18 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources

Indica	Indicator type Core indicator Published						
Versio	ning						
First pu	ublication	1/26/2017	Latest update	8/27/20	21		
Area a	Area and sub-area						
Area a	nd sub-area	Impacts	Water resourc	es			
Presen	tation						
Tier 1							
Indicat definit descrip	ion and	Ratio between total freshwater withdrawn by all major sectors and total renewable freshwater resources, after having taken into account environmental water requirements.					
Unit of	measure	%					
Covera	ge	All water abstractions; all freshwater bodies					
Spatial	aggregation	National territory					
Refere	nce period	Calendar year					
Update	e frequency	Annual	Annual				
Base p	eriod	Not applicable					
Disagg	regation (ope	rational indicators					
Disag	gregation (ope	erational indicators	5)		Comments		
Spatia	al		e.g. by river basin				
Temp	oral (by mont	h, by season)					
Other	related -indica	ators (e.g.contextu	al, proxy, other co	ore indicators)		
ID			Subindicator	C C C C C C C C C C C C C C C C C C C		Туре	
40	Water exploi	itation index				Proxy indicator	
43	Water consu	mption index				Contextual indicator	
44	Water abstra	action by individua	economic activit	ies and house	holds	Contextual indicator	
45 Water consumption (total and by different economic activities and households) Core indicator			Core indicator				
Releva	nce						
Policy context and rationale		This is an SDG indicator (goal 6). Climate change can have a significant impact on water stress, such as the change of precipitation patterns, shrinking water assets (groundwater, lakes, glaciers) or the change of water use patterns (more water needed for electricity production, cooling, drinking, irrigation, livestock feeding, etc.).					
Related SDG indicator (SDG I.)		6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources					
Relation w SDG-I.		Identical with SDG indicator					
Related Sendai Framework I.		Not applicable					
Policy	references						

Level of water stress: freshwater withdrawal as a proportion of available freshwater 18 resources

Indicator type Core indicator	Published
Document title	Link
Integrated Water Resources Management (Global Water Partnership,)	http://www.gwp.org/the-challenge/what-is-iwrm/
Transforming our world: the 2030 Agenda for Sustainable Development (General Assembly of the United Nations, 2015)	https://sustainabledevelopment.un.org/post2015/tran sformingourworld

Methodology			
Methodology for indicator calculation	The indicator is computed as the total annual freshwater withdrawn (TWW) by main sectors divided by the difference between the long-term annual total renewable freshwater resources (TRWR) and the environmental water requirements (Env.), multiplied by 100. All variables are expressed in km3/year (10^9 m3/year). Main sectors, as defined by ISIC standards, include for example agriculture; forestry and fishing; manufacturing; electricity industry; and municipalities. This indicator is also known as water withdrawal intensity.		

Methodology references

Document title		Link		
Integrated Monitorin	g Guide for SDG 6 (UN WATER, 2017)	https://www.unwater.org/publications/integrated- monitoring-guide-sdg-6-2/		
Step-by-step monitoring methodology for indicator 6.4.2 (GEMI – Integrated Monitoring Initiative for SDG 6, 2019)		https://www.unwater.org/app/uploads/2020/02/EN- Step-by-step-for-indicator-6-4-2-V20190204_rev.pdf		
freshwater withdraw	icator 6.4.2: Level of water stress: al as a proportion of available freshwater Agriculture Organization of the United	https://unstats.un.org/sdgs/metadata/files/Metadata- 06-04-02.pdf		
Classification syst.	SEEA-CF: Classification of inland water be	odies		
Data sources				
Main source	Official statistics: SEEA and/or SNA			
Explanation	Best option: SEEA water accounts			

Other option(s): Data for this indicator are usually collected by national ministries and institutions having water-related issues in their mandate, such as ministries of water resources, agriculture, or environment. Data are mainly published within national water resources and irrigation master plans, national statistical yearbooks and other reports (such as those from projects, international surveys or results and publications from national and international research centres).

SEEA Accounts that can serve as data sources

SEEA Accour	nt	Comments	
Physical flow	v accounts for water		
Physical asse	et accounts for water resources		
UN-FDES	2.6.1: Water resources		

2.6.1: Water resources

International databases containing this indicator

FAO Aquastat

18 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources

Indicator type	Core indicator	Published	
SDG indicators database		https://unstats.un.org/sdgs/indicators/database/	
Comments			
Comments	The indicator has certain limitations as it cancels out seasonal and sub-national water stress		

The indicator has certain limitations as it cancels out seasonal and sub-national water stress situations. However, longterm trends can be shown; If the hydrological year (instead of the calendar year) is used to compute the indicator this should be indicated in the metadata.