

UN Biodiversity Lab - Data List

For any questions please contact support@unbiodiversitylab.org.

Table 1: UN Biodiversity Lab Data List

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
ALOS Global Digital Surface Model	Land Use & Land Cover	Raster	Yes	No	Japan Aerospace Exploration Agency (2021). ALOS World 3D 30 meter DEM. V3.2, Jan 2021. Distributed by OpenTopography. https://doi.org/10.5069/G94M92HB . Accessed: 2022-09-06
Aboveground Biomass Carbon Density 2010	Climate and Carbon	Raster	Yes	No	Spawn, S.A., and H.K. Gibbs. 2020. Global Aboveground and Belowground Biomass Carbon Density Maps for the Year 2010. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/1763
Accessibility to Healthcare	Society	Raster	Yes	No	D.J. Weiss, A. Nelson, C.A. Vargas-Ruiz, K. Gligorić, S. Bavadekar, E. Gabrilovich, A. Bertozzi-Villa, J. Rozier, H.S. Gibson, T. Shekel, C. Kamath, A. Lieber, K. Schulman, Y. Shao, V. Qarkaxhija, A.K. Nandi, S.H. Keddie, S. Rumisha, E. Cameron, K.E. Battle, S. Bhatt, P.W. Gething. Global maps of travel time to healthcare facilities. <i>Nature Medicine</i> (2020).
Allen Coral Atlas	Biodiversity	Raster	No	No	Allen Coral Atlas. 2020. Imagery, maps and monitoring of the worlds tropical coral reefs. <i>Zendodo</i> . DOI: doi.org/10.5281/zenodo.3833242 Lyons, M.B., Roelfsema, C.M., Kennedy, E.V., Kovacs, E.M., Borrego-Acevedo, R., Markey, K., Roe, M., Yuwono, D.M., Harris, D.L., Phinn, S.R., Asner, G.P., Li, J., Knapp, D.E., Fabina, N.S., Larsen, K., Traganos, D., Murray, N.J., 2020. Mapping the world's coral reefs using a global multiscale earth observation framework. <i>Remote Sensing in Ecology and Conservation</i> 6, 557–568. https://doi.org/10.1002/rse2.157

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Aqueduct Global Database Current - Baseline Water Stress	Ecosystem Services, Water	Vector	No	No	Gassert, F., M. Landis, M. Luck, P. Reig, and T. Shiao. 2014. Aqueduct Global Maps 2.1. Working Paper. Washington, DC: World Resources Institute. Available online at http://www.wri.org/publication/aqueduct-metadata-global .
Belowground Biomass Carbon Density 2010	Climate and Carbon	Raster	Yes	No	Spawn, S.A., and H.K. Gibbs. 2020. Global Aboveground and Belowground Biomass Carbon Density Maps for the Year 2010. ORNL DAAC, Oak Ridge, Tennessee, USA. https://doi.org/10.3334/ORNLDAAC/1763
Biodiversity Intactness Index	Biodiversity	Raster	Yes	No	Newbold, T., Hudson, L.N., Arnell, A.P., Contu, S., Palma, A.D., Ferrier, S., Hill, S.L.L., Hoskins, A.J., Lysenko, I., Phillips, H.R.P., Burton, V.J., Chang, C.W.T., Emerson, S., Gao, D., Pask-Hale, G., Hutton, J., Jung, M., Sanchez-Ortiz, K., Simmons, B.I., Whitmee, S., Zhang, H., Purvis, J.P.W.S.& A., 2016. Global map of the Biodiversity Intactness Index, from Newbold et al. (2016) Science. https://doi.org/10.5519/0009936
Change in Aboveground Woody Carbon Density 2003-2014	Climate and Carbon	Raster	No - need to confirm if re-projection restricts sharing	No	Baccini, A., Walker, W., Carvalho, L., Farina, M., Sulla-Menashe, D., Houghton, R.A., 2017. Tropical forests are a net carbon source based on aboveground measurements of gain and loss. Science 358, 230–234. https://doi.org/10.1126/science.aam5962
Contiguous Zone (24 NM)	Boundaries	Vector	Yes	No	Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200 NM), version 11.

