|  |  |
| --- | --- |
| **TARGET 6.6:** By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes  **INDICATOR 6.6.1D(1):** Change in the spatial extent of water related ecosystems over time, including wetlands, reservoirs, lakes and estuaries as a percentage of total land area. | |
| **Indicator definition and method of computation (MoC)** | |
| **DEFINITION:** Percentage change in the surface area of wetlands (vegetated and unvegetated/arid), estuaries, reservoirs and lakes over time from a predefined baseline, expressed as a % of the total land area. | **MoC:** Spatial extent of Reservoirs, Estuaries, Wetlands and Lakes divided by total land area multiplied by 100. |
| **Baseline indicator value: Reservoirs: 0.17%**  **Estuaries: 0.23%**  **Wetlands: 2.17%**  **Lakes: 0.01%** | |
| 0.01%  2.17%  0.23%  Source: South African National Biodiversity Institute and Council for Scientific and Industrial Research (Wetlands, Lakes and Estuaries), HYDSTRA Database, Department of Water and Sanitation (Reservoirs)  Baseline Year = 2016 | |
| South Africa does not have large wide rivers and monitoring the change in their surface area is therefore not relevant.  Surface area is determined based on data from various databases and inventories which have collected data between 2006 -2016. Change will be monitored from 2016 set as the baseline.  The spatial extent of wetlands and of estuaries was determined as per Van Deventer, H.; Smith-Adao, L.; Mbona, N.; Petersen, C.; Skowno, A.; Collins, N.B.; Grenfell, M.; Job, N.; Lötter, M.; Ollis, D.; Scherman, P.; Sieben, E.; Snaddon, K. 2018. South African Inventory of Inland Aquatic Ecosystems. South African National Biodiversity Institute, Pretoria. Report Number: CSIR report number CSIR/NRE/ECOS/IR/2018/0001/A. Although wetlands represent the largest proportion of water related ecosystems in South Africa (at 2.2% of the total land area) it is estimated that the extent of wetlands has decreased by 50% since the early 1900’s.  The spatial extent of reservoirs was determined based on monitored areas for 198 Reservoirs during 2014, 2015 and 2016. This represents 4% of the over 5300 dams in South Africa that have a storage capacity of more than 50 000 cubic metres (m3) and a wall height of more than five (5) metres (m).  Natural lakes (limnetic depressions with a depth of greater than 2 m) are rare in South Africa. Eight lakes have been identified to date, making up less than one percent of South Africa’s land area. The surface area of South Africa’s lakes was captured at desktop level using remote sensing imagery and colour orthophotos from 2012. | |