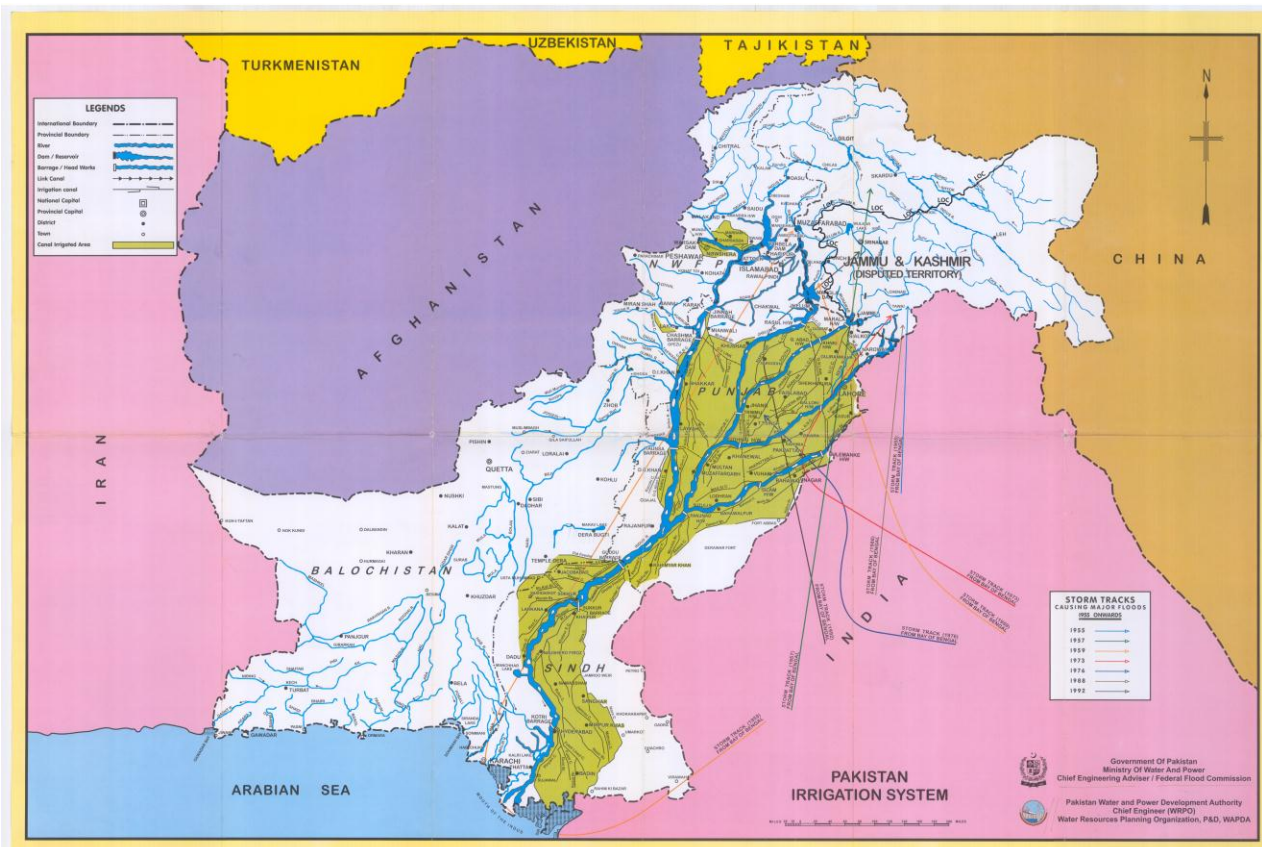




CANALS OF PAKISTAN

Compiled By

PIPS IR Desk



INFOGRAPHIC Canals of Pakistan

KEY FIGURES

Three reservoirs (Tarbela, Mangla, and Chashma) with live storage capacity of 13.44 MAF

Average annual canal withdrawal water - 110 Million Acre Feet (MAF)

53.07 MAF is extracted annually from groundwater

1.285 million tube wells installed across the country

Main canals and distributaries network consist of 64,000 km in length

Graphic data source: Annual Plan 2024-25.