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Coral Reef Connectivity	Biodiversity, Ecosystem Services, Water	Vector	Yes	No	Beyer, H.L., Kennedy, E.V., Wood, S., Puotinen, M., Skirving, W., Hoegh-Guldberg, O. 2019. 50 Reefs Global Coral Ocean Warming, Connectivity and Cyclone Dataset. The University of Queensland. Data Collection. https://doi.org/10.14264/uql.2019.782 . Accessed through UN Biodiversity Lab (date) and Resource Watch. www.resourcewatch.org . Wood, S., Paris, C.B., Ridgwell, A., Hendy, E.J., 2014. Modelling dispersal and connectivity of broadcast spawning corals at the global scale. <i>Global Ecology and Biogeography</i> 23, 1–11. https://doi.org/10.1111/geb.12101
Coral Reef Shoreline Protection Value	Biodiversity, Ecosystem Services, Water	Vector	NA	No	Beck MW, Losada IJ, Menéndez P, Reguero BG, Díaz-Simal P, Fernández F. 2018. The global flood protection savings provided by coral reefs. <i>Nature Communications</i> 9:2186. Nature Publishing Group. Burke L, Spalding M. 2022. Shoreline protection by the world's coral reefs: Mapping the benefits to people, assets, and infrastructure. <i>Marine Policy</i> 146:105311.
Crop Suitability 2011-2100	Agriculture, Climate and Carbon	Raster	Yes	No	Zabel, F., Putzenlechner, B., Mauser, W., 2014. Global Agricultural Land Resources – A High Resolution Suitability Evaluation and Its Perspectives until 2100 under Climate Change Conditions. <i>PLOS ONE</i> 9, e107522. https://doi.org/10.1371/journal.pone.0107522
Crop Suitability Change 1981-2100	Agriculture, Climate and Carbon	Raster	Yes	No	Zabel, F., Putzenlechner, B., Mauser, W., 2014. Global Agricultural Land Resources – A High Resolution Suitability Evaluation and Its Perspectives until 2100 under Climate Change Conditions. <i>PLOS ONE</i> 9, e107522. https://doi.org/10.1371/journal.pone.0107522

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Cumulative Ocean Impact - 2013	Water, Human Impact	Raster	Yes	No	Halpern, B.S., Frazier, M., Potapenko, J., Casey, K.S., Koenig, K., Longo, C., Lowndes, J.S., Rockwood, R.C., Selig, E.R., Selkoe, K.A., Walbridge, S., 2015. Spatial and temporal changes in cumulative human impacts on the world's ocean. <i>Nature Communications</i> 6, 7615. https://doi.org/10.1038/ncomms8615
DMSP-OLS/VIIRS harmonized global nighttime light dataset 1992 to 2018	Human Impact, Built Environment	Raster	Yes	No	Li, X., Zhou, Y., Zhao, M., Zhao, X., 2020. A harmonized global nighttime light dataset 1992–2018. <i>Scientific Data</i> 7, 168. https://doi.org/10.1038/s41597-020-0510-y
ESA CCI Land Cover 1992-2020	Land Use & Land Cover	Raster	No	No	Defourny, P., Lamarche, C., Bontemps, S., De Maet, T., Van Bogaert, E., Moreau, I., Brockmann, C., Boettcher, M., Kirches, G., Wevers, J., Santoro, M., Ramoino, F., & Arino, O. (2017). Land Cover Climate Change Initiative - Product User Guide v2. Issue 2.0. http://maps.elie.ucl.ac.be/CCI/viewer/download/ESACCI-LC-Ph2-PUGv2_2.0.pdf
ESA CGLS Land Cover 2015-2019 (100m)	Land Use & Land Cover	Raster	Yes	No	Buchhorn, M., Lesiv, M., Tsendbazar, N.E., Herold, M., Bertels, L., Smets, B. 2020. Copernicus Global Land Cover Layers—Collection 2. <i>Remote Sensing</i> 2020, 12 Volume 108, 1044. doi:10.3390/rs12061044
Esri 2020 Land Cover 10m (IO)	Land Use & Land Cover	Raster	Yes	No	Karra, Kontgis, et al. “Global land use/land cover with Sentinel-2 and deep learning.” IGARSS 2021-2021 IEEE International Geoscience and Remote Sensing Symposium. IEEE, 2021.
Exclusive Economic Zone (EEZ)	Boundaries	Vector	Yes	No	Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11.
Forest Integrity Project: Forest Canopy Height	Biodiversity	Raster	Yes	No	Hansen, M.C., Potapov, P.V., Goetz, S.J., Turubanova, S., Tyukavina, A., Krylov, A., Kommareddy, A., Egorov, A., 2016. Mapping tree height distributions in Sub-Saharan Africa using Landsat 7 and 8 data. <i>Remote Sensing of Environment, Landsat 8 Science Results</i> 185, 221–232.

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Forest Integrity Project: Forest Connectivity	Biodiversity	Raster	Yes	No	Jantz, P., et al. In Prep. Forest Spatial Morphology Database 1.0. Hansen, M.C., et al. 2013. High-Resolution Global Maps of 21st-Century Forest Cover Change. <i>Science</i> 342, 850–853. DOI: 10.1126/science.1244693. Potapov, P., et al., 2017. The last frontiers of wilderness: Tracking loss of intact forest landscapes from 2000 to 2013. <i>Science Advances</i> 3, e1600821. 10.1126/sciadv.1600821.
Forest Integrity Project: Forest Fragmentation - 2000	Biodiversity	Raster	Yes	No	Jantz, P., et al. In Prep. Forest Spatial Morphology Database 1.0. Hansen, M.C., et al. 2013. High-Resolution Global Maps of 21st-Century Forest Cover Change. <i>Science</i> 342, 850–853. DOI: 10.1126/science.1244693. Potapov, P., et al., 2017. The last frontiers of wilderness: Tracking loss of intact forest landscapes from 2000 to 2013. <i>Science Advances</i> 3, e1600821. 10.1126/sciadv.1600821.
Forest Integrity Project: Forest Fragmentation - 2012	Biodiversity	Raster	Yes	No	Jantz, P., et al. In Prep. Forest Spatial Morphology Database 1.0. Hansen, M.C., et al. 2013. High-Resolution Global Maps of 21st-Century Forest Cover Change. <i>Science</i> 342, 850–853. DOI: 10.1126/science.1244693. Potapov, P., et al., 2017. The last frontiers of wilderness: Tracking loss of intact forest landscapes from 2000 to 2013. <i>Science Advances</i> 3, e1600821. 10.1126/sciadv.1600821.
Forest Integrity Project: Forest Structural Condition Index (SCI)	Biodiversity	Raster	Yes	No	Hansen, A., Barnett, K., Jantz, P., Phillips, L., Goetz, S.J., Hansen, M., Venter, O., Watson, J.E.M., Burns, P., Atkinson, S., Rodríguez-Buritica, S., Ervin, J., Virnig, A., Supples, C., Camargo, R.D., 2019. Global humid tropics forest structural condition and forest structural integrity maps. <i>Sci Data</i> 6, 1–12. https://doi.org/10.1038/s41597-019-0214-3

