# COP 27 and Biodiversity: Towards an Integrated Approach to Climate Change Mitigation and Biodiversity Conservation

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## Abstract

*Climate change mitigation measures and biodiversity conservation have often been treated as separate. However, COP 27 for the first time, comprehensively created a platform for deliberations on tackling both as a step towards achieving sustainable development. This paper highlights the outcomes of COP 27 which took place in November 2022 in Egypt, dubbed "African COP". Notably, the main focus of this paper as far as COP 27 is concerned was the encouragement of adoption of nature-based solutions to climate change and biodiversity loss. The author argues that there is a need for climate change mitigation efforts and biodiversity protection and conservation measures to consider the nature-based approaches and also create an opportunity for collaborative approaches in these between communities and government agencies.*

## 1. Introduction

The need for the UN Framework Convention on Climate Change (UNFCCC)[1] was informed by, *inter alia:* the understanding that, given the global nature of climate change, all nations must cooperate as widely as possible and take part in an effective and appropriate international response, in accordance with their respective capabilities, common but differentiating responsibilities, and social and economic circumstances; affirmation that in order to prevent negative effects on social and economic development, responses to climate change should be coordinated with it in an integrated manner, taking full account of developing countries' legitimate priority needs for the achievement of sustained economic growth and the eradication of poverty; and an understanding that in order for developing nations to advance towards achieving sustainable social and economic development, their energy consumption will need to increase while taking into account the possibilities for achieving greater energy efficiency and for controlling greenhouse gas emissions

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

in general, including through the application of new technologies on terms which are affordable to them.[2]

The ultimate goal of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a threshold should be reached in a time period that will allow ecosystems to adjust to climate change naturally, guarantee that food supply is not jeopardized, and permit sustainable economic growth.[3]

The Convention's top decision-making body is the Conference of the Parties (COP). At the COP, which reviews the implementation of the Convention and any other legal instruments that the COP adopts, all States that are Parties to the Convention are represented. The COP also makes decisions regarding institutional and administrative arrangements that are necessary to support the Convention's effective implementation.[4]

The inaugural COP conference took place in Berlin, Germany, in March 1995. The COP meets annually, unless the Parties decide differently, and unless a Party proposes to host the session, it meets in Bonn, the secretariat's home city.[5] The issues of climate change and biodiversity are closely related. The successful conservation, restoration, and management of biodiversity is essential to achieving the goals of the Paris Climate Agreement.[6]

The 27th Session of the Conference of the Parties of the UNFCCC (COP 27) took place in Sharm el-Sheikh, Egypt, held from November 6th to 20th November, 2022.[7] With regard to a wide variety of climate change-related concerns, the Egyptian COP27 Presidency listed a number of subjects aimed at improving implementation and boosting ambition. Additionally, Egypt set aside a number of days that were specifically themed for in-depth debates, including those that took place during side events, panel discussions, round tables, and other interactive forms for consideration and

[2] Ibid, Preamble.
[3] Ibid, Article 2.
[4] 'Conference of the Parties (COP) | UNFCCC' <https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop> accessed 10 January 2023.
[5] Ibid.
[6] 'Biodiversity Day - COP27' (*UNEP - UN Environment Programme*) <http://www.unep.org/events/conference/biodiversity-day-cop27> accessed 13 February 2023.
[7] 'Sharm El-Sheikh Climate Change Conference - November 2022 | UNFCCC' <https://unfccc.int/cop27> accessed 12 February 2023.

dissemination to a larger audience. These included Finance Day, Agriculture and Adaptation Day, Water Day, Decarbonization Day, Science Day, Solution Day, Gender Day, Energy Day, Biodiversity Day, Youth and Future Generations Day, and ACE and Civil Society Day.[8]

Notably, adoption of nature-based approaches to climate change mitigation and biodiversity conservation took centre on this 'biodiversity day'. The term "nature-based solutions"(NbS) refers to a variety of methods used to solve social issues, such as habitat restoration, water resource management, disaster risk reduction, and green infrastructure. The foundation of nature-based solutions is the idea that when ecosystems are healthy and well-managed, they offer crucial advantages and services to people, such as lowering greenhouse gas emissions, securing safe water supplies, improving the quality of the air we breathe, or boosting food security.[9]

This paper's main focus is on the outcomes of the discussions surrounding biodiversity and what the same portend for the future in enhancing biodiversity conservation and climate change mitigation as a step towards achieving sustainable development.