Link Canals in Pakistan¹

1. Marala-Ravi	5. Rasul-Qadirabad	9. Chasma-Jhelum
2. Bamberwala-Ravi-Bedian-Dipalpur	6. Trimmu-Sidhnai	10. Taunsa-Panjnad
3. Balloki-Sulaimanke	7. Sidhnai-Mailsi-Bahawal	11. Upper Chenab
4. Qadria-Balloki	8. Mailsi-Bahawal	12. Upper Jhelum

¹ Compiled from: William J. Young, Arif Anwar, Tousif Bhatti, Edoardo Borgomeo, Stephen Davies, William R. Garthwaite III, Michael Gilmont, Christina Leb, Lucy Lytton, Ian Makin, and Basharat Saeed, "Pakistan getting more from water," (Washington DC, The World Bank, 2019); and Saiyad Ali Naqvi, *Indus Waters and Social Change: the evolution and transition of agrarian society in Pakistan*, (Karachi: Oxford University Press, 2013), 11.

Barrages in Pakistan²

	Barrage	River	Province
1	Jinnah	Indus	Punjab
2	Chashma	Indus	Punjab
3	Taunsa	Indus	Punjab
4	Guddu	Indus	Sindh
5	Sukkur	Indus	Sindh
6	Kotri	Indus	Sindh
7	Rasul	Jhelum	Punjab
8	Marala	Chenab	Punjab
9	Qadira	Chenab	Punjab
10	Trimmu	Chenab	Punjab
11	Panjnad	Chenab	Punjab
12	Balloki	Ravi	Punjab
13	Sidynai	Ravi	Punjab
14	Sulemanki	Sutlej	Punjab
15	Islam	Sutlej	Punjab
16	Khanki	Chenab	Punjab
17	Ferozpur	Sutlej	Punjab
18	Mangla	Jhelum	Punjab
19	Tarbela	Indus	Punjab

Canal Head Withdrawals (Below Rim Stations), (MAF)³

Province	Kharif (Apr-Sep) 2022	Kharif (Apr-Sep) 2023	% Change in Kharif 2023 Over 2022	Rabi (Oct-Mar) 2022-23	Rabi (Oct-Mar) 2023-24	% Change in Rabi 2023-24 Over 2022-23
Punjab	26.14	31.42	20	15.96	16.61	4
Sindh	15.56	28.00	80	12.31	12.41	1
Balochistan	0.80	1.57	96	0.80	0.94	18
Khyber Pakhtunkhwa	0.76	0.86	13	0.32	0.63	101
Total	43.27	61.85	43	29.37	30.59	4

² Compiled from Indus River System Authority; and William J. Young, Arif Anwar, Tousif Bhatti, Edoardo Borgomeo, Stephen Davies, William R. Garthwaite III, Michael Gilmont, Christina Leb, Lucy Lytton, Ian Makin, and Basharat Saeed, "Pakistan getting more from water," (Washington DC, The World Bank, 2019)

³ Source: Pakistan Economic Survey 2023-24.

Area irrigated by different sources (million hectares)

