



### Progress on Water-Related Ecosystems



of the world's water basins is experiencing rapid changes in the area covered by surface waters (SDG 6 indicator 6.6.1, 2020)

- Data provider: UNEP through <a href="https://www.sdg661.app">www.sdg661.app</a> and <a href="https://www.sdg661.app">Environment Live</a>
- Available time series: 2005-2020
- Number of countries (and areas) reporting in the last five years: 213
- Proportion of world population covered by reporting in the last five years:98%
- Proportion of world economy covered by reporting in the last five years: 99%
- Proportion of world land area covered by reporting in the last five years: 99%
- Learn more about the indicator here
   Read the latest progress report here



Protecting and restoring water-related ecosystems will mitigate and strengthen resilience to climate change. For instance, wetlands trap carbon from the atmosphere and protect coastal areas from storm surges and inland areas from both floods and droughts by retaining water.





SDG target 6.6 is: 'By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.'

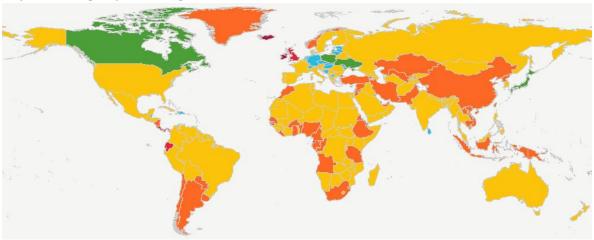
To track progress towards the target, indicator 6.6.1 tracks changes over time in water-related ecosystems such as lakes, rivers, wetlands and mangroves, with the help of earth observations.





## Global status of indicator 6.6.1 Proportion of water basins experiencing high surface water extent changes (2020) [1]

Changes include both increases and decreases in the area covered by surface water, corresponding to flooding and droughts and often associated with climate change. In --- countries (and areas) (representing ---% of the global land area and ---% of the global population), more than 50% of water basins is experiencing rapid changes. In --- countries (and areas) (representing ---% of the global land area and ---% of the global population), all water basins are experiencing rapid changes.



The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. A dispute exists between the Governments of Argentina and the United Kingdom of Greater Britain and Northern Ireland concerning the sovereignty over the Falkland Islands (Malvinas).

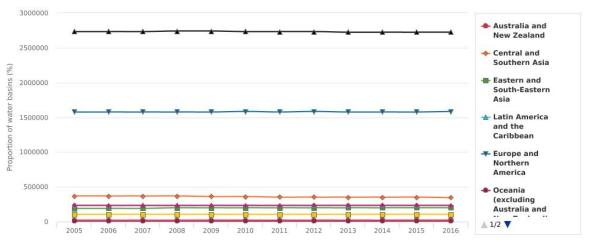
#### Proportion of water basins (%)



Change over time of indicator Proportion of water basins experiencing high surface water extent changes [2]







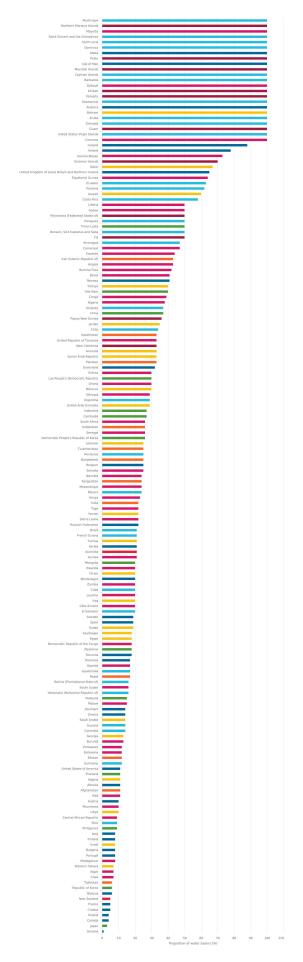




Status in different countries (or areas) of indicator 6.6.1 Proportion of water basins experiencing high surface water extent changes (2020) [4]