## 2. Biodiversity Protection and Conservation as a Tool for Achieving Sustainable Development

Environmental, social, and economic factors must all be balanced while pursuing sustainable development in order to protect natural resources (biodiversity, ecosystem services, and ecosystem function).[10]

The promise of providing humans with a means of subsistence in the present and the future while preserving the diversity of biological life contained in the planet's intricately woven natural eco-systems is captured by sustainable development on an idealistic level. The Sustainable Development Goals (SDGs), which were endorsed by the UN General Assembly in 2015, are a "collection of universal goals that tackle the pressing environmental, political, and economic issues facing our planet" (UNDP, 2020a).[11] The foundation for raising global standards of living and

[8] 'COP 27 | Climate-Diplomacy' <https://climate-diplomacy.org/events/cop-27> accessed 12 February 2023.
[9] 'What Are Nature-Based Solutions and How Can They Help Us Address the Climate Crisis?' (*World Wildlife Fund*) <https://www.worldwildlife.org/stories/what-are-nature-based-solutions-and-how-can-they-help-us-address-the-climate-crisis> accessed 14 February 2023.
[10] Abdo, L., Kemp, A., Coupland, G., & Griffin, S., "Biodiversity offsets can be a valuable tool in achieving sustainable development: Developing a holistic model for biodiversity offsets that incorporates environmental, social and economic aspects of sustainable development." *Journal of Sustainable Development* 12, no. 5 (2019), 65.
[11] Clémençon R "Is sustainable development bad for global biodiversity conservation?" *Global Sustainability* 4 (2021), 2.

reducing the dangerous human-caused impacts of climate change is provided by the Sustainable Development Goals. SDG 13: Climate Action urges the incorporation of climate change mitigation strategies into development frameworks. More sustainable methods of exploiting the earth's natural resources are also urged by SDGs 14 and 15 on life below water and on land, respectively.[12]

Biodiversity is defined by the Convention on Biological Diversity as "the variability among living organisms from all sources, including, among others, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems." It is the diversity of life on earth at all scales, from genes to globally dispersed populations of the same species; from groups of species coexisting in a limited environment to global ecosystems.[13] It is crucial to recognise the value of biodiversity in supplying vital ecosystem services and life support systems, such as water yield, water purification, waste breakdown, flood control, storm and coastal protection, sedimentation processes, nutrient cycling, carbon storage, and climatic regulation, as well as the costs of replacing these services.[14]

This thus makes biodiversity conservation a crucial part of the journey towards achieving sustainable development goals.

## 3. COP 27 and Biodiversity: Towards an Integrated Approach in Climate Change Mitigation and Biodiversity Conservation Measures.

As already pointed out, there was a biodiversity day set out during COP 27 on 16th November 2022, whose goal was to advance and institutionalize action towards valuing, conserving, restoring, and sustainably using biodiversity across terrestrial, freshwater, coastal, and marine ecosystems to lessen the effects of climate change and to use nature-based solutions to mitigate

[12] United Nations, 'Sustainability' (*United Nations*) <https://www.un.org/en/academic-impact/sustainability> accessed 14 February 2023.
[13] United Nations, *1992 Convention on Biological Diversity*, 1760 UNTS 79, 31 ILM 818 (1992).
[14] International Association for Impact Assessment, "Biodiversity in Impact Assessment", *Special Publication Series* No. 3, July 2005 < https://www.patagoniaalliance.org/wp-content/uploads/2014/01/BIODIVERSITY-IN-IMPACT-ASSESSMENT.pdf> accessed 14 February 2023.

