



Government of
Khyber Pakhtunkhwa
حکومت خیبر پختونخوا



Irrigation

Provincial Snapshot

Khyber Pakhtunkhwa

Pakistan is the custodian of the **World's largest Irrigation system**. Agriculture contributes about **21% to the country's GDP** and employs **45% of the national labor force**.

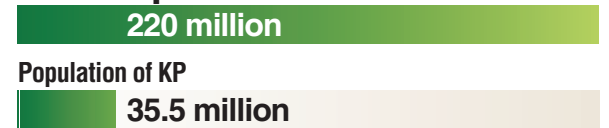
Total annual surface water available in Pakistan



This is an annual surplus of **2.81 MAF** due to non-availability of Irrigation infrastructure. A major irrigation system has not been constructed in the past few decades.

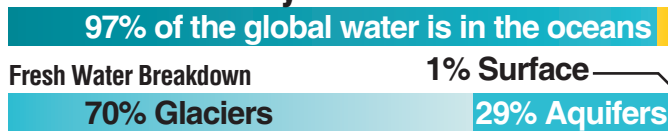
The factors for this drastic decrease are uncontrolled population growth, sharp trends in climate change and wasteful usage of this precious natural, and finite resource.

Total Population of Pakistan



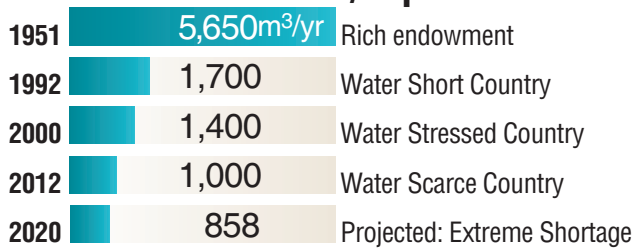
KP has the highest incidence of poverty in Pakistan. Lack of access to water is a major driver of poverty. Improved access could lead to improve peoples' well-being and harmony.

Water Availability - Global Context

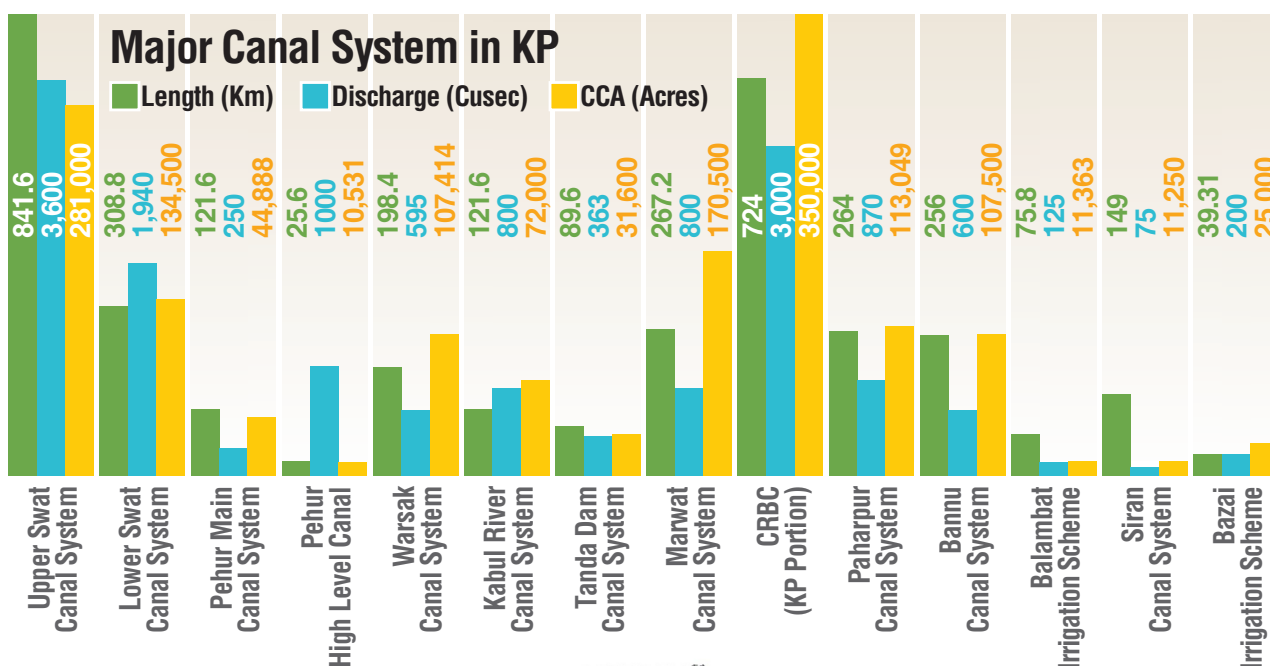
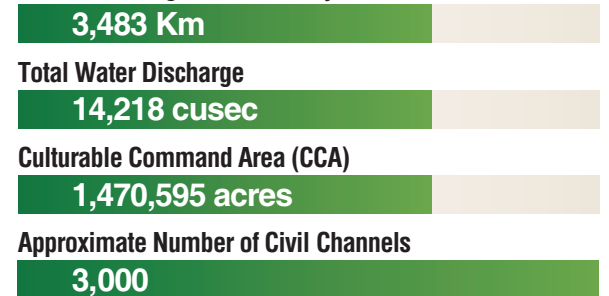


