

Basin short profile

Name	Merguellil river	Country	Tunisia																																							
Area	2,000 km ²	Altitude	From 1200 m to the sea																																							
Rainfall/Evapo	<p>rainfall: 400-500 mm in the upper basin 300-400 mm in the median zone <300 mm in the downstream zone semi-arid climate with a very strong inter-annual variability of precipitations. Modal/bimodal: bimodal ETP: from 1193 to 1345 mm/year</p>	<p style="text-align: center;">Rainfall and Evapotranspiration Chebika</p> <table border="1"> <caption>Estimated data from Rainfall and Evapotranspiration Chebika chart</caption> <thead> <tr> <th>Month</th> <th>Rainfall (mm/month)</th> <th>ETP (mm/month)</th> </tr> </thead> <tbody> <tr><td>janv</td><td>10</td><td>50</td></tr> <tr><td>fév</td><td>15</td><td>70</td></tr> <tr><td>mars</td><td>50</td><td>100</td></tr> <tr><td>avril</td><td>45</td><td>130</td></tr> <tr><td>mai</td><td>25</td><td>170</td></tr> <tr><td>juin</td><td>10</td><td>200</td></tr> <tr><td>juil</td><td>5</td><td>220</td></tr> <tr><td>août</td><td>10</td><td>200</td></tr> <tr><td>sept</td><td>15</td><td>150</td></tr> <tr><td>oct</td><td>40</td><td>100</td></tr> <tr><td>nov</td><td>10</td><td>70</td></tr> <tr><td>déc</td><td>40</td><td>50</td></tr> </tbody> </table>		Month	Rainfall (mm/month)	ETP (mm/month)	janv	10	50	fév	15	70	mars	50	100	avril	45	130	mai	25	170	juin	10	200	juil	5	220	août	10	200	sept	15	150	oct	40	100	nov	10	70	déc	40	50
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Land use (1998)	<p>Upper basin: Forest: 19%, cereal 52 %, pasture land 26,5 % Median zone: land-forest 41%, Market gardening 2%, cereal 19%, arboriculture 37% Downstream zone: cereal 24 %, Market gardener 38 % arboriculture 30 %</p>																																									
Irrigation	<p>Total ≈ 1,2050 ha Median zone: 3300 ha, Downstream zone: 16 minor irrigated areas 4570 ha, 1200 private shallow wells : 4180 ha</p>																																									
Water Indicators	<p>Total Runoff : 500x10⁶ m³/year, Renewable water available in Tunisia : 480 l/year/pers Regulated water in El Haouareb dam : 23x10⁶ m³/year in average Water diverted per person: ≈ 100 m³/year /capita In tourist zone : 560 l/day/bed occupied Water use per sector : Agriculture 30 x 10⁶ m³ / year., Human consumption: 20 x10⁶ m³/year</p>																																									
Drinking water	<p>140 drills, important transfer (300 l/s) to the touristic zone of Sahel and town of Kairouan</p>																																									
Main crop(s)/yield	<p>Rainfall Cereal (1,2t/ha);Irrigated cereal (4t/ha); Tomato (35t/ha), water melon (20t/ha); pimento (10t/ha); rainfall olive (1t/ha) ; irrigated olive (2t/ha)</p>																																									
Population	<p>93 % rural and agricultural activity : potential of 1.5 million working days per annum, Percentage of children in full-time education 99 %, Population under 30: 58 % / Population growth 2000-2001: 1.14 % per annum.</p>																																									
Floods	<p>El Haouareb dam built for protection of Kairouan town from floods</p>																																									
Groundwater	<p>Principal water resource due to the intensity of runoff, four water tables upstream with good quality and one large water table downstream , subject to significant overdraft</p>																																									
Environmental and health issues	<p>Erosion in the mountain area, works for conservation of water and soils (more than 200 km² of contour bunds) and construction of lakes and small dams (38 small dams and 5 dams carried out). At present no major problem of salinization of irrigated land (limited to some parts in the lower basin)</p>																																									
Land/labour	<p>Average farm size downstream : 5 to 10 ha , upstream < 5 ha</p>																																									
Land tenure	<p>Most irrigated lands are privately owned, rainfed ag. lands and forest usually belong to the state.</p>	<p>Rural daily wage: 5 DT/day (3 \$)</p>																																								
Water Management	<p>Existing rules for the management of El Haouareb dam fixing down flows in the wadi to recharge groundwater downstream. To day still not applied, due to</p>																																									

	<p>insufficient rainfall</p> <p>For public irrigated schemes, state owner of the works but exploitation and light maintenance entrusted to water users organizations (GIC)</p> <p>There is no basin level organization at the moment</p>
Allocation rules	drinking water considered to be priority,
Hydropower	No production
Legal framework	Water Code of 1975, still in use.
Politics, Civil Society	<p>Free access to agricultural water on the lakes and small dams as in the groundwater table if the depth of the well does not exceed 50 m.</p> <p>Authorization for drillings deeper than 50 m</p>
Future developments	<p>Ensure an adequate revenue to upstream farmers by introducing irrigation</p> <p>Master water demand downstream while preserving current agricultural activities that generate revenues and employment</p> <p>Protect dams against siltation</p>

General basin layout map