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Forest Integrity Project: Forest Structural Integrity Index (FSII)	Biodiversity	Raster	Yes	No	Hansen, A., Barnett, K., Jantz, P., Phillips, L., Goetz, S.J., Hansen, M., Venter, O., Watson, J.E.M., Burns, P., Atkinson, S., Rodríguez-Buritica, S., Ervin, J., Virnig, A., Supples, C., Camargo, R.D., 2019. Global humid tropics forest structural condition and forest structural integrity maps. <i>Sci Data</i> 6, 1–12. https://doi.org/10.1038/s41597-019-0214-3
Forest Landscape Integrity Index (FLII)	Biodiversity	Raster	Yes	No	Grantham, H.S., Duncan, A., Evans, T.D. et al. Anthropogenic modification of forests means only 40% of remaining forests have high ecosystem integrity. <i>Nat Commun</i> 11, 5978 (2020). https://doi.org/10.1038/s41467-020-19493-3
GDPI - Biofuels	Sustainable Development, Society	Raster	Yes	No	Oakleaf, J.R., Kennedy, C.M., Baruch-Mordo, S., Gerber, J.S., West, P.C., Johnson, J.A., Kiesecker, J., 2019. Mapping global development potential for renewable energy, fossil fuels, mining and agriculture sectors. <i>Sci Data</i> 6, 101. https://doi.org/10.1038/s41597-019-0084-8
GLOIS - Global Soil Organic Carbon	Climate and Carbon	Raster	Yes	No	FAO GSP and ITPS, 2019. Global Soil Organic Carbon Map (GSOC map)
Global Development Potential Indices (GDPI)	Sustainable Development, Society	Raster	Yes	No	Oakleaf, J.R., Kennedy, C.M., Baruch-Mordo, S., Gerber, J.S., West, P.C., Johnson, J.A., Kiesecker, J., 2019. Mapping global development potential for renewable energy, fossil fuels, mining and agriculture sectors. <i>Sci Data</i> 6, 101. https://doi.org/10.1038/s41597-019-0084-8

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Global Distribution of Cold-Water Corals	Water, Biodiversity	Vector	No	No	Freiwald, A., Rogers, A., Hall-Spencer, J., Guinotte, J.M., Davies, A.J., Yesson, C., Martin, C.S., Weatherdon, L.V. 2017. Global distribution of cold-water corals (version 5.0). Fifth update to the dataset in Freiwald et al. (2004) by UNEP-WCMC, in collaboration with Andre Freiwald and John Guinotte. Cambridge (UK): UN Environment World Conservation Monitoring Centre. URL: http://data.unep-wcmc.org/datasets/3
Global Ecological Coastal Units (ECUs)	Water	Vector	NA	No	Sayre, R., S. Noble, S. Hamann, R. Smith, D. Wright, S. Breyer, K. Butler, K. Van Graafeiland, C. Frye, D. Karagulle, D. Hopkins, D. Stephens, K. Kelly, Z. basher, D. Burton, J. Cress, K. Atkins, D. van Sistine, B. Friesen, B. Allee, T. Allen, P. Aniello, I Asaad, M. Costello, K. Goodin, P. Harris, M. Kavanaugh, H. Lillis, E. Manca, F. Muller-Karger, B. Nyberg, R. Parsons, J. Saarinen, J. Steiner, and A. Reed. 2018. A new 30 meter resolution global shoreline vector and associated global islands database for the development of standardized global ecological coastal units. Journal of Operational Oceanography – A Special Blue Planet Edition. DOI:10.1080/1755876X.2018.1529714.
Global Ecological Marine Units (EMUs) - prototype	Water	Raster	NA	No	To be confirmed. https://livingatlas.arcgis.com/emu/?lat=-79.33473133174152&lng=-69.37363509076536&zoom=6
Global Fishing Watch: Annual Fishing Hours 2016	Human Impact, Society, Water	Raster	NA	No	Kroodsma, D.A., Mayorga, J., Hochberg, T., Miller, N.A., Boerder, K., Ferretti, F., Wilson, A., Bergman, B., White, T.D., Block, B.A., Woods, P., Sullivan, B., Costello, C., Worm, B., 2018. Tracking the global footprint of fisheries. Science 359, 904–908. https://doi.org/10.1126/science.aao5646