and adapt to climate change and build resilience for both people and nature.[15] Notably, this was the first COP to dedicate a day to biodiversity.[16]

The goal of the biodiversity day was to draw attention to ecosystem- and nature-based solutions. It would also make it possible to talk about how climate change affects biodiversity and how to organise international efforts to address the problems of halting biodiversity loss and minimising the effects of pollution and climate change.[17] Included in the discussions would be the effects of climate change on the oceans, endangered species, coral reefs, the sustainability of protected areas to provide ecosystem services to people, the effects of plastic waste on aquatic ecosystems and species, and ecosystem-based solutions and their relationship to climate change mitigation and adaptation.[18]

The Egyptian COP27 Presidency, the German Government, and the International Union for Conservation of Nature (IUCN) developed the ENACT (Enhancing Nature-based Solutions for an Accelerated Climate Transformation) initiative in recognition of the need for a more comprehensive global approach to NbS. This initiative's goal is to strengthen collaboration between already-existing NbS efforts and partnerships. Egypt and Germany are the co-chairs of ENACT, a voluntary alliance of state and non-state entities. The ENACT Secretariat, which will oversee the initiative's execution, will be housed at IUCN.[19]

As a beneficial outcome of ENACT, the secretariat will create an annual State of Nature-based Solutions report, which will be given to the COP Presidency prior to future UN Climate Change meetings. The study will offer the most thorough quantitative evaluation of the advancement made by state and non-state entities worldwide in putting NbS promises into practice.[20]

The ENACT initiative aims to: enhance the protection from and resilience to climate impacts of at least 1 billion vulnerable people, including at least 500 million women and girls; secure up to 2.4

[15] 'Biodiversity Day - COP27' (*UNEP - UN Environment Programme*) <http://www.unep.org/events/conference/biodiversity-day-cop27> accessed 13 February 2023.
[16] 'COP27 Dispatch - November 16, 2022 | Newsletter | EESI' <https://www.eesi.org/newsletters/view/cop27-dispatch-november-16-2022> accessed 14 February 2023.
[17] 'COP27 Official-16 Nov, Biodiversity Day' <http://example.com/index.htm> accessed 14 February 2023.
[18] Ibid.
[19] 'Egyptian COP27 Presidency, Germany and IUCN Announce ENACT Initiative for Nature-Based Solutions' (*IUCN*) <https://www.iucn.org/press-release/202211/egyptian-cop27-presidency-germany-and-iucn-announce-enact-initiative-nature> accessed 14 February 2023.
[20] Ibid; 'ENACT Initiative' (*IUCN*) <https://www.iucn.org/our-work/topic/nature-based-solutions-climate/our-work/enact-initiative> accessed 14 February 2023.

billion hectares of healthy natural and sustainable agricultural ecosystems, through protection of 45 million ha, sustainable management of 2 billion ha, and restoration of 350 million ha; and significantly increase global mitigation efforts through protecting, conserving and restoring carbon-rich terrestrial, freshwater and marine ecosystems.[21]

ENACT becomes important when you consider the connection between climate change and biodiversity loss. It has been observed that one of the primary causes of biodiversity loss is climate change, which also changes the ranges in which different species may survive and affects food webs as well as the intensity and frequency of threats like wildfires and droughts. Environmental dangers are made worse by ecosystem loss and degradation, which also diminishes ecosystems' capacity to absorb carbon from the atmosphere.[22]

Consequently, it has been suggested that, when correctly used, Nature-based Solutions (NbS) can increase the resilience of ecosystems and the societies that depend on them. NbS can help communities adapt to climate hazards like sea level rise, more frequent and severe flooding, droughts, heatwaves, and wildfires while also providing significant biodiversity benefits in a way that protects and advances the rights and interests of historically marginalised and vulnerable groups.[23]

It has been noted that the inclusion of the term NbS in the COP27 cover text was crucial because it gave Parties a policy lever to invest in scaling up NbS while also providing Parties with oversight to make sure that NbS adhere to the UNEA-5 definition[24], are not used for greenwashing[25], and are implemented sincerely. NbS must therefore promote biodiversity, protect human rights, be people-led, provide positive social effects locally, and be implemented in addition to, not in place of, significant reductions in greenhouse gas emissions.[26]

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[21] Ibid.