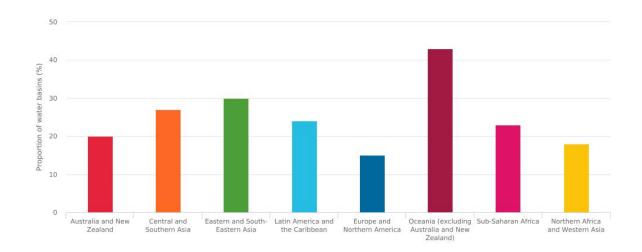








Status in different SDG regions of indicator 6.6.1 Proportion of water basins experiencing high surface water extent changes (2020) [5]







# Status of different components of Indicator 6.6.1 Change in the extent of water-related ecosystems over time





Source data indicator 6.6.1 Change in the extent of water-related ecosystems over  $\mathsf{time}^{^{[7]}}$ 

Country (or area), regional and world data for the latest year of reporting: 2007 - 2020

		6.6.1 Change in the extent of water-related ecosystems over time				
Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)	
Andorra	2016-2020	0.62	473.39	11.8	86	
Austria	2015-2020	633.49	85840.4	178841.4	81.8	
Botswana	2016-2020	383.65	221199.69		78	
Estonia	2013-2020	2063.14	99687.06	16122.87	75.7	
Finland	2012-2020	30116.2	61476		96.8	
Kenya	2016-2020	11584.41	381820.56		86.5	
Latvia	2012-2020	964.65	1755.6	25802.7	66.5	
Malaysia	2010-2016	3907.33	5520.64	14500000000000		
Netherlands	2015-2020	1042.49	3627.6		95.9	
Marshall Islands	2016-2017	19.83	0.04	0.15	100	
Peru	2016-2020	12763.17	99.2		25.4	
Poland	2015-2020	3552.05	4204.45	1670000000000	96.1	
Romania	2016-2020	2419.15	5477.27	10075.35	83.7	
Slovenia	2015-2020	42.13	472.65	36026	83.9	
South Africa	2016-2020	3415.37	58455.3	5637506990	52.1	
Sweden	2015-2020	35683.82	31857.11		48.4	





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Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)	
Switzerland	2007-2020	1367.29	43500	233643.4	61.1	
Zambia	2016-2017	11941.07	55534.5	193120		
Fiji	2016-2020	525.88		83788556.13	100	
Japan	2015-2020	7910.77		2140000000000	37.5	
Morocco	2016-2017	630.89		18340	79.2	
Sudan	2016-2018	1571.87		178875969.8	86.1	
Afghanistan	2016	580.46				
Albania	2016	518.5				
Algeria	2016	421.77				
American Samoa	2016	0.68				
Angola	2016	913.35				
Antigua and Barbuda	2016-2020	33.53			0	
Azerbaijan	2016	72059.04				
Argentina	2016-2020	27897.89			18	
Australia	2016-2020	14511.39			87.7	
Bahamas	2016	1076.81				
Bahrain	2016	52.38				
Bangladesh	2016	4681.36				





		6.6.1 Change	water-related e	-related ecosystems	
Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)
Armenia	2016	1333.45			
Barbados	2016	0.2			
Belgium	2016	157.95			
Bermuda	2016	26.72			
Bhutan	2016	75.43			
Bolivia (Plurinational State of)	2016	12019.8			
Bosnia and Herzegovina	2016-2020	197.82			30.6
Brazil	2016-2020	104863.47			71
Belize	2016-2020	281.48			79
Solomon Islands	2016	309.67			
British Virgin Islands	2016	5.48			
Brunei Darussalam	2016	62.37			
Bulgaria	2016-2020	1028.15			65.6
Myanmar	2016	6533.38			
Burundi	2016-2020	1955.15			100
Belarus	2016-2020	1804.6			88.9