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Global Flood Database	Natural Hazards	Raster	Yes	No	Tellman, B., Sullivan, J.A., Kuhn, C., Kettner, A.J., Doyle, C.S., Brakenridge, G.R., Erickson, T.A., Slayback, D.A., 2021. Satellite imaging reveals increased proportion of population exposed to floods. <i>Nature</i> 596, 80–86. https://doi.org/10.1038/s41586-021-03695-w
Global Forest Change	Land Use & Land Cover, Biodiversity	Raster	Yes	No	Hansen, M.C., Potapov, P.V., Moore, R., Hancher, M., Turubanova, S.A., Tyukavina, A., Thau, D., Stehman, S.V., Goetz, S.J., Loveland, T.R., Kommareddy, A., Egorov, A., Chini, L., Justice, C.O., Townshend, J.R.G., 2013. High-Resolution Global Maps of 21st-Century Forest Cover Change. <i>Science</i> 342, 850–853. https://doi.org/10.1126/science.1244693
Global Forest Watch: Forest Biodiversity Importance	Biodiversity	Raster	NA	No	Hill, S.L.L., Arnell, A., Maney, C., Butchart, S.H.M., Hilton-Taylor, C., Ciciarelli, C., Davis, C., Dinerstein, E., Purvis, A., Burgess, N.D., 2019. Measuring Forest Biodiversity Status and Changes Globally. <i>Front. For. Glob. Change</i> 2. https://doi.org/10.3389/ffgc.2019.00070 IUCN, BirdLife International, UNEP-WCMC. 2016. Biodiversity importance. Accessed from Global Forest Watch on 27/11/2020. www.globalforestwatch.org .
Global Forest Watch: Forest Biodiversity Intactness	Biodiversity	Raster	NA	No	Dataset: UNEP-WCMC and Natural History Museum. “Biodiversity Intactness.” Accessed from Global Forest Watch on 27/11/2020. www.globalforestwatch.org Paper: Hill, S. L. et al. (2019). Measuring forest biodiversity status and changes globally. <i>Frontiers in Forests and Global Change</i> , 2, 70.
Global Georeferenced Database of Dams (GOODD) - Catchments	Built Environment	Vector	Yes	No	Mulligan, M., van Soesbergen, A., Sáenz, L., 2020. GOODD, a global dataset of more than 38,000 georeferenced dams. <i>Scientific Data</i> 7, 31. https://doi.org/10.1038/s41597-020-0362-5

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Global Georeferenced Database of Dams (GOODD) - Dams	Built Environment	Vector	Yes	No	Mulligan, M., van Soesbergen, A., Sáenz, L., 2020. GOODD, a global dataset of more than 38,000 georeferenced dams. <i>Scientific Data</i> 7, 31. https://doi.org/10.1038/s41597-020-0362-5
Global Grid of Probabilities of Urban Expansion to 2030	Land Use & Land Cover, Built Environment, Human Impact	Raster	Yes	No	Seto, K.C., Güneralp, B., Hutyrá, L.R., 2012. Global forecasts of urban expansion to 2030 and direct impacts on biodiversity and carbon pools. <i>PNAS</i> 109, 16083–16088. https://doi.org/10.1073/pnas.1211658109
Global Human Settlements	Land Use & Land Cover, Built Environment, Human Impact	NULL	NA	No	NA
Global Intertidal Change	Water, Biodiversity, Ecosystem Services	Raster	Yes	No	Murray, N.J., Phinn, S.R., DeWitt, M., Ferrari, R., Johnston, R., Lyons, M.B., Clinton, N., Thau, D., Fuller, R.A., 2019. The global distribution and trajectory of tidal flats. <i>Nature</i> 565, 222. https://doi.org/10.1038/s41586-018-0805-8
Global Islands Explorer	Land Use & Land Cover, Boundaries	Vector	Yes	No	USGS/ESRI/WCMC/Island Conservation. (2018). Global Islands Explorer. Retrieved from https://rmgsc.cr.usgs.gov/gie/gie.shtml .
Global Mangrove Soil Carbon	Climate and Carbon	Raster	Yes	No	Sanderman, J., Hengl, T., Fiske, G., Solvik, K., Adame, M.F., Benson, L., Bukoski, J.J., Carnell, P., Cifuentes-Jara, M., Donato, D., Duncan, C., Eid, E.M., Ermgassen, P. zu, Lewis, C.J.E., Macreadie, P.I., Glass, L., Gress, S., Jardine, S.L., Jones, T.G., Nsombo, E.N., Rahman, M.M., Sanders, C.J., Spalding, M., Landis, E., 2018. A global map of mangrove forest soil carbon at 30 m spatial resolution. <i>Environ. Res. Lett.</i> 13, 055002. https://doi.org/10.1088/1748-9326/aabe1c