[22] 'COP27 Official' <http://example.com/index.htm> accessed 14 February 2023.

[23] Ibid.

[24] The overall theme for UNEA-5 was "Strengthening Actions for Nature to Achieve the Sustainable Development Goals," highlighting the pivotal role nature plays in our lives and in social, economic and environmental sustainable development. The UNEA-5 provided a platform for Member States to exchange sustainable development best practices. It sought to give nations a foundation to build on and catalyse impact on international environmental initiatives to save and restore the natural environment, which is essential to our economies and society.
See: 'Fifth Session of the United Nations Environment Assembly | Environment Assembly' <https://www.unep.org/environmentassembly/unea5> accessed 14 February 2023.

[25] See de Freitas Netto, S.V., Sobral, M.F.F., Ribeiro, A.R.B. and Soares, G.R.D.L., "Concepts and forms of greenwashing: A systematic review." *Environmental Sciences Europe* 32, no. 1 (2020): 1-12.

[26] 'The Agile Initiative | From Global to Local: Lessons on Scaling up Nature-Based Solutions from COP27' (*The Agile Initiative*) <https://www.agile-initiative.ox.ac.uk/news/from-global-to-local-lessons-on-scaling-up-nature-

The *Sharm el-Sheikh Implementation Plan*[27], in its preamble, underlines the crucial importance of protecting, conserving, restoring, and sustainably using nature and ecosystems for effective and sustainable climate action, as well as the urgent need to address the interconnected global crises of climate change and biodiversity loss in a comprehensive and synergetic manner.[28] In addition, the Plan stresses the significance of safeguarding, conserving, and restoring nature and ecosystems in order to meet the Paris Agreement temperature goal, including through the protection of biodiversity, forests, and other terrestrial and marine ecosystems that act as sinks and reservoirs for greenhouse gases.[29]

The Plan also encourages Parties to take into account ecosystem-based strategies or solutions based on nature, as appropriate, for their mitigation and adaptation actions while providing sufficient social and environmental safeguards, taking into mind United Nations Environment Assembly resolution 5/5.[30]

An important component of the Plan is the loss and damage fund, which many people see as the pinnacle of the United Nations Climate Conference (COP 27) and the result of years of pressure from poor nations that are susceptible to climate change. The fund intends to donate funding to the countries most at risk from and affected by the consequences of climate change.[31] The term "loss and damage" refers to the inescapable negative effects of climate change, such as increased sea levels, protracted heat waves, desertification, acidification of the oceans, and catastrophic occurrences like bushfires, extinction of species, and crop failures.[32] It has been observed that Climate justice has entered a new era with the creation of the Loss and Damage Finance Fund. The cornerstone of a long delayed new fund has been set by governments in order to provide crucial

based-solutions-from-cop27> accessed 14 February 2023; see also 'Nature-Based Solutions Initiative | Nature-Based Solutions Included in COP27 Cover Decision Text' (*Nature-based Solutions Initiative*) <https://www.naturebasedsolutionsinitiative.org/news/nature-based-solutions-included-cop27-cover-decision-text/> accessed 14 February 2023.

[27] UNFCC, *Sharm el-Sheikh Implementation Plan*, Sharm el-Sheikh Climate Change Conference - November 2022 Proceedings, Decision -/CP.27< https://unfccc.int/sites/default/files/resource/cop27_auv_2_cover%20decision.pdf> accessed 14 February 2023.

[28] Ibid, Preamble.

[29] Ibid, Para. 15.

[30] Ibid, para. 48.