A tiny 1% of the global fresh water makes up all the lakes, rivers and streams. This is a very small percentage available for global human use.

Available Fresh Water/Capita in Pakistan



Combined Length of 4 Canal Systems in KP



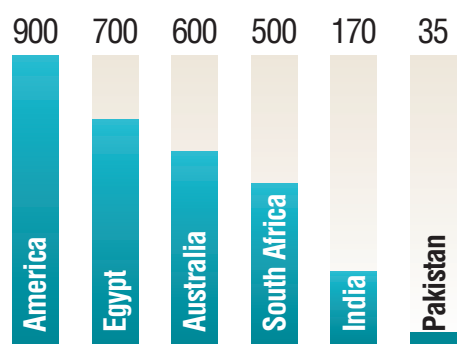
Details of Small Dams in KP

Name of Dam	District	CCA (Acres)	Capacity (AF)
Baran Dam	Bannu	170,500	98,000
Tanda Dam	Kohat	31,600	99,000
Kandar Dam	Kohat	1,400	2,650
Darwazai Dam	Kohat	650	1,500
Khal Dam	Haripur	2,000	830
Chatri Dam	Haripur	600	540
Khanpur Dam	Haripur	3,500	9,300
Gandially Dam	Kohat	13,784	3,000
Chanda Fateh Khan Dam	Kohat	1,593	2,000
Aza Khel Dam	Peshawar	3,340	3,500
Auxiliary Kandar Dam	Kohat	1,333	1,000
Naryab Dam	Hangu	3,120	4,162
Sharki Dam	Karak	9,996	3,000
Changhoz Dam	Karak	11,550	3,300
Barghanatu Dam	Bannu	2,135	1,190
Loughar Dam	Karak	3,195	1,970
Karak Dam	Karak	1,549	1,175
Khairbara Dam	Haripur	489	1,600
Jabba Khattak Dam	Nowshera	205	465
Palai Dam	Charsadda	3,600	5,000
Dalmalak Dam	Kohat	3,500	8,033
Ghole Banda Dam	Karak	1,500	4,531
Mardan Khel Dam	Karak	1,300	2,383
Kundal Dam	Swabi	13,200	10,135
Zamir Gul Dam	Kohat	2,000	5,468
Gul Dheri Dam	Nowshera	1,000	1,602
Ghanghra Dam	Haripur	1,800	999
Kiyala Dam	Abottabad	3,000	876
Gadwalian Dam	Haripur	3,700	1,052
Jalozai Dam	Nowshera	900	999
Shah Kaleem Dam	Nowshera	900	54
TOTAL		298,939	279,314

Khyber Pakhtunkhwa River System

Due to mountainous topography of KP it has a tremendous potential for small and medium dams.

Carry Over Capacity (Days)



Storage is required to absorb 2.81 MAF to utilize additional CCA. This is 32% of the allocated water!



Urgent need to reduce demand for irrigation water by enhanced productivity measures and improved governance.



Climate change needs urgent consideration in planning as it adds further stress to the irrigation system and demand for water.

WHAT NEEDS TO BE DONE



Water Account 1976 - 2016

Western Rivers	138.5 MAF
Eastern Rivers	6.52 MAF
Total Western & Eastern Rivers	145.02 MAF
Provincial Utilization	97.088 MAF
System Losses	18.46 MAF (-ve)
D/S Kotri Barrage	29.48 MAF

P&D Department

Government of
Khyber Pakhtunkhwa

www.pndkp.gov.pk

Financial Assistance

Schweizerische Eidgenossenschaft
Confédération suisse
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Swiss Agency for Development and Cooperation SDC