Province	Total	Canals		Tubewells	Wells	Canal Tube-wells	Canal wells	Tanks	Others
		Government	Private						
2015-16									
TOTAL	18.60	5.56	0.40	3.60	0.35	8.15	0.28	0.00	0.26
Punjab	14.86	3.35	--	2.71	0.25	8.15	0.28	--	0.12
Sindh	1.69	1.33	--	0.36	*	--	--	--	--
Khyber Pakhtunkhwa	0.95	0.44	0.29	0.10	0.05	--	--	*	0.07
Balochistan	1.10	0.44	0.11	0.43	0.05	--	--	--	0.07
2016-17									
TOTAL	18.22	5.53	0.36	3.62	0.40	7.85	0.29	0.00	0.17
Punjab	14.48	3.31	--	2.67	0.29	7.85	0.29	--	0.07
Sindh	1.69	1.33	--	0.36	*	--	--	--	--
Khyber Pakhtunkhwa	0.95	0.45	0.27	0.11	0.05	--	--	*	0.07
Balochistan	1.10	0.44	0.09	0.48	0.06	--	--	--	0.03
2017-18									
TOTAL	18.63	5.62	0.38	3.60	0.44	8.15	0.27	0.00	0.17
Punjab	14.89	3.40	--	2.67	0.33	8.15	0.27	--	0.07
Sindh	1.69	1.33	--	0.36	*	--	--	--	--
Khyber Pakhtunkhwa	0.95	0.45	0.28	0.10	0.05	--	--	--	0.07
Balochistan	1.10	0.44	0.10	0.47	0.06	--	--	--	0.03
2018-19									
TOTAL	18.33	5.33	0.32	3.76	0.29	8.19	0.27	0.02	0.15
Punjab	14.73	3.17	--	2.87	0.17	8.19	0.27	--	0.06
Sindh	1.65	1.29	--	0.36	*	--	--	--	--
Khyber Pakhtunkhwa	0.94	0.45	0.26	0.09	0.05	--	--	0.02	0.07
Balochistan	1.01	0.42	0.06	0.44	0.07	--	--	--	0.02
2019-20									
TOTAL	19.34	5.70	0.33	4.06	0.27	8.47	0.24	0.02	0.25
Punjab	15.47	3.31	--	3.15	0.16	8.47	0.24	0.00	0.14
Sindh	1.65	1.29	--	0.36	*	--	--	--	--
Khyber Pakhtunkhwa	0.94	0.44	0.26	0.10	0.05	--	--	0.02	0.07
Balochistan	1.28	0.66	0.07	0.45	0.06	--	--	--	0.04
2020-21									
TOTAL	19.47	5.39	0.38	4.07	0.42	8.71	0.23	0.00	0.27
Punjab	15.61	3.27	0.00	3.09	0.18	8.71	0.23	0.00	0.13
Sindh	1.63	1.16	0.00	0.36	0.11	--	--	--	--
Khyber Pakhtunkhwa	1.03	0.46	0.29	0.10	0.08	--	--	0.00	0.10
Balochistan	1.20	0.50	0.09	0.52	0.05	--	--	0.00	0.04
2021-22									
TOTAL	19.42	5.52	0.36	4.02	0.26	8.71	0.23	0.00	0.32
Punjab (R)	15.61	3.27	0.00	3.09	0.18	8.71	0.23	0.00	0.13
Sindh	1.66	1.30	0.00	0.36	0.00	--	--	--	--
Khyber Pakhtunkhwa	0.97	0.46	0.28	0.10	0.04	--	--	0.00	0.09
Balochistan	1.18	0.49	0.08	0.47	0.04	--	--	0.00	0.10

* = Nominal

Source: Provincial Agriculture Departments.

R= Repeated

Source: Pakistan Bureau of Statistics

Water Situation in Pakistan

(as of 18 March 2025, source: IRSA)

INDUS @ TARBELA

LEVEL	=	1402.99	
DEAD LEVEL	=	1402.00	
MEAN INFLOW	=	18400	Cs
MEAN OUTFLOW	=	20000	Cs

KALABAGH:

U/S DISCHARGE	=	17454	Cs
D/S DISCHARGE	=	14454	Cs
Thal	=	3000	Cs

TAUNSA:

U/S DISCHARGE	=	26930	Cs
D/S DISCHARGE	=	26430	Cs
T-P Link	=	0	Cs
Muzafarghar Canal	=	0	Cs
Dera Ghazi Khan Canal	=	0	Cs

SUKKUR:

U/S DISCHARGE	=	16130	Cs
D/S DISCHARGE	=	6280	Cs
* Canal W/dls	=	9850	Cs

JHELUM @ MANGLA:

LEVEL	=	1050.00	
DEAD LEVEL	=	1050.00	
MEAN INFLOW	=	26056	Cs
MEAN OUTFLOW	=	26198	Cs

PANJNAD

U/S DISCHARGE	=	3279	Cs
D/S DISCHARGE	=	0	Cs

KABUL @ NOWSHERA

MEAN DISCHARGE	=	10800	Cs
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CHASHMA:

LEVEL	=	638.80	
DEAD LEVEL	=	638.15	
MEAN INFLOW	=	29592	Cs
MEAN OUTFLOW	=	27000	Cs
C-J Link	=	0	Cs
CRBC	=	3600	Cs

GUDDU:

U/S DISCHARGE	=	22498	Cs
D/S DISCHARGE	=	17984	Cs
* Canal W/dls	=	4514	Cs

KOTRI:

U/S DISCHARGE	=	5164	Cs
D/S DISCHARGE	=	204	Cs
Canal W/dls	=	4960	Cs

CHENAB @ MARALA:

MEAN U/S DISCHARGE	=	15141	Cs
MEAN D/S DISCHARGE	=	10441	Cs

**RIM STATION INFLOWS

TOTAL = 70397 Cs

RIM STATION OUTFLOWS

TOTAL = 72139 Cs

IRSA RELEASES

	Today	Last Year
Date	18.03.2025	18.03.2024
Punjab:	35000 Cs	46200 Cs
Sindh:	22300 Cs	35000 Cs
KP:	2700 Cs	3100 Cs
Balochistan:	3000 Cs	3000 Cs

Today's rim station inflows are 70397 Cs against yesterday's of 69145 Cs i.e. 1252 Cs (2%) More

Today's rim station outflows are 72139 Cs against yesterday's of 71487 Cs i.e. 652 Cs (1%) More

Province	Shares	IRSA Releases	% Excess(+) / Short(-) wrt Shares
1	2	3	4
Punjab (Indus + Jhelum Chenab) Zones	59.2	35.0	-41
Sindh (Chashma d/s)	37.7	22.3	-41
***Balochistan (Chashma d/s)	3.0	3.0	0
***Khyber Pakhtunkhwa (CRBC)	2.7	2.7	0
Total	102.6	63.0	-39

* Includes Balochistan Canals

** Rim Stations are Indus @ Tarbela, Jhelum @ Mangla, Kabul @ Nowshera, Chenab @ Marala

*** Khyber Pakhtunkhwa & Balochistan Provinces are exempted from shortages.

Canals in Khyber Pakhtunkhwa

	Canal	Discharge (Cusecs)
1.	Upper Swat Canal System	3,600
2.	Lower Swat Canal System	1,940
3.	Pehur Main Canal System	250
4.	Pehur High Level Canal System	1000
5.	Warsak Canal System	595
6.	Kabul River Canal System	800
7.	Tanda Dam Canal System	363
8.	Marwat Canal System	800
9.	CRBC Canal System	3,000
10.	Gomal Zam Dam Irrigation System	848
11.	Paharpur Canal System	870
12.	Bannu Canal System	600
13.	Balambat Irrigation System	125
14.	Siran Canal System	75
15.	Nipki Khel Irrigation Scheme Swat	150
	Total	15,016

Data as of 18 March 2025

Source: <https://www.irrigation.gkp.pk/infra.php>.

Canals in Sindh

	Canal	Withdrawals
1.	Begari Sindh Feeder	0
2.	Desert Pat Feeder	1993
3.	Ghotki Feeder	2521
4.	Rainy Canal	0
5.	North Western Canal	1150
6.	Rice Canal	0
7.	Dadu Canal	430
8.	Nara Canal	3500
9.	Khairpur East	540
10.	Rohri Canal	3500
11.	Khairpur West	730
12.	Kalri Baghar Feeder	2000
13.	Akram Wah	800
14.	Pinyari (Old Fulleli)	980
15.	New Fulleli	1180
	Total	19324