[31] Ibid, paras 22-25; see also 'What You Need to Know about the COP27 Loss and Damage Fund' (*UNEP*, 29 November 2022) <http://www.unep.org/news-and-stories/story/what-you-need-know-about-cop27-loss-and-damage-fund> accessed 14 February 2023.

[32] 'What You Need to Know about the COP27 Loss and Damage Fund' (*UNEP*, 29 November 2022) <http://www.unep.org/news-and-stories/story/what-you-need-know-about-cop27-loss-and-damage-fund> accessed 14 February 2023.

assistance to disadvantaged nations and communities who are already suffering the effects of the escalating climate disaster.[33]

It is now hoped that the African continent for example, which contributes the least to climate change yet is the most vulnerable to its impacts, will benefit from this fund immensely and have an opportunity to use their domestic funds on other pressing socio-economic issues affecting their populace.[34] It is hoped that there will be goodwill in making this climate change funding mechanism a reality.

Kenya can take advantage of this fund when it becomes effective, to continue with the projects that were started and managed through the Adaptation Fund Programme in Kenya, implemented through National Environment Management Authority as the National Implementing Entity under Kyoto Protocol, and which proposed to develop and implement integrated adaptive mechanisms to increase community livelihood resilience to climate change as follows: Adoption of drought tolerant crops, and promotion of value chain approaches; Development of water harvesting assets/structures; Promotion of forestry and agro forestry ecosystem-based strategies to enhance food security and resilience to climate change as well as water and soil conservation; Promotion of pastoral ecosystem-based adaptations that will increase resilience through use of pasture conservation and emergency fodder bank, storage and supply of water to improve social life of the people in the district; Rehabilitation of mangrove ecosystem in the coastal area; Disaster risk reduction and preparedness through early warning system and flood control structures; and establishment of a knowledge management system for this programme, development of institution capacity, and raising awareness on Climate Change Adaptation.[35] Such funding can go a long way in not only enhancing climate change mitigation measures but also narrowing the gap between climate change mitigation measures and biodiversity conservation measures as the two should be treated as related even in their implementation.

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[33] Harris T, 'Africa: COP27 Loss and Damage Finance Fund a Down Payment On Climate Justice.' *Greenpeace International* (Amsterdam, 22 November 2022) <https://allafrica.com/stories/202211220519.html> accessed 14 February 2023.

[34] 'What You Need to Know about the COP27 Loss and Damage Fund' (*UNEP*, 29 November 2022) <http://www.unep.org/news-and-stories/story/what-you-need-know-about-cop27-loss-and-damage-fund> accessed 14 February 2023; Zenda C, 'What Will the Loss and Damage Fund Mean for Africa's Most Vulnerable?' (*FairPlanet*) <https://www.fairplanet.org/story/cop27-loss-and-damage-fund-for-africa/> accessed 14 February 2023.

[35] 'National Environment Management Authority (NEMA) - Kenya Adaptation Fund Program' <https://www.nema.go.ke/index.php?option=com_content&view=article&id=262&Itemid=385> accessed 14 February 2023.

The outcome of COP 27 may thus be considered to be a step in the right direction towards adoption of an integrated approach in climate change mitigation and biodiversity conservation measures. Including all stakeholders, including communities, women, youth and children, among others, in these measures is important not only because of the direct impact of climate change and biodiversity loss on their lives but also the fact that their daily activities have a direct impact on efforts towards reversing both. Especially with climate change issues and biodiversity-related decision-making processes, inclusive governance is necessary. The term "inclusive governance" refers to the process of allowing a broad spectrum of rights holders, knowledge holders, and stakeholders to participate in decision-making in order to capture differing values, strengthen capacity, and advance accountability, legitimacy, and just results.[36]