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Global Surface Water - Maximum Water Extent 1984-2018	Water	Raster	No	No	Pekel, J.-F., Cottam, A., Gorelick, N., Belward, A.S., 2016. High-resolution mapping of global surface water and its long-term changes. <i>Nature</i> 540, 418–422. https://doi.org/10.1038/nature20584
Global Surface Water - Occurrence 1984-2018	Water	Raster	No	No	Pekel, J.-F., Cottam, A., Gorelick, N., Belward, A.S., 2016. High-resolution mapping of global surface water and its long-term changes. <i>Nature</i> 540, 418–422. https://doi.org/10.1038/nature20584
Global Surface Water - Occurrence Change Intensity 1984-2018	Water	Raster	No	No	Pekel, J.-F., Cottam, A., Gorelick, N., Belward, A.S., 2016. High-resolution mapping of global surface water and its long-term changes. <i>Nature</i> 540, 418–422. https://doi.org/10.1038/nature20584
Global Surface Water - Recurrence 1984-2018	Water	Raster	No	No	Pekel, J.-F., Cottam, A., Gorelick, N., Belward, A.S., 2016. High-resolution mapping of global surface water and its long-term changes. <i>Nature</i> 540, 418–422. https://doi.org/10.1038/nature20584
Global Surface Water - Seasonality 2014-2018	Water	Raster	No	No	Pekel, J.-F., Cottam, A., Gorelick, N., Belward, A.S., 2016. High-resolution mapping of global surface water and its long-term changes. <i>Nature</i> 540, 418–422. https://doi.org/10.1038/nature20584
Global Surface Water - Transitions 2000-2018 (SDG 6.6.1 Indicator)	Water	Raster	No	No	Pekel, J.-F., Cottam, A., Gorelick, N., Belward, A.S., 2016. High-resolution mapping of global surface water and its long-term changes. <i>Nature</i> 540, 418–422. https://doi.org/10.1038/nature20584
Global Wetlands: Tropical and Subtropical Wetlands Distribution	Water, Biodiversity	Raster	Yes	No	Gumbrecht, T., Roman-Cuesta, R.M., Verchot, L., Herold, M., Wittmann, F., Householder, E., Herold, N., Murdiyarsa, D., 2017. An expert system model for mapping tropical wetlands and peatlands reveals South America as the largest contributor. <i>Global Change Biology</i> 23, 3581–3599. https://doi.org/10.1111/gcb.13689

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Global Wind Atlas: Power Density	Society, Built Environment	Raster	Yes	No	[Data/information/map obtained from the] “Global Wind Atlas 3.0, a free, web-based application developed, owned and operated by the Technical University of Denmark (DTU). The Global Wind Atlas 3.0 is released in partnership with the World Bank Group, utilizing data provided by Vortex, using funding provided by the Energy Sector Management Assistance Program (ESMAP). For additional information: https://globalwindatlas.info ”
Global subnational infant mortality rates (2015)	Society	Raster	Yes	No	Center for International Earth Science Information Network - CIESIN - Columbia University. 2005. Poverty Mapping Project: Global Subnational Infant Mortality Rates. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). http://dx.doi.org/10.7927/H4PZ56R2 .
Gridded Livestock of the World 3 (GLW3)	Agriculture, Society, Human Impact	Raster	Yes	No	Gilbert, M., Nicolas, G., Cinardi, G., Van Boeckel, T.P., Vanwambeke, S.O., Wint, G.R.W., Robinson, T.P., 2018. Global distribution data for cattle, buffaloes, horses, sheep, goats, pigs, chickens and ducks in 2010. <i>Scientific Data</i> 5, 180227. https://doi.org/10.1038/sdata.2018.227
Human Footprint Difference 1993,2009 v1	Human Impact, Society	Raster	Yes	No	Venter, O., Sanderson, E.W., Magrath, A., Allan, J.R., Beher, J., Jones, K.R., Possingham, H.P., Laurance, W.F., Wood, P., Fekete, B.M., Levy, M.A., Watson, J.E.M., 2016. Sixteen years of change in the global terrestrial human footprint and implications for biodiversity conservation. <i>Nature Communications</i> 7, 12558. https://doi.org/10.1038/ncomms12558

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Human Footprint Difference 2000,2013 v2	Human Impact, Society	Raster	Yes	No	Williams, B.A., Venter, O., Allan, J.R., Atkinson, S.C., Rehbein, J.A., Ward, M., Marco, M.D., Grantham, H.S., Ervin, J., Goetz, S.J., Hansen, A.J., Jantz, P., Pillay, R., Rodríguez-Buritica, S., Supples, C., Virnig, A.L.S., Watson, J.E.M., 2020. Change in Terrestrial Human Footprint Drives Continued Loss of Intact Ecosystems. <i>One Earth</i> 3, 371–382. https://doi.org/10.1016/j.oneear.2020.08.009
Human Modification Index	Human Impact	Raster	No	No	Theobald, D. M., Kennedy, C., Chen, B., Oakleaf, J., Baruch-Mordo, S., and Kiesecker, J. 2020. Earth transformed: detailed mapping of global human modification from 1990 to 2017, <i>Earth Syst. Sci. Data.</i> , https://doi.org/10.5194/essd-2019-252 .
Increase in SOC on Croplands After 20 Years	Climate and Carbon, Agriculture	Raster	Yes	No	Zomer, R.J., Bossio, D.A., Sommer, R., Verchot, L.V., 2017. Global Sequestration Potential of Increased Organic Carbon in Cropland Soils. <i>Scientific Reports</i> 7, 15554. https://doi.org/10.1038/s41598-017-15794-8
Intact Forest Landscapes (IFLs)	Biodiversity	Vector	Yes	No	Potapov, P., Hansen, M.C., Laestadius, L., Turubanova, S., Yaroshenko, A., Thies, C., Smith, W., Zhuravleva, I., Komarova, A., Minnemeyer, S., Esipova, E., 2017. The last frontiers of wilderness: Tracking loss of intact forest landscapes from 2000 to 2013. <i>Science Advances</i> 3, e1600821. https://doi.org/10.1126/sciadv.1600821
MODIS Active Fires - All Fires	Natural Hazards	Raster	Yes	No	NASA Near Real-Time and MCD14DL MODIS Active Fire Detections (WMS format). Data set. Available online [https://earthdata.nasa.gov/active-fire-data]
MODIS Enhanced Vegetation Index (EVI) Sum 2000-2019	Ecosystem Services	Raster	Yes	No	Didan, K. (2015). MOD13Q1 MODIS/Terra Vegetation Indices 16-Day L3 Global 250m SIN Grid V006 [Data set]. NASA EOSDIS Land Processes DAAC. Accessed 2020-02-10 from https://doi.org/10.5067/MODIS/MOD13Q1.006