		6.6.1 Change	in the extent of over t	water-related e	cosystems
Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)
Cambodia	2016	3431.14			
Cameroon	2016	1875.94			
Canada	2016-2020	698030.27			82.2
Cabo Verde	2016	280.67			
Cayman Islands	2016	4.66			
Central African Republic	2016	431.46			
Sri Lanka	2016	1025.46			
Chad	2016	1360.09			
Chile	2016-2020	12106.65			84
China	2016	111859.06			
Colombia	2016	9438.51			
Comoros	2016	5.61			
Mayotte	2016	2.82			
Congo	2016	1675.35			
Democratic Republic of the Congo	2016-2020	35865.05			66
Cook Islands	2016	1.31			
Costa Rica	2016-2020	170.38			68.5





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Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)	
Croatia	2016-2020	630.15			55.9	
Cuba	2016	2543.54				
Cyprus	2016-2020	13.37			61.4	
Czechia	2016-2020	503.7			88.2	
Benin	2016-2020	119.81			89.4	
Denmark	2016-2020	2416.52			53.4	
Dominica	2016	0.32				
Dominican Republic	2016-2020	478.49			70.6	
Ecuador	2016	2121.1				
El Salvador	2016-2020	340.07			59.7	
Equatorial Guinea	2016	112.82				
Ethiopia	2016-2020	6896.89			96.8	
Eritrea	2016	47.54				
Faroe Islands	2016	0				
Falkland Islands (Malvinas)	2016	170.62				
France	2016-2020	3689.84			78.9	
French Guiana	2016	519.53				





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French Polynesia	2016	264.99				
Djibouti	2016	151.31				
Gabon	2016-2020	2133.65			93.6	
Georgia	2016-2020	308.25			92	
Gambia	2016	742.35				
Germany	2016-2017	3838.09			39	
Ghana	2016	6064.95				
Gibraltar	2016	0.24				
Kiribati	2016	140.46				
Greece	2016-2020	2903.25			40.6	
Greenland	2016	37637.35				
Grenada	2016	1.33				
Guadeloupe	2016	2.75				
Guam	2016	1.52				
Guatemala	2016	1153.56				
Guinea	2016-2017	169.02			80.9	
Guyana	2016-2020	1421.28			67.8	
Haiti	2016	212.19				
Holy See	2016	0				





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Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)	
Honduras	2016	836.29				
China, Hong Kong Special Administrative Region	2016	116.22				
Hungary	2016-2020	1144.91			59.3	
Iceland	2016-2020	2677.91			100	
India	2016	16686.13				
Indonesia	2016	30901.51				
Iran (Islamic Republic of)	2016	57712.02				
Iraq	2016	4210.86				
Ireland	2016-2020	1528.32			59.4	
Israel	2016	457.46				
Italy	2016	3627.02				
Côte d'Ivoire	2016-2020	1812.46			80	
Jamaica	2016-2020	19.83			57.2	
Kazakhstan	2016-2020	158805.77			63.9	
Jordan	2016-2020	446.72			100	
Democratic People's Republic of Korea	2016	1672.69				





		6.6.1 Change in the extent of water-related ecosyste over time				
Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)	
Republic of Korea	2016-2020	1820.02			93.3	
Kuwait	2016	84.48				
Kyrgyzstan	2016	7249.77				
Lao People's Democratic Republic	2016-2020	1656.4			80	
Lebanon	2016-2017	17.53			50	
Lesotho	2016-2020	49.4			100	
Liberia	2016-2020	197.99			50	
Libya	2016	59.64				
Liechtenstein	2016-2020	0.57			80	
Lithuania	2016-2020	916.78			98.7	
Luxembourg	2016	5.31				
Madagascar	2016-2020	2542.55			90.7	
Malawi	2016	23757.17				
Maldives	2016	16.72				
Mali	2016-2020	1493.27			70	
Malta	2016	2.8				
Martinique	2016	1.43				
Mauritania	2016	152.75				