This indeed rhymes well with the adoption of nature-based or ecosystem based approaches towards addressing climate change. Ecosystem-based adaptation frequently produces win-win results that safeguard vulnerable communities from extreme weather while also delivering a range of ecological advantages that are essential for human well-being, such clean water and food.[37] Ecosystem-based adaptation, which is basically a strategy for coping with change, can decrease greenhouse gas emissions caused by habitat loss and ecosystem degradation, which in turn helps to mitigate the effects of climate change.[38]

## 4. Conclusion

In order to solve some of our society's most important problems, such as threats to water security, an increase in the likelihood of catastrophes, or climate change, a range of measures or policies known as "nature-based solutions" are used. These solutions entail conserving biodiversity, managing ecosystems sustainably, and protecting and restoring ecosystems in ways that strengthen their resilience and capacity to solve those social concerns.[39]

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[36] Visseren-Hamakers, I.J., Razzaque, J., McElwee, P., Turnhout, E., Kelemen, E., Rusch, G.M., Fernandez-Llamazares, A., Chan, I., Lim, M., Islar, M. and Gautam, A.P., 'Transformative Governance of Biodiversity: Insights for Sustainable Development' (2021) 53 *Current Opinion in Environmental Sustainability* 20 <https://www.sciencedirect.com/science/article/pii/S1877343521000749> accessed 14 February 2023.

[37] Environment UN, 'Ecosystem-Based Adaptation' (*UNEP - UN Environment Programme*, 4 June 2021) <http://www.unep.org/explore-topics/climate-action/what-we-do/climate-adaptation/ecosystem-based-adaptation> accessed 14 February 2023.

[38] Ibid.

[39] 'What Are Nature-Based Solutions and How Can They Help Us Address the Climate Crisis?' (*World Wildlife Fund*) <https://www.worldwildlife.org/stories/what-are-nature-based-solutions-and-how-can-they-help-us-address-the-climate-crisis> accessed 14 February 2023.

There is a need for accelerated adoption of nature-based approaches to climate change mitigation and biodiversity conservation as a step towards achieving socio-economic rights of communities and other related rights as envisaged under sustainable development goals. The proposed funding mechanisms under COP 27 should also be well utilised, once implemented, as a way of building resilient communities and ecosystems. This will go a long way in boosting efforts towards achievement of Sustainable Development Goals.

## References

'Biodiversity Day - COP27' (*UNEP - UN Environment Programme*) <http://www.unep.org/events/conference/biodiversity-day-cop27> accessed 13 February 2023.

'Conference of the Parties (COP) | UNFCCC' <https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop> accessed 10 January 2023.

'COP 27 | Climate-Diplomacy' <https://climate-diplomacy.org/events/cop-27> accessed 12 February 2023.

'COP27 Dispatch - November 16, 2022 | Newsletter | EESI' <https://www.eesi.org/newsletters/view/cop27-dispatch-november-16-2022> accessed 14 February 2023.

'COP27 Official' <http://example.com/index.htm> accessed 14 February 2023.

'COP27 Official-16 Nov, Biodiversity Day' <http://example.com/index.htm> accessed 14 February 2023.

'Egyptian COP27 Presidency, Germany and IUCN Announce ENACT Initiative for Nature-Based Solutions' (*IUCN*) <https://www.iucn.org/press-release/202211/egyptian-cop27-presidency-germany-and-iucn-announce-enact-initiative-nature> accessed 14 February 2023.

'ENACT Initiative' (*IUCN*) <https://www.iucn.org/our-work/topic/nature-based-solutions-climate/our-work/enact-initiative> accessed 14 February 2023.

'Fifth Session of the United Nations Environment Assembly | Environment Assembly' <https://www.unep.org/environmentassembly/unea5> accessed 14 February 2023.

'National Environment Management Authority (NEMA) - Kenya Adaptation Fund Program' <https://www.nema.go.ke/index.php?option=com_content&view=article&id=262&Itemid=385> accessed 14 February 2023.

'Nature-Based Solutions Initiative | Nature-Based Solutions Included in COP27 Cover Decision Text' (*Nature-based Solutions Initiative*)

<https://www.naturebasedsolutionsinitiative.org/news/nature-based-solutions-included-cop27-cover-decision-text/> accessed 14 February 2023.

