

		<h1>Commercial Fishing</h1> <p>Responsible partner: IGB</p> <p>Actuality: November 2021</p>				
<h2>Interpretation</h2> <p>The indicator describes the commercial fishing yield as an ecosystem service based on data on fish catch as a multi-annual average. It indicates the weight of fish catch in the respective river segment. Fish catch data are usually available for certain fishing sectors. In case there are several river sections with different fish yields, the values have to be weight-averaged for the respective river segment. As an alternative to fish catch, the Total Allowable Catch (TAC) can be used where such data exist. TAC represents the maximum fishing limits for certain fish species during a certain time period, as provided by fisheries management plans.</p>						
Class	Abbr.	Description			Spatial reference	
Provisioning	CF	The indicator assesses the commercial fishing ecosystem service based on data on fish catch (as a multi-annual average) or Total Allowable Catch (TAC) in river fishing sectors.			Floodplain segment or compartment <input checked="" type="checkbox"/> potential floodplain <input checked="" type="checkbox"/> active floodplain <input type="checkbox"/> river	
Variable	Abbr.	Unit	Variable description	Data basis	Comment	
Reference river segment	R_{seg}	m	Determination of the river segment	Floodplain segments		
Fishing section along the river	FS_{seg}	m	Length calculation of the fishing section within the reference river segment	Navigational map or land use map or topographic map		
Fish catch or Total Allowable Catch in the fishing sections	FC_i	t km ⁻¹ year ⁻¹	Statistics on the average annual commercial fishing yield Normative Acts with Total Allowable Catch	Average multi-annual fish caught Total Allowable Catch		
Calculation						
Calculation steps			Indicator			
<div>1. Determination of the reference river segment j (GIS).</div> <div>2. Identification of the fishing sectors i within the reference river segment j from River Km Map data (GIS).</div> <div>3. Intersection of the fishing sectors with data on caught fish (GIS)</div> <div>4. Calculation of the indicator for each reference river segment</div> <div>5. Classification of the resulting yield into 5 classes</div>			<div>Calculation of commercial fishing for river segments (for $j = 1, 2, \dots, n$ river segments):</div> <div>$Ind_{CF}(j) = \sum_{i=1}^n (j) \frac{FS_{seg,i} * FC_i}{R_{seg,j}}$</div> <div>$j = 1, 2, \dots, m$ River segments</div> <div>$i = 1, 2, \dots, n$ Sub-segments (fishing sector) within the reference floodplain area in the respective segment</div>			
Ind _{CF}	> 80%	> 60% - 80%	> 40% - 60%	> 20% - 40%	≤ 20%	0
Evaluation Class	5	4	3	2	1	0
Qualitative Evaluation	Very high catch	Above average catch	Average catch	Below-average catch	Very low catch	No catch