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
MODIS Gross Primary Production (GPP)	Ecosystem Services	Raster	Yes	No	Running, S., Mu, Q., Zhao, M. (2015). MOD17A2H MODIS/Terra Gross Primary Productivity 8-Day L4 Global 500m SIN Grid V006 [Data set]. NASA EOSDIS Land Processes DAAC. Accessed 2021-01-22 from https://doi.org/10.5067/MODIS/MOD17A2H.006
MODIS NDVI 2000 - 2020	Ecosystem Services	Raster	Yes	No	Didan, K. (2015). MOD13Q1 MODIS/Terra Vegetation Indices 16-Day L3 Global 250m SIN Grid V006 [Data set]. NASA EOSDIS Land Processes DAAC. Accessed 2020-12-07 from https://doi.org/10.5067/MODIS/MOD13Q1.006
MODIS Net Primary Production (NPP)	Ecosystem Services	Raster	Yes	No	Running, S., Zhao, M. (2019). MOD17A3HGF MODIS/Terra Net Primary Production Gap-Filled Yearly L4 Global 500 m SIN Grid V006 [Data set]. NASA EOSDIS Land Processes DAAC. Accessed 2021-01-25 from https://doi.org/10.5067/MODIS/MOD17A3HGF.006
Marine Ecoregions of the World (MEOW)	Boundaries	Vector	Yes	No	Spalding, M.D., Fox, H.E., Allen, G.R., Davidson, N., Ferdaña, Z.A., Finlayson, M., Halpern, B.S., Jorge, M.A., Lombana, A., Lourie, S.A., Martin, K.D., McManus, E., Molnar, J., Recchia, C.A., Robertson, J., 2007. Marine Ecoregions of the World: A Bioregionalization of Coastal and Shelf Areas. <i>BioScience</i> 57, 573–583. https://doi.org/10.1641/B570707
Marine Pollution Index	Human Impact, Water	Raster	Yes	No	Halpern, B.S., Frazier, M., Potapenko, J., Casey, K.S., Koenig, K., Longo, C., Lowndes, J.S., Rockwood, R.C., Selig, E.R., Selkoe, K.A., Walbridge, S., 2015. Spatial and temporal changes in cumulative human impacts on the world's ocean. <i>Nature Communications</i> 6, 7615. https://doi.org/10.1038/ncomms8615

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Marine Priority Areas	Water, Biodiversity, Climate and Carbon, Sustainable Development	Raster	Yes	No	Sala, E., Mayorga, J., Bradley, D., Cabral, R.B., Atwood, T.B., Auber, A., Cheung, W., Costello, C., Ferretti, F., Friedlander, A.M., Gaines, S.D., Garilao, C., Goodell, W., Halpern, B.S., Hinson, A., Kaschner, K., Kesner-Reyes, K., Leprieur, F., McGowan, J., Morgan, L.E., Mouillot, D., Palacios-Abrantes, J., Possingham, H.P., Rechberger, K.D., Worm, B., Lubchenco, J., 2021. Protecting the global ocean for biodiversity, food and climate. <i>Nature</i> 1–6. https://doi.org/10.1038/s41586-021-03371-z
Marine Protected Areas (WDPA)	Protected and Conserved Areas, Water	Vector	No	No	UNEP-WCMC, 2021. The World Database on Protected Areas (WDPA) [On-line]. Available at: www.protectedplanet.net .
Marine Wilderness	Water	Vector	Yes	No	Jones, K.R., Klein, C.J., Halpern, B.S., Venter, O., Grantham, H., Kuempel, C.D., Shumway, N., Friedlander, A.M., Possingham, H.P., Watson, J.E.M., 2018. The Location and Protection Status of Earth’s Diminishing Marine Wilderness. <i>Current Biology</i> 28, 2506-2512.e3. https://doi.org/10.1016/j.cub.2018.06.010/
NatureMap - Areas of global significance for restoration	Restoration, Nature Based Solutions	Raster	No	No	Bernardo B. N. Strassburg, Alvaro Iribarrem, Hawthorne L. Beyer, Carlos Leandro Cordeiro, Renato Crouzeilles, Catarina Jakovac, André Junqueira, Eduardo Lacerda, Agnieszka E. Latawiec, Andrew Balmford, Thomas M. Brooks, Stuart H. M. Butchart, Robin L. Chazdon, Karl-Heinz Erb, Pedro Brancalion, Graeme Buchanan, David Cooper, Sandra Diaz, Paul F. Donald, Valerie Kapos, David Leclere, Lera Miles, Michael Obersteiner, Christoph Plutzer, Carlos Alberto de M. Scaramuzza, Fabio R. Scarano, Piero Visconti (2020). Global priority areas for ecosystem restoration. <i>Nature</i> , 586(7831), pp.724-729. https://doi.org/10.1038/s41586-020-2784-9

