Further, migration is common among some mammal species such as wildebeest migration where large herds travel hundreds of kilometers in search of water and pasture across Kenya and Tanzania<sup>17</sup>. In addition, migration usually happens among marine species including seabirds, turtles, sharks, whales, and tuna which traverse both within and beyond national jurisdictions in search of conducive habitats<sup>18</sup>.

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<sup>13</sup> Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, 1651 U.N.T.S. 333.,

<sup>14</sup> Migratory Species., Available at <https://www.encyclopedia.com/environment/energy-government-and-defense-magazines/migratory-species> (Accessed on 28/02/2026)

<sup>15</sup> Walsh. A., 'What are migratory species and why are they threatened?' Available at <https://www.dw.com/en/migratory-species-extinction-climate-anthropocene/a-68206110> (Accessed on 28/02/2026)

<sup>16</sup> The Migratory Birds of Tsavo., Available at <https://tsavotrust.org/the-migratory-birds-of-tsavo/> (Accessed on 28/02/2026)

<sup>17</sup> Walsh. A., 'What are migratory species and why are they threatened?' Op Cit

<sup>18</sup> Lascelles. B et al., 'Migratory marine species: Their status, threats and conservation management needs' *Aquatic Conservation Marine and Freshwater Ecosystems.*, 24(S2):111-127, 2014

Migration is therefore a common occurrence among several animal species. The United Nations Environment Programme (UNEP) observes that billions of animals make long migratory journeys each year on land, in the seas, and in the sky crossing national boundaries and continents, with some travelling thousands of miles across the globe to feed and breed<sup>19</sup>. This phenomenon plays a key role in the healthy functioning of the world's ecosystems. For instance, it has been observed that migratory species including birds and insects pollinate plants and spread seeds, thus playing a key role in global food systems<sup>20</sup>. In addition, it has been pointed out that some migratory species prey on pests therefore ensuring balanced ecosystems<sup>21</sup>. Further, it has been argued that migratory species provides benefits for people and planet due to their potential to bolster the global response to climate change<sup>22</sup>. For instance, whales can store vast amounts of carbon in their bodies, and antelopes can reduce the risk of wildfires through their grazing patterns<sup>23</sup>. Conservation of migratory species can therefore strengthen climate action.

Further, the United Nations points out that migratory species provide economic benefits and jobs in key sectors such as tourism<sup>24</sup>. Some migratory species including birds also have cultural and aesthetic significance inspiring art, religion and literature<sup>25</sup>. Migratory species are therefore important for people and planet.

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<sup>19</sup> United Nations Environment Programme., 'Landmark UN report: The world's migratory species of animals are in decline, and the global extinction risk is increasing' Available at <https://www.unep.org/news-and-stories/press-release/landmark-un-report-worlds-migratory-species-animals-are-decline-and#:~:text=Billions%20of%20animals%20make%20migratory,and%20helping%20to%20store%20carbon.> (Accessed on 28/02/2026)

<sup>20</sup> Walsh. A., 'What are migratory species and why are they threatened?' Op Cit

<sup>21</sup> United Nations Environment Programme., 'Landmark UN report: The world's migratory species of animals are in decline, and the global extinction risk is increasing' Op Cit

<sup>22</sup> Major UN report on climate change and migratory species published., Available at <https://jncc.gov.uk/news/climate-change-and-migratory-species-review/#:~:text=Migratory%20species%20provide%20many%20benefits,Sunday%2C%20December%2010%2C%202023.> (Accessed on 28/02/2026)

<sup>23</sup> Ibid

<sup>24</sup> United Nations., 'Protecting migratory species in a rapidly changing world' Available at <https://news.un.org/en/story/2020/02/1057511> (Accessed on 28/02/2026)

<sup>25</sup> Walsh. A., 'What are migratory species and why are they threatened?' Op Cit

Despite their significance, migratory species are facing major threats leading to decline in their populations. UNEP observes that migratory species face enormous challenges and threats when moving, as well at their destinations where they feed and breed<sup>26</sup>. In particular, it has been observed that migratory species are highly vulnerable to climate change since they require separate breeding, wintering, and migration habitats of high quality and in suitable locations<sup>27</sup>. However, with climate change devastating people and planet, habitats that support migratory species could be at risk because of changing temperature ranges, hydrological patterns and ecosystem degradation<sup>28</sup>. Climate change is also disrupting weather patterns that migratory species rely on thus affecting migratory behaviour<sup>29</sup>.