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Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)	
Mauritius	2016	16.28				
Mexico	2016-2020	10345.59			54.9	
Monaco	2016	0				
Mongolia	2016	14021.39				
Republic of Moldova	2016	290.05				
Montenegro	2016-2020	262.52			88.1	
Montserrat	2016	0.58				
Mozambique	2016	11620.37				
Oman	2016	235.96				
Namibia	2016-2017	289.8			78.6	
Nauru	2016	0				
Nepal	2016	203.4				
Aruba	2016	1.11				
New Caledonia	2016	71.76				
Vanuatu	2016	65.67				
New Zealand	2016-2020	7072			72.2	
Nicaragua	2016	9761.65				
Niger	2016-2020	326.06			60	





		6.6.1 Change	cosystems		
Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)
Nigeria	2016-2020	4212.87			12.5
Niue	2016	0			
Norfolk Island	2016	0			
Norway	2016-2020	17590.13			100
Northern Mariana Islands	2016	3.38			
Micronesia (Federated States of)	2016	4.16			
Palau	2016	1.91			
Pakistan	2016	2468.87			
Panama	2016-2020	729.8			64.4
Papua New Guinea	2016	5280.96			
Paraguay	2016-2020	3407.61			71.6
Philippines	2016	6102.27			
Pitcairn	2016	0			
Portugal	2016	773.56			
Guinea-Bissau	2016	55.38			
Timor-Leste	2016	10.25			
Puerto Rico	2016	28.64			





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Qatar	2016	166.06				
Russian Federation	2016-2020	546991.95			96	
Rwanda	2016-2020	1505.15			78.8	
Saint Helena	2016	1.18				
Saint Kitts and Nevis	2016	1.68				
Anguilla	2016	1.61				
Saint Lucia	2016	0.36				
Saint Pierre and Miquelon	2016	16.78				
Saint Vincent and the Grenadines	2016	1.74				
San Marino	2016	0				
Sao Tome and Principe	2016	0				
Saudi Arabia	2016	1481.16				
Senegal	2016-2020	1269.66			44.4	
Serbia	2016-2020	566.21			83.1	
Seychelles	2016	5.85				
Sierra Leone	2016-2020	155.9			41.7	





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Country (or area), SDG region, world	Year	Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)	
Singapore	2016-2020	36.98			100	
Slovakia	2016-2020	265.91			57.2	
Viet Nam	2016	5614.44				
Somalia	2016	56.6				
Zimbabwe	2016-2020	3489.35			83.3	
Spain	2016	3222.98				
South Sudan	2016-2017	594.4			100	
Western Sahara	2016	8.66				
Suriname	2016	1866.88				
Svalbard and Jan Mayen Islands	2016	0				
Eswatini	2016-2020	56.17			87.5	
Syrian Arab Republic	2016	1009.77				
Tajikistan	2016	1540.07				
Thailand	2016-2020	5434.41			36	
Togo	2016-2020	101.73			100	
Tokelau	2016	1.74				
Tonga	2016	15.74				





	Year	6.6.1 Change in the extent of water-related ecosystems over time				
Country (or area), SDG region, world		Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)	
Trinidad and Tobago	2016-2020	12.85			87.5	
United Arab Emirates	2016-2017	162.39			40	
Tunisia	2016-2020	304.96			84.9	
Turkey	2016	11993.4				
Turkmenistan	2016	86383.38				
Turks and Caicos Islands	2016	35.64				
Tuvalu	2016	12				
Uganda	2016-2020	36212.66			0	
Ukraine	2016	13115.74				
North Macedonia	2016-2020	502.85			70	
Egypt	2016	6376.32				
United Kingdom of Great Britain and Northern Ireland	2016-2020	3677.98			89.9	
Guernsey	2016	0.45				
Jersey	2016	0.36				
Isle of Man	2016	0.93				





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United Republic of Tanzania	2016-2020	55582.32			85.3	
United States of America	2016-2020	154786.25			33.7	
United States Virgin Islands	2016	2.73				
Burkina Faso	2016-2020	370.06			97.7	
Uruguay	2016-2020	3973.67			75.9	
Uzbekistan	2016	9345.05				
Venezuela (Bolivarian Republic of)	2016	10397.65				
Wallis and Futuna Islands	2016	0.38				
Samoa	2016-2020	5.17			100	
Yemen	2016	917.3				
Northern Africa and Western Asia	2016	103868.32				
Oceania (excluding Australia and New Zealand)	2016	6723.8				
Europe and Northern America	2016-2020	1583218.83			75.8	