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
NatureMap - Forest Biodiversity Intactness Index	Biodiversity	Raster	No	No	NA
NatureMap - Global Habitats	Biodiversity	Raster	Yes	No	Jung, M., P. R. Dahal, S. H. M. Butchart, P. F. Donald, X. De Lamo, M. Lesiv, V. Kapos, C. Rondinini, and P. Visconti. 2020. A global map of terrestrial habitat types. <i>Scientific Data</i> 7:256. https://doi.org/10.5281/zenodo.3666245
NatureMap - Human Impact on Forests	Biodiversity, Human Impact	Raster	No	No	Lesiv, M., Schepaschenko, D., Buchhorn, M. et al. Global forest management data for 2015 at a 100 m resolution. <i>Sci Data</i> 9, 199 (2022).
NatureMap - Human Pressures	Human Impact	Raster	No	No	UNEP-WCMC (2020). Human pressures on biodiversity, water and carbon. Cambridge, UK.
NatureMap - Live Biomass Carbon Density	Climate and Carbon	Raster	No	No	García-Rangel, S. et al. (In prep) Global distribution of natural carbon stocks potentially vulnerable to land use changes
NatureMap - Potential Clean Water Provision	Ecosystem Services, Society, Sustainable Development	Raster	No	No	Mulligan, M. (2019) Potential Clean Water Provision. Model results from the Costingnature version 3 policy support system (non commercial-use). http://www.policysupport.org/costingnature [prepared by user mark.mulligan_kcl.ac.uk]
NatureMap - Realised Clean water provision	Ecosystem Services, Society, Sustainable Development	Raster	No	No	Mulligan, M. (2019) Relative realised water provisioning services index. Model results from the Costingnature version 3 policy support system (non commercial-use). http://www.policysupport.org/costingnature [prepared by user mark.mulligan_kcl.ac.uk]

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
NatureMap - Threatened Species Richness	Biodiversity	Raster	No	No	UNEP-WCMC (2020) Threatened species richness. Derived from Areas of Habitat maps created from data from the IUCN Red List, BirdLife International, the Global Assessment of Reptile Distributions (GARD), the Botanical Information and Ecology Network (BIEN) database and additional vascular plant species ranges were created from point data from the IUCN Red List, Botanic Gardens Conservation International (BGCI), the Global Biodiversity Information Facility (GBIF) and iNaturalist. Cambridge, UK.
NatureMap - Vulnerable Soil Organic Carbon Density	Climate and Carbon, Nature Based Solutions	Raster	No	No	García-Rangel, S. et al. (In prep) Global distribution of natural carbon stocks potentially vulnerable to land use changes.
Pelagic Provinces of the world (PPOW)	Boundaries	Vector	No	No	Spalding, M.D., Agostini, V.N., Rice, J., Grant, S.M., 2012. Pelagic provinces of the world: A biogeographic classification of the world's surface pelagic waters. <i>Ocean & Coastal Management</i> 60, 19–30. https://doi.org/10.1016/j.ocecoaman.2011.12.016
Protected Area Connectivity (ProtConn)	Protected and Conserved Areas	Vector	Yes	No	Saura, S., Bertzky, B., Bastin, L., Battistella, L., Mandrici, A., Dubois, G., 2018. Protected area connectivity: Shortfalls in global targets and country-level priorities. <i>Biological Conservation</i> 219, 53–67. https://doi.org/10.1016/j.biocon.2017.12.020