In addition to climate change, it has been observed that human activities including hunting along migration routes and destruction of feeding and breeding grounds are driving global loss of migratory species<sup>30</sup>. Migratory marine species are also being threatened by overfishing which results in decline in populations and marine pollution which degraded their feeding and breeding grounds<sup>31</sup>. In addition, the construction of physical barriers such as roads and fences affect the movement of migratory species on land<sup>32</sup>.

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<sup>26</sup> United Nations Environment Programme., 'Landmark UN report: The world's migratory species of animals are in decline, and the global extinction risk is increasing' Op Cit

<sup>27</sup> Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals., 'Migratory Species and Climate Change: Impacts of a Changing Environment on Wild Animals' Available at [https://www.cms.int/sites/default/files/publication/cms\\_pub\\_pop-series\\_migratory\\_species%26climate\\_change\\_e.pdf](https://www.cms.int/sites/default/files/publication/cms_pub_pop-series_migratory_species%26climate_change_e.pdf) (Accessed on 28/02/2026)

<sup>28</sup> Ibid

<sup>29</sup> Walsh. A., 'What are migratory species and why are they threatened?' Op Cit

<sup>30</sup> International Institute for Sustainable Development., 'Convention on the Conservation of Migratory Species of Wild Animals - CMS' Available at <https://enb.iisd.org/negotiations/convention-conservation-migratory-species-wild-animals-cms#:~:text=Negotiations-Convention%20on%20the%20Conservation%20of%20Migratory%20Species%20of%20Wild%20Animals,unique%20feature%20of%20the%20CMS>. (Accessed on 28/02/2026)

<sup>31</sup> Lascelles. B et al., 'Migratory marine species: Their status, threats and conservation management needs' Op Cit

<sup>32</sup> Walsh. A., 'What are migratory species and why are they threatened?' Op Cit

In light of the foregoing threats, it is imperative to strengthen current frameworks towards sound conservation of migratory species for environmental justice and posterity.

### **3.0 Strengthening Current Frameworks for Effective Conservation on Migratory Species**

It is imperative to strengthen the conservation of migratory species. Threats such as climate change, habitat fragmentation, pollution, hunting and interference with migratory routes are contributing to the loss and decline of migratory species with negative impacts for people and planet. Consequently, it has been pointed out that there is need for concrete policy actions in order to ensure that migratory species continue to thrive for people and planet<sup>33</sup>. In particular, since migratory species pass through national jurisdictions, international and regional cooperation is vital for effective conservation strategies<sup>34</sup>.

At the global level, the *Convention on the Conservation of Migratory Species of Wild Animals*<sup>35</sup> is an international agreement that aims to protect and conserve migratory species throughout their ranges. The Convention recognises that states are and must be the principal protectors of the migratory species of wild animals that live within or pass through their national jurisdictional boundaries<sup>36</sup>. Further, given their unique nature, the Convention also acknowledges that the conservation and effective management of migratory species of wild animals require the concerted action of all states<sup>37</sup>. It requires all parties to take urgent action to avoid any migratory species becoming endangered including through promoting, cooperating in and supporting research relating to migratory species, and providing immediate protection for migratory species in their

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<sup>33</sup> United Nations Environment Programme., 'Landmark UN report: The world's migratory species of animals are in decline, and the global extinction risk is increasing' Op Cit

<sup>34</sup> International Institute for Sustainable Development., 'Convention on the Conservation of Migratory Species of Wild Animals - CMS' Op Cit

<sup>35</sup> Convention on the Conservation of Migratory Species of Wild Animals., Op Cit

<sup>36</sup> Ibid

<sup>37</sup> Ibid

jurisdictions<sup>38</sup>. Implementing this Convention is vital in ensuring sound conservation of migratory species all over the world.

