

<b>FORMAT</b>		
1. Name of resource	<b>Country-level factors in a failing relationship with nature: Nature connectedness as a key metric for a sustainable future</b>	
2. Location	<a href="https://doi.org/10.1007/s13280-022-01744-w">https://doi.org/10.1007/s13280-022-01744-w</a>	
3. Alternative location		
4. Author[s]	Richardson, M., I. Hamlin, L. R. Elliott, M. P. White	
5. Publisher/producer/host	Ambio	
6. Year	2022	
7. Suggested citation	Richardson, M., I. Hamlin, Elliott, L. R. and M. P. White (2022). Country-level factors in a failing relationship with nature: Nature connectedness as a key metric for a sustainable future. Ambio, available at	
8. Languages in which available	English	
9. Geographic area resource relates to	Global	
10. Does the resource relate to a specific time frame?		
11. Type	Report	Yes
	Toolkit/Framework/Roadmap	
	Sign-post to other resource (database)	
	Case studies	
	Other	
12. If this is part of an initiative, what is the initiative?		
<b>COLLECTIONS AND COLLECTIONS-BASED INSTITUTIONS</b>		
13. Explicit links to collections	No	
14. Explicit links to museums/libraries/archives	No	
15. Types of institutions the resource covers	Museums	X
	Archives	X
	Libraries	X
	Other	X
16. Types of collections/disciplines the resource covers	Arts, humanities and social sciences: philosophy, psychology, religion, social sciences, law, politics, language, arts and recreation, architecture,	X

	literature, history, geography and ethnology, anthropology, archaeology	
	Science, natural history, technology, medicine, engineering, manufacturing	X
17. If no explicit links to collections, justification for inclusion	The resource can be used by collections-based institutions to inform educational and management activities.	
<b>HOW IT CONTRIBUTES TO SUSTAINABLE DEVELOPMENT</b>		
<b>18. Collections-related activities the resource relates to (mark all that apply)</b>		
<b>Develop collections to protect and safeguard wider cultural and natural heritage more effectively</b> , for example by targeting collecting to threatened forms of heritage in strategic ways		X
<b>Use collections to promote learning and educational opportunities that contribute to sustainable development more effectively</b> , for example education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development and/or skills development relating to collections		X
<b>Use collections to promote cultural participation/social inclusion more effectively</b> , for example by reducing barriers to participation, to ensure no-one is 'left behind'		
<b>Use collections to promote sustainable tourism more effectively</b> , for example by developing new products based on local cultural heritage, and/or considering the rights of stakeholder groups in relation to collections		
<b>Use collections to support research that contributes to sustainable development</b> (including all forms of personal and self-directed research at all levels that make use of stored collections) more effectively, for example by providing effective facilities, collections and information to meet researchers' needs		
Make decisions around collections that contribute to sustainable development more effectively		
i. employment (recruiting, staff training, staff safety)		
ii. energy consumption, greenhouse gas emissions, reduction, monitoring and reporting		
iii. waste management and reduction of waste		
iv. transport (forms of transport, energy use)		
v. commercial activities including copyright and IP		
vi. governance and management		X
vii. security, disaster preparedness and risk reduction		

<b>Direct external leadership, partnerships and collaborations towards sustainable development more effectively</b> , for example by developing impactful partnerships	X
<b>19. Does the resource relate clearly to any international conventions (mark all that apply)?</b>	
Culture conventions:	
1952, 71 Protection of Copyright and Neighbouring Rights	
1954 Protection of Cultural Property in the Event of Armed Conflict	
1970 Fighting Against the Illicit Trafficking of Cultural Property	
1972 Protection of the World Cultural and Natural Heritage	X
2001 Protection of the Underwater Cultural Heritage	
2003 Safeguarding of the Intangible Cultural Heritage	
2005 Protection and Promotion of the Diversity of Cultural Expressions	
Rio Conventions:	
Convention on Biological Diversity (CBD), Convention to Combat Desertification (UNCCD), Framework Convention on Climate Change (UNFCCC)	X
<b>AIMS AND CONTENT</b>	
<b>20. What issues does the resource aim to address?</b>	<p><b>“Climate change and biodiversity loss show that the human–nature relationship is failing. That relationship can be measured through the construct of nature connectedness which is a key factor in pro-environmental behaviours and mental well-being. Country-level indicators of extinction of nature experience, consumption and commerce, use and control of nature and negativistic factors were selected. An exploratory analysis of the relationship between these metrics and nature connectedness across adult samples from 14 European countries was conducted (n = 14,745 respondents). The analysis provides insight into how affluence, technology and consumption are associated with the human–nature relationship. These findings motivate a comparison of how nature connectedness and composite indicators of prosperity, progress, development, and sustainability relate to indicators of human and nature’s well-being. In comparison to composite indexes, it is proposed that nature connectedness is a critical indicator of human and nature’s well-being needed to inform the transition to a sustainable future.” (Abstract)</b></p>
21. Intended audience of resource	[Practitioners and researchers working to conserve biodiversity]
22. Process of development	
23. Organisation/structure/contents	INTRODUCTION Extinction of nature experience

	Consumption and commerce Utility and dominion Nature connectedness as an index Negativistic MATERIALS AND METHODS RESULTS Single country-level metrics Composite indices DISCUSSION
<b>FRAMEWORKS</b>	
24. Framework structure	
25. Relevant policy considerations	Yes
26. Resources for implementation identified	Yes
27. Specific assessment points/indicators/milestones/action plan for monitoring	Yes
<b>28. ASPECTS OF SUSTAINABILITY COVERED BY RESOURCE (mark all that apply)</b>	
People (social sustainability)	X
Planet (environmental sustainability)	X
Prosperity (economic sustainability)	X
Peace	
Partnerships	
<b>29. CROSS-CUTTING CONSIDERATIONS COVERED BY RESOURCE (mark all that apply)</b>	
Gender perspectives	
North and South perspectives	
<b>HOW THE RESOURCE CONTRIBUTES TO AGENDA 2030 AND THE SDGs</b>	
<b>HOW AGENDA 2030 AND THE SDGs FEATURE IN THE RESOURCE</b>	
30. SDGs and Agenda 2030 specifically mentioned?	Yes
31. SDGs specifically mentioned?	No
32. SDG targets specifically mentioned?	No
33. SDG indicators specifically mentioned?	No