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Protected Areas Management Effectiveness (PAME)	Protected and Conserved Areas	NULL	No	No	Hockings, M., Stolton, S., Leverington, F., Dudley, N., Courrau, J. 2006. Evaluating Effectiveness: A framework for assessing management effectiveness of protected areas. 2nd edition. IUCN, Gland, Switzerland and Cambridge, UK. xiv + 105 pp. Geldmann, J., Coad, L., Barnes, M., Craigie, I.D., Hockings, M., Knights, K., Leverington, F., Cuadros, I.C., Zamora, C., Woodley, S., Burgess, N.D., 2015. Changes in protected area management effectiveness over time: A global analysis. <i>Biological Conservation</i> 191, 692–699. https://doi.org/10.1016/j.biocon.2015.08.029 Leverington, F., Costa, K.L., Pavese, H., Lisle, A., Hockings, M., 2010. A Global Analysis of Protected Area Management Effectiveness. <i>Environmental Management</i> 46, 685–698. https://doi.org/10.1007/s00267-010-9564-5
Terrestrial Biomes (Ecoregions2017)	Biodiversity	Vector	Yes	No	Dinerstein, E., Olson, D., Joshi, A., Vynne, C., Burgess, N.D., Wikramanayake, E., Hahn, N., Palminteri, S., Hedao, P., Noss, R., Hansen, M., Locke, H., Ellis, E.C., Jones, B., Barber, C.V., Hayes, R., Kormos, C., Martin, V., Crist, E., Sechrest, W., Price, L., Baillie, J.E.M., Weeden, D., Suckling, K., Davis, C., Sizer, N., Moore, R., Thau, D., Birch, T., Potapov, P., Turubanova, S., Tyukavina, A., de Souza, N., Pintea, L., Brito, J.C., Llewellyn, O.A., Miller, A.G., Patzelt, A., Ghazanfar, S.A., Timberlake, J., Klöser, H., Shennan-Farpón, Y., Kindt, R., Lillesø, J.-P.B., van Breugel, P., Gaudal, L., Voge, M., Al-Shammari, K.F., Saleem, M., 2017. An Ecoregion-Based Approach to Protecting Half the Terrestrial Realm. <i>BioScience</i> 67, 534–545. https://doi.org/10.1093/biosci/bix014

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
Terrestrial Protected Areas (WDPA)	Protected and Conserved Areas	Vector	No	No	UNEP-WCMC, 2021. The World Database on Protected Areas (WDPA) [On-line]. Available at: www.protectedplanet.net .
Territorial Seas (12 NM)	Boundaries	Vector	Yes	No	Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Territorial Seas (12NM), version 3.
Total Biomass Carbon in Grasslands	Climate and Carbon	Raster	Yes	No	Spawn, S.A., Sullivan, C.C., Lark, T.J. et al. Harmonized global maps of above and belowground biomass carbon density in the year 2010. <i>Sci Data</i> 7, 112 (2020). https://doi.org/10.1038/s41597-020-0444-4 Buchhorn, M. ; Lesiv, M. ; Tsendbazar, N. - E. ; Herold, M. ; Bertels, L. ; Smets, B. Copernicus Global Land Cover Layers—Collection 2. <i>Remote Sensing</i> 2020, 12Volume 108, 1044. doi:10.3390/rs12061044
Tree Loss 2000-2020 (metric layer)	Biodiversity, Ecosystem Services	NULL	NA	No	NA
UNESCO Biosphere Reserves	Protected and Conserved Areas	Vector	NA	No	UNEP-WCMC, 2021. The World Database on Protected Areas (WDPA) [On-line]. Available at: www.protectedplanet.net .
UNESCO World Heritage Sites	Protected and Conserved Areas	Vector	NA	No	UNESCO World Heritage Centre, (2020). World Heritage List. Retrieved from https://whc.unesco.org/en/list/ .
VIIRS Nightlights 2014-2020	Built Environment, Human Impact	Raster	Yes	No	Mills, S., Weiss, S., Liang, C. 2013. VIIRS day/night band (DNB) stray light characterization and correction. Presented at the Proc.SPIE. https://doi.org/10.1117/12.2023107
WCMC Terrestrial Carbon 2010	Climate and Carbon	NULL	NA	No	NA
WDPA Simple View (metric layer)	Protected and Conserved Areas	NULL	NA	No	NA
World Atlas of Desertification (WAD)	Human Impact	Raster	No	No	Cherlet, M., Hutchinson, C., Reynolds, J., Hill, J., Sommer, S., von Maltitz, G. (Eds.), World Atlas of Desertification, Publication Office of the European Union, Luxembourg, 2018. doi:10.2760/06292

Table 1: UN Biodiversity Lab Data List (*continued*)

Data Name	Category	Data type	Download?	Time Series?	Citation(s)
World Database on Other Effective Area-based Conservation Measures (WD-OECM)	Protected and Conserved Areas	Vector	No	No	UNEP-WCMC and IUCN (year), Protected Planet: The World Database on other effective area-based conservation measures] [On-line], Aug 2021, Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net .
World Database on Protected Areas	Protected and Conserved Areas	Vector	No	No	UNEP-WCMC and IUCN (2021), Protected Planet: The World Database on Protected Areas (WDPA) [On-line], [insert month/year of the version used], Cambridge, UK: UNEP-WCMC and IUCN Available at: www.protectedplanet.net .
World Ecosystems	Biodiversity	Raster	Yes	No	Sayre, R., Karagulle, D., Frye, C., Boucher, T., Wolff, N.H., Breyer, S., Wright, D., Martin, M., Butler, K., Van Graafeiland, K., Touval, J., Sotomayor, L., McGowan, J., Game, E.T., Possingham, H., 2020. An assessment of the representation of ecosystems in global protected areas using new maps of World Climate Regions and World Ecosystems. <i>Global Ecology and Conservation</i> 21, e00860. https://doi.org/10.1016/j.gecco.2019.e00860

Last updated: 2023-02-01 16:40:56