Country (or area), SDG region, world	Year	6.6.1 Change in the extent of water-related ecosystems over time				
		Spatial extent of water-related ecosystems from earth observation data, Lakes, rivers, estuaries and artificial water bodies (km2)	Spatial extent of water-related ecosystems from national data, Total (km2)	Water quantity from national data, Total (10^6 m3/year)	Water quality from national data, Overall (Indicator 6.3.2 Proportion of bodies of water with good ambient water quality, %)	
Eastern and South-Eastern Asia	2016	201537.35				
Central and Southern Asia	2016	346773.9				
World	2016-2020	2727520.54			60	
Australia and New Zealand	2016-2020	21583.39			87.1	
Sub-Saharan Africa	2016-2020	233457.33			70.5	
Latin America and the Caribbean	2016-2020	230357.63			57	





### Description of indicators

[1]

6.6.1 Change in the extent of water-related ecosystems over time > Spatial extent of water-related ecosystems from earth observation data > Proportion of water basins experiencing high surface water extent changes

Percentage change in the spatial extent of open water bodies, compared to the baseline year period of 2001–2005.

[2]

6.6.1 Change in the extent of water-related ecosystems over time > Spatial extent of water-related ecosystems from earth observation data > Proportion of water basins experiencing high surface water extent changes

Percentage change in the spatial extent of open water bodies, compared to the baseline year period of 2001–2005.

[3]

6.6.1 Change in the extent of water-related ecosystems over time > Spatial extent of water-related ecosystems from earth observation data > Proportion of water basins experiencing high surface water extent changes

Percentage change in the spatial extent of open water bodies, compared to the baseline year period of 2001–2005.

[4]

6.6.1 Change in the extent of water-related ecosystems over time > Spatial extent of water-related ecosystems from earth observation data > Proportion of water basins experiencing high surface water extent changes

Percentage change in the spatial extent of open water bodies, compared to the baseline year period of 2001–2005.

[5]

6.6.1 Change in the extent of water-related ecosystems over time > Spatial extent of water-related ecosystems from earth observation data > Proportion of water basins experiencing high surface water extent changes

Percentage change in the spatial extent of open water bodies, compared to the baseline year period of 2001–2005.

[6]





### About

Through the UN-Water Integrated Monitoring Initiative for Sustainable Development Goal (SDG) 6, the United Nations seeks to support countries in monitoring water- and sanitation-related issues within the framework of the 2030 Agenda for Sustainable Development, and in compiling country data to report on global progress towards SDG 6. The Initiative brings together the United Nations agencies who are formally mandated to compile country data for the purpose of global reporting on SDG 6.

To learn more about water and sanitation in the 2030 Agenda for Sustainable Development, and the Integrated Monitoring Initiative for SDG 6, visit our website: <a href="https://www.sdg6monitoring.org">www.sdg6monitoring.org</a>

Monitoring SDG 6 involves a wide range of stakeholders across different sectors and levels of government. To enable a comprehensive assessment and analysis of the state of water resources and possible development paths, one of the monitoring effort's key objectives is to collate all the information, in support of an integrated management approach that helps reduce institutional fragmentation. For this reason, the Integrated Monitoring Initiative has developed the SDG 6 Data Portal, which brings together data on all the SDG 6 global indicators, as well as other key social, economic and environmental data.

To explore the data and assess progress towards SDG 6, and generate snapshots such as this one, visit our portal: <a href="https://www.sdg6data.org">www.sdg6data.org</a>.





















We gratefully acknowledge the contributions to the UN-Water Inter-Agency Trust Fund from the following entities:















Swiss Agency for Development and Cooperation SDC