At a regional level, the *Agreement on the Conservation of African-Eurasian Migratory Waterbirds*<sup>39</sup> is a regional treaty that aims to conserve migratory bird species that rely on wetlands across Africa, Europe and Asia. The Agreement requires parties to take coordinated measures to maintain migratory waterbird species in a favourable conservation status or to restore them to such a status<sup>40</sup>. In particular, the Agreement urges parties to identify sites and habitats for migratory waterbirds occurring within their territory and encourage the protection, management, rehabilitation and restoration of these sites<sup>41</sup>.

Conservation of migratory species is therefore a key agenda both globally and at regional levels. In light of mounting threats to migratory species, there is need to strengthen current frameworks for environmental justice and posterity. In particular, states have a primary duty to conserve and protect migratory species that live or pass through their jurisdictions. States should therefore strengthen efforts to conserve migratory species including through protecting and restoring their habitats in order to support breeding and feeding<sup>42</sup>. It is also necessary for states to preserve vital migration routes by removing physical barriers that hinder the free movement of migratory species<sup>43</sup>. Tackling threats

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<sup>38</sup> Ibid, article II

<sup>39</sup> Agreement on the Conservation of African-Eurasian Migratory Waterbirds., Available at [https://www.unep-aewa.org/sites/default/files/instrument/aewa\\_agreement\\_text\\_2023-2025\\_mop8.pdf](https://www.unep-aewa.org/sites/default/files/instrument/aewa_agreement_text_2023-2025_mop8.pdf) (Accessed on 28/02/2026)

<sup>40</sup> Ibid

<sup>41</sup> Ibid

<sup>42</sup> Ibid

<sup>43</sup> United Nations Environment Programme World Conservation Monitoring Centre., '5 Surprising Obstacles to Migratory Animals' Journeys' Available at <https://www.unep-wcmc.org/en/5-surprising-obstacles-to-migratory-animals-journeys> (Accessed on 28/02/2026)

such as overfishing, illegal hunting and habitat destruction is also key towards conserving migratory species within states<sup>44</sup>.

Further, given their special nature, international and regional cooperation is necessary for sound conservation of migratory species. In particular, it has been observed that cooperation among states is key in identifying migratory species at risk of extinction in order to put in place effective conservation strategies<sup>45</sup>. Further, international cooperation can play an important role in addressing trade in endangered migratory species<sup>46</sup>. It is also necessary for all states to cooperate and scale up efforts towards tackling climate change and marine pollution which are key threats to migratory species<sup>47</sup>.

Through the foregoing, it is possible to effectively protect and conserve migratory species for people and planet.

#### **4.0 Conclusion**

Conserving migratory species is a fundamental agenda all over the world given their importance for people and planet. It is therefore necessary for states to strengthen efforts to conserve these vital species by protecting and restoring habitats and ecosystems, preserving migration routes by removing physical barriers, and tackling threats at national levels including illegal hunting, overfishing and habitat destruction<sup>48</sup>. Further, given their movement across jurisdictions, it is necessary to foster international and regional cooperation in order to effectively conserve migratory species. It is therefore necessary for all states to work together to address illegal trade in migratory species, confront climate change and tackle marine pollution for sound conservation of migratory

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<sup>44</sup> Ibid

<sup>45</sup> United Nations Environment Programme., 'Landmark UN report: The world's migratory species of animals are in decline, and the global extinction risk is increasing' Op Cit

<sup>46</sup> Ibid

<sup>47</sup> Ibid

<sup>48</sup> United Nations Environment Programme World Conservation Monitoring Centre., '5 Surprising Obstacles to Migratory Animals' Journeys' Op Cit

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species<sup>49</sup>. Conservation of migratory species is a noble cause in the pursuit of environmental justice and posterity. There is need to actualise this dream for people and planet.