Data as of 18 March 2025

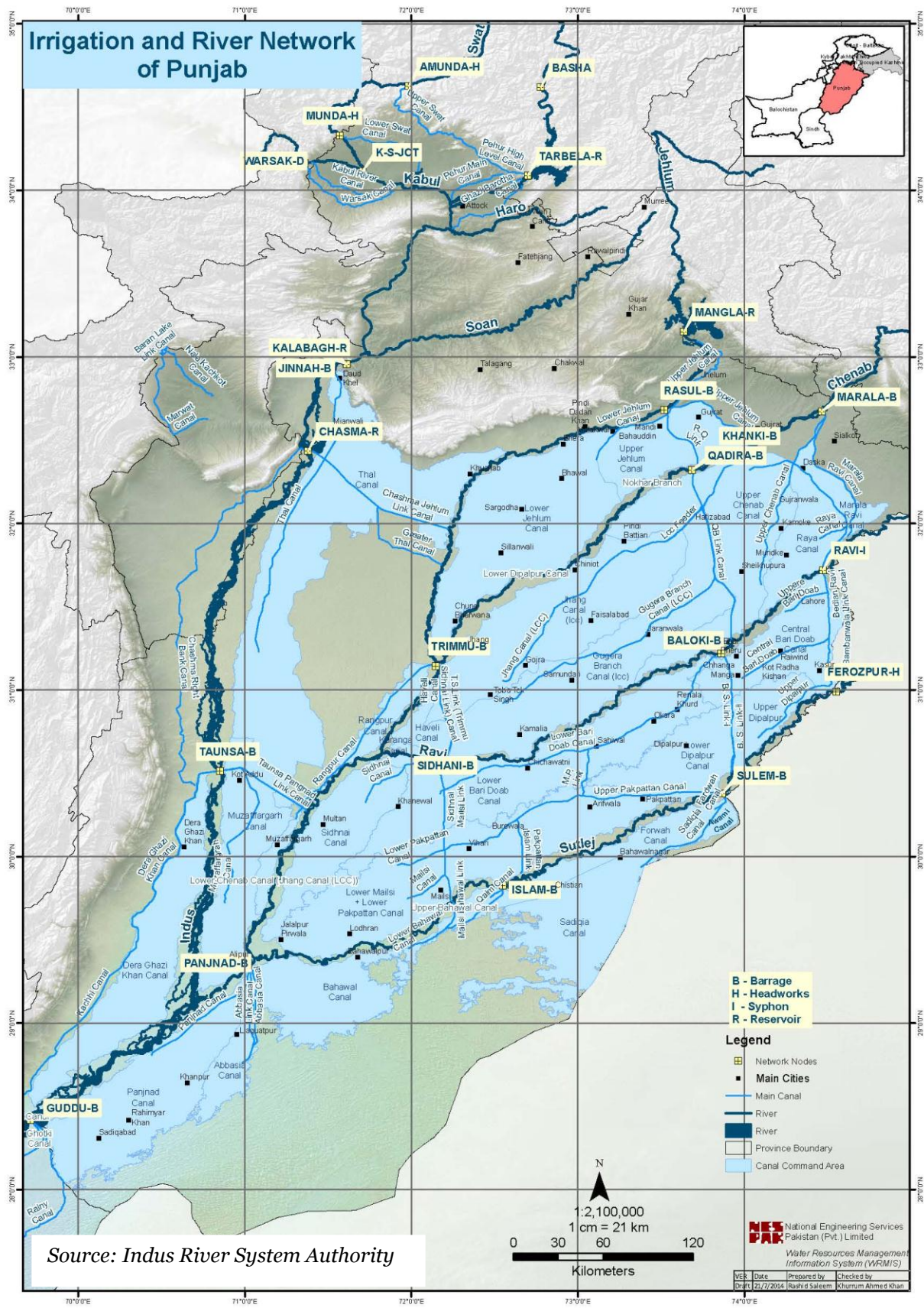
Source: <https://irrigation.sindh.gov.pk/Flows/IndusRiver>.

Canals in Punjab

	Canal	Discharge (Cusecs)
1.	Abbassia Canal	294
2.	Abbassia Link Canal	1306
3.	B.S. Link-II	0
4.	B.S.Link	6500
5.	Bahawal Canal	0
6.	BRBD Link Canal	3000
7.	C.J.Link	250
8.	CRBC-III	3600
9.	D.G Khan Canal	0
10.	Eastern Sadiqia Canal	4150
11.	Fordwah Canal	0
12.	Haveli Main Line	3100
13.	LCC Feeder	3450
14.	Lower Bari Doab Canal	5500
15.	Lower Chenab Canal	5126
16.	Lower Depalpur Canal	0
17.	M.P. Link	0
18.	Mailsi Canal	0
19.	Main Line Upper (UCC)	4700
20.	Main Line, L.J.C.	3000
21.	MR Link Canal	0
22.	Muzaffargarh Canal	0
23.	Pakpattan Canal Lower	800
24.	Pakpattan Canal Upper	2927
25.	Pakpattan Islam Link	1000
26.	Punjnad Main Line	0
27.	Qaim Canal	0
28.	QB Link canal	11878
29.	R.Q. Link.	14940
30.	Rangpur canal	0
31.	S.M.B.L (Sidhnai Mailsi Bahawal Link) Canal	2000
32.	Sidhnai Canal	1600
33.	T.S.Link (Trimmu Sidhnai Link) Canal	6360
34.	Taunsa Punjnad Link Canal	0
35.	Thal Canal Main Line Upper	3000
36.	Upper Depalpur Canal	0
37.	Upper Jhelum Canal	6100

