



Computation of long-term annual renewable water resources (RWR) by country (in km<sup>3</sup>/year, average)

**Pakistan**

Internal RWR		
Precipitation (mm/year)	[1]	494
Area of the country (1000 ha)	[2]	79 610
Precipitation (km <sup>3</sup> /year)	[3]	393.3 =([1]/1000000)x([2]x10)
Surface water: produced internally	[4]	47.4
Groundwater: produced internally	[5]	55 (a)
Overlap between surface water and groundwater	[6]	47.4 (b)
<b>Total internal renewable water resources</b>	[7]	55 =[4]+[5]-[6]
External RWR		
	Total	Accounted
<u>Surface water</u>		
Surface water entering the country	265.1 (c)	
Inflow not submitted to treaties		[8] 21.5
Inflow submitted to treaties		243.6 (d)
Inflow secured through treaties		[9] 170.3 (e)
Flow in border rivers	0	[10] 0
Accounted inflow		[11] 191.8 =[8]+[9]+[10]
Surface water leaving the country	10.72 (f)	
Outflow not submitted to treaties		10.72
Outflow submitted to treaties		0
Outflow secured through treaties		[12] 0
Total external renewable surface water		[13] 191.8 =[11]-[12]
<u>Groundwater</u>		
Groundwater entering the country	0	[14] 0
Groundwater leaving the country		
<b>Total external renewable water resources</b>		[15] 191.8 =[13]+[14]
Total RWR		
Surface water	[16]	239.2 =[4]+[13]
Groundwater	[17]	55 =[5]+[14]
Overlap between surface water and groundwater	[6]	47.4 (b)
<b>Total renewable water resources</b>	[18]	246.8 =[16]+[17]-[6]
Dependency ratio (%)	[19]	77.71 =100*([11]+[14])/([11]+[14]+[7])

Metadata:

- (a) Other sources give 50 or 61.
- (b) Estimate. Not all of the groundwater (GW) recharge becomes surface water, some gw flows directly into the sea. All surface water generated internally in Pakistan depends on GW, it is drained by the rivers and becomes the base flow of the water courses.
- (c) 5.5 from Afghanistan (Kabul to Indus); 243.58 from India (11.1 Eastern Indus tributaries and 232.48 Western Indus tributaries)
- (d) From India to Indus: 11.1 Eastern tributaries (Rabi, Beas and Sutlej) and 232.48 Western tributaries
- (e) Western tributaries coming from India and reserved under the Indus Water Treaty (1960)
- (f) To Afghanistan (Kunar): 10; to China: 0.718.