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<sup>49</sup> United Nations Environment Programme., 'Landmark UN report: The world's migratory species of animals are in decline, and the global extinction risk is increasing' Op Cit

## References

Agreement on the Conservation of African-Eurasian Migratory Waterbirds., Available at [https://www.unep-aewa.org/sites/default/files/instrument/aewa\\_agreement\\_text\\_2023-2025\\_mop8.pdf](https://www.unep-aewa.org/sites/default/files/instrument/aewa_agreement_text_2023-2025_mop8.pdf)

Convention on Biological Diversity, 5 June 1992 (1760 U.N.T.S. 69)

Convention on Biological Diversity., 'Decision Adopted by the Conference of the Parties to the Convention on Biological Diversity: 15/4. Kunming-Montreal Global Biodiversity Framework' Available at <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>

Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, 1651 U.N.T.S. 333.,

International Institute for Sustainable Development., 'Convention on the Conservation of Migratory Species of Wild Animals - CMS' Available at <https://enb.iisd.org/negotiations/convention-conservation-migratory-species-wild-animals-cms#:~:text=Negotiations-Convention%20on%20the%20Conservation%20of%20Migratory%20Species%20of%20Wild%20Animals,unique%20feature%20of%20the%20CMS>

Lascelles. B et al., 'Migratory marine species: Their status, threats and conservation management needs' *Aquatic Conservation Marine and Freshwater Ecosystems.*, 24(S2):111-127, 2014

Major UN report on climate change and migratory species published., Available at <https://jncc.gov.uk/news/climate-change-and-migratory-species-review/#:~:text=Migratory%20species%20provide%20many%20benefits,Sunday%2C%20December%2010%2C%202023>

Migratory Species., Available at <https://www.encyclopedia.com/environment/energy-government-and-defense-magazines/migratory-species>

Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals., 'Migratory Species and Climate Change' Available at <https://www.cms.int/publication/migratory-species-and-climate-change>

Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals., 'Migratory Species and Climate Change: Impacts of a Changing Environment on Wild Animals' Available at [https://www.cms.int/sites/default/files/publication/cms\\_pub\\_pop-series\\_migratory\\_species%26climate\\_change\\_e.pdf](https://www.cms.int/sites/default/files/publication/cms_pub_pop-series_migratory_species%26climate_change_e.pdf)

*Conservation of Migratory Species: Strengthening Current Frameworks for Environmental Justice and Posterity*

The Migratory Birds of Tsavo., Available at <https://tsavotrust.org/the-migratory-birds-of-tsavo/>

United Nations Development Programme., 'Biodiversity and the 2030 Agenda for Sustainable Development' Available at [https://www.undp.org/sites/g/files/zskgke326/files/publications/Biodiversity\\_2030\\_Agenda\\_PolicyBrief.pdf](https://www.undp.org/sites/g/files/zskgke326/files/publications/Biodiversity_2030_Agenda_PolicyBrief.pdf)

United Nations Environment Programme World Conservation Monitoring Centre., '5 Surprising Obstacles to Migratory Animals' Journeys' Available at <https://www.unep-wcmc.org/en/5-surprising-obstacles-to-migratory-animals-journeys>

United Nations Environment Programme., 'Biodiversity: our solutions are in nature' Available at <https://www.unep.org/news-and-stories/story/biodiversity-our-solutions-are-nature>

United Nations Environment Programme., 'Five drivers of the nature crisis' Available at <https://www.unep.org/news-and-stories/story/five-drivers-nature-crisis>

United Nations Environment Programme., 'Landmark UN report: The world's migratory species of animals are in decline, and the global extinction risk is increasing' Available at <https://www.unep.org/news-and-stories/press-release/landmark-un-report-worlds-migratory-species-animals-are-decline-and#:~:text=Billions%20of%20animals%20make%20migratory,and%20helping%20to%20store%20carbon>

United Nations Environment Programme., 'UNEP and Biodiversity' Available at <https://www.unep.org/unep-and-biodiversity>

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>

United Nations., 'Protecting migratory species in a rapidly changing world' Available at <https://news.un.org/en/story/2020/02/1057511>

Walsh. A., 'What are migratory species and why are they threatened?' Available at <https://www.dw.com/en/migratory-species-extinction-climate-anthropocene/a-68206110>

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