'Sharm El-Sheikh Climate Change Conference - November 2022 | UNFCCC' <https://unfccc.int/cop27> accessed 12 February 2023.

'The Agile Initiative | From Global to Local: Lessons on Scaling up Nature-Based Solutions from COP27' (*The Agile Initiative*) <https://www.agile-initiative.ox.ac.uk/news/from-global-to-local-lessons-on-scaling-up-nature-based-solutions-from-cop27> accessed 14 February 2023.

'What Are Nature-Based Solutions and How Can They Help Us Address the Climate Crisis?' (*World Wildlife Fund*) <https://www.worldwildlife.org/stories/what-are-nature-based-solutions-and-how-can-they-help-us-address-the-climate-crisis> accessed 14 February 2023.

'What You Need to Know about the COP27 Loss and Damage Fund' (*UNEP*, 29 November 2022) <http://www.unep.org/news-and-stories/story/what-you-need-know-about-cop27-loss-and-damage-fund> accessed 14 February 2023.

Abdo, L., Kemp, A., Coupland, G., & Griffin, S., "Biodiversity offsets can be a valuable tool in achieving sustainable development: Developing a holistic model for biodiversity offsets that incorporates environmental, social and economic aspects of sustainable development." *Journal of Sustainable Development* 12, no. 5 (2019), 65.

Clémençon R "Is sustainable development bad for global biodiversity conservation?" *Global Sustainability* 4 (2021).

de Freitas Netto, S.V., Sobral, M.F.F., Ribeiro, A.R.B. and Soares, G.R.D.L., "Concepts and forms of greenwashing: A systematic review." *Environmental Sciences Europe* 32, no. 1 (2020): 1-12.

Environment UN, 'Ecosystem-Based Adaptation' (*UNEP - UN Environment Programme*, 4 June 2021) <http://www.unep.org/explore-topics/climate-action/what-we-do/climate-adaptation/ecosystem-based-adaptation> accessed 14 February 2023.

Harris T, 'Africa: COP27 Loss and Damage Finance Fund a Down Payment On Climate Justice.' *Greenpeace International* (Amsterdam, 22 November 2022) <https://allafrica.com/stories/202211220519.html> accessed 14 February 2023.

International Association for Impact Assessment, "Biodiversity in Impact Assessment", *Special Publication Series* No. 3, July 2005 < https://www.patagoniaalliance.org/wp-content/uploads/2014/01/BIODIVERSITY-IN-IMPACT-ASSESSMENT.pdf> accessed 14 February 2023.

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

UNFCC, *Sharm el-Sheikh Implementation Plan*, Sharm el-Sheikh Climate Change Conference - November 2022 Proceedings, Decision -/CP.27<

https://unfccc.int/sites/default/files/resource/cop27_auv_2_cover%20decision.pdf> accessed 14 February 2023.

United Nations, 'Sustainability' (*United Nations*) <https://www.un.org/en/academic-impact/sustainability> accessed 14 February 2023.

United Nations, *1992 Convention on Biological Diversity*, 1760 UNTS 79, 31 ILM 818 (1992).

Visseren-Hamakers, I.J., Razzaque, J., McElwee, P., Turnhout, E., Kelemen, E., Rusch, G.M., Fernandez-Llamazares, A., Chan, I., Lim, M., Islar, M. and Gautam, A.P., 'Transformative Governance of Biodiversity: Insights for Sustainable Development' (2021) 53 *Current Opinion in Environmental Sustainability* 20 <https://www.sciencedirect.com/science/article/pii/S1877343521000749> accessed 14 February 2023.

Zenda C, 'What Will the Loss and Damage Fund Mean for Africa's Most Vulnerable?' (*FairPlanet*) <https://www.fairplanet.org/story/cop27-loss-and-damage-fund-for-africa/> accessed 14 February 2023.