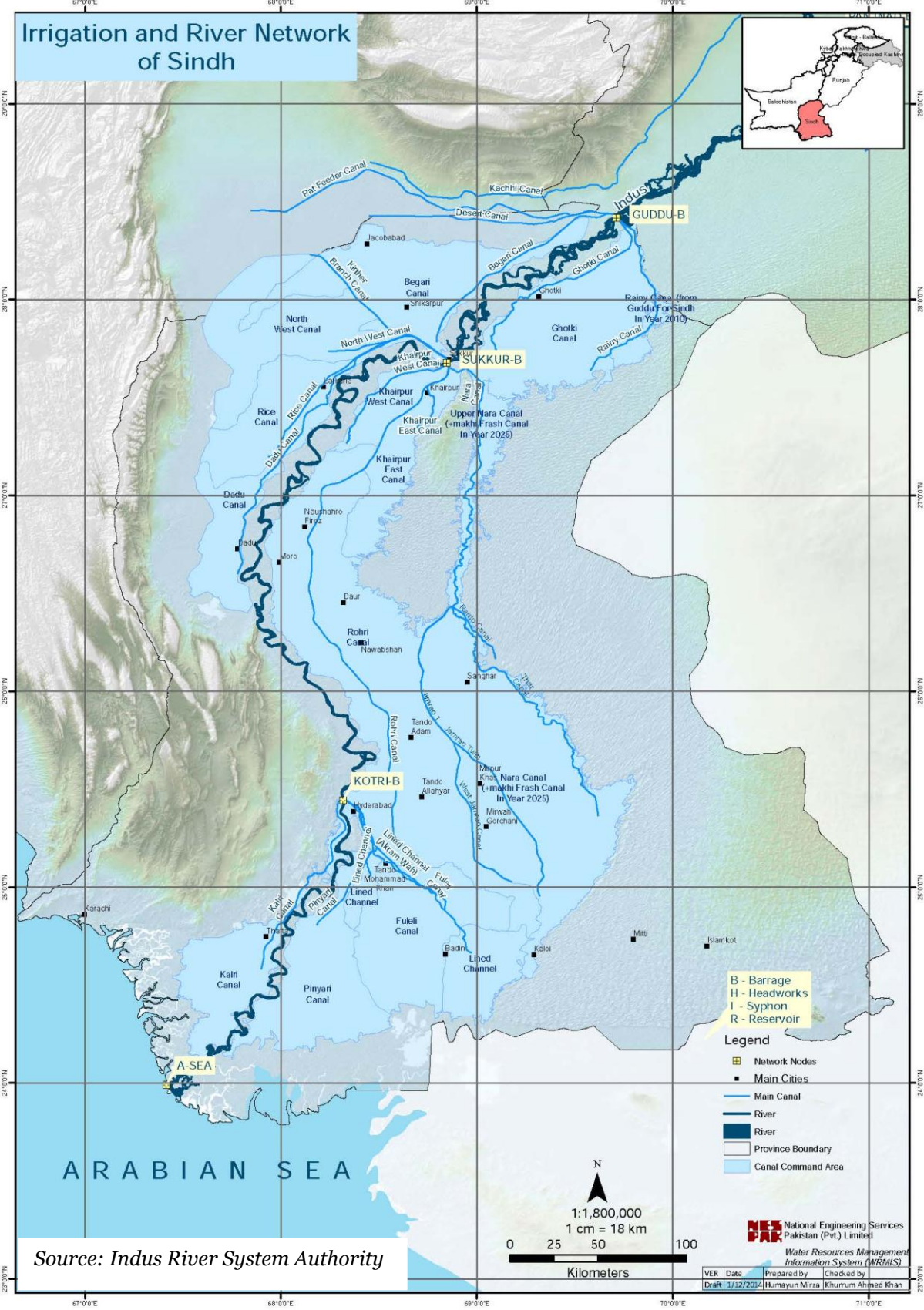
Data as of 18 March 2025

Source: <https://irrigation.punjab.gov.pk/>.