**SDGs AND SDG TARGETS AND LINKAGES**

<p>34. Comments on SDG linkages</p>	<p>The resource can support SDG targets related to conservation of natural heritage, and the incorporation of biodiversity considerations in management information and reporting. These include 11.4 (protection and safeguarding of cultural and natural heritage), 12.6 (adopt sustainable practices and sustainability reporting), 14.2 (conservation of marine and coastal habitats), 15.1 (sustainable use of nature), 15.5 (reversing habitat destruction and extinctions) and 15.9 (incorporating biodiversity values into planning processes), and 17.19 (adopt metrics for sustainable development, that go beyond GDP).</p> <p>The resource also supports SDGs relating to environmental education and awareness, including 4.7 (Education for Sustainable Development), 12.8 (information and awareness for sustainable development and lifestyles in harmony with nature) and 13.3 (education and awareness for climate action).</p>
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**35. SDGs and SDG targets the resource helps advance**

<p><b>SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</b></p> <p>4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development</p>	<p>Numbers of people in each type of programme drawing on collections from different demographic groups.</p> <p>Increases in numbers of people in each type of programme from different demographic groups.</p> <p>Proportion of people involved in such programmes in relation to overall audience size.</p> <p>Evidence that learners have acquired knowledge and skills to promote sustainable development.</p>
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<p><b>SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable</b>  <b>11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage</b></p>	<p><b><i>11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage</i></b></p> <p>Plans, policies and procedures in place for the safe use of collections for a variety of purposes, protecting and safeguarding both collections and those who use them.</p> <p>Plans, policies and procedures in place for the identification, safeguarding and protection of cultural and natural heritage at risk.</p> <p>Collecting programmes in place to protect, safeguard and make use of cultural and natural heritage, addressing the needs of communities and stakeholders, and ensuring that collections can be an effective resource for sustainable development.</p> <p>Number and diversity of educational, awareness-raising, research programmes, and partnerships that aim to strengthen protection of cultural and natural heritage.</p>
<p><b>SDG 12 Ensure sustainable consumption and production patterns</b>  <b>12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle</b></p>	<p>Clear visions, strategies and plans in place for all aspects of sustainability – environmental, social and economic (people, planet, prosperity)- across all areas of activity.</p> <p>Visions, strategies and plans relating to sustainability to be publicly available and incorporated into planning documents.</p> <p>Commitments to be in line with local, regional, national and/or international targets and ambitions.</p> <p>Incorporation of sustainability into reporting for funders and other stakeholders, including the public. Reporting to include commitments and progress towards targets.</p>
<p><b>SDG 12 Ensure sustainable consumption and production patterns</b>  <b>12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development</b></p>	<p><b><i>12.8.1 Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment</i></b></p>

<p>and lifestyles in harmony with nature</p>	<p>Extent to which global citizenship education and education for sustainable development (including climate change education) are mainstreamed in formal, informal and non-formal education programmes and activities drawing on and related to collections.</p>
<p><b>SDG 13. Take urgent action to combat climate change and its impacts</b> 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p>	<p>Plans in place to enhance positive contributions to addressing climate change through use of collections. Plans in place to ensure collections, collections institutions and broader society can adapt effectively to climate change.</p> <p>Plans in place for effective education and awareness raising on climate change mitigation, adaptation, impact reduction and early warning.</p> <p>Plans in place to reduce negative contributions of collections-related functions, e.g. measuring greenhouse emissions with plans and targets in place to reduce them.</p>
<p><b>SDG 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development</b> 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans</p>	<p>Proportion of marine and coastal areas in a good ecological condition</p> <p>Numbers of educational and awareness-raising programmes, research activities, and partnerships drawing on collections aiming to support protection of marine and coastal areas.</p>
<p><b>SDG 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</b> 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and</p>	<p>Proportion of terrestrial and inland freshwater systems in a good ecological condition.</p> <p>Information on, programmes relating to, collections development, and partnerships relating to terrestrial and freshwater systems drawing on collections in place, to support their protection and effective functioning.</p>

<p>their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements</p>	
<p><b>SDG 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</b>  15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species</p>	<p>Number and proportion of habitats, notably endangered habitats, and species with favourable conservation status, with special reference to locally, nationally and globally endangered species.</p> <p>Information on, programmes relating to, collections development, and partnerships relating to habitats and species drawing on collections in place, to support their protection and continued existence.</p> <p>Measures taken to enhance biodiversity value of green space associated with collections institutions.</p>
<p><b>SDG 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</b>  15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts</p>	<p>Proportion and number of relevant plans, processes and strategies that incorporate ecosystem and biodiversity values, and their relationships with effective collections.</p> <p>Plans in place to ensure that development of collections facilities contributes to effective conservation and restoration of terrestrial ecosystems.</p>
<p><b>SDG 17. Partnerships for the goals</b>  17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support</p>	<p>Identification and implementation of measures for sustainable development incorporating social and environmental considerations.</p> <p>Identification and implementation of both quantitative and qualitative measures of sustainable development.</p>



statistical capacity-building in developing countries					
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7	8	9	10	11	12
13	14	15	16	17	