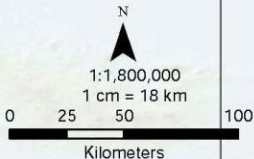


Source: Indus River System Authority

Irrigation and River Network of Sindh



Source: Indus River System Authority



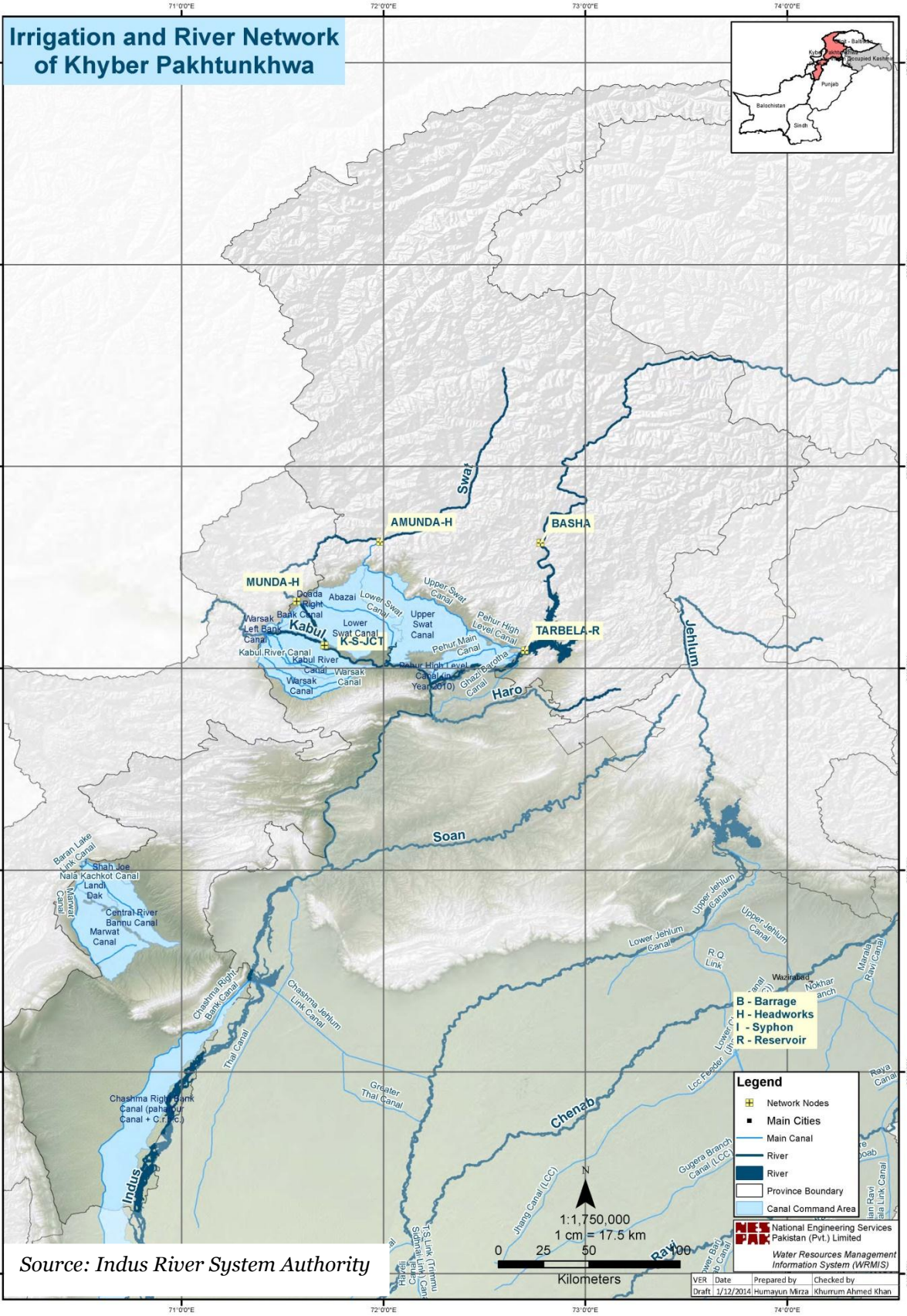
B - Barrage
 H - Headworks
 I - Syphon
 R - Reservoir

Legend
 Network Nodes
 Main Cities
 Main Canal
 River
 River
 Province Boundary
 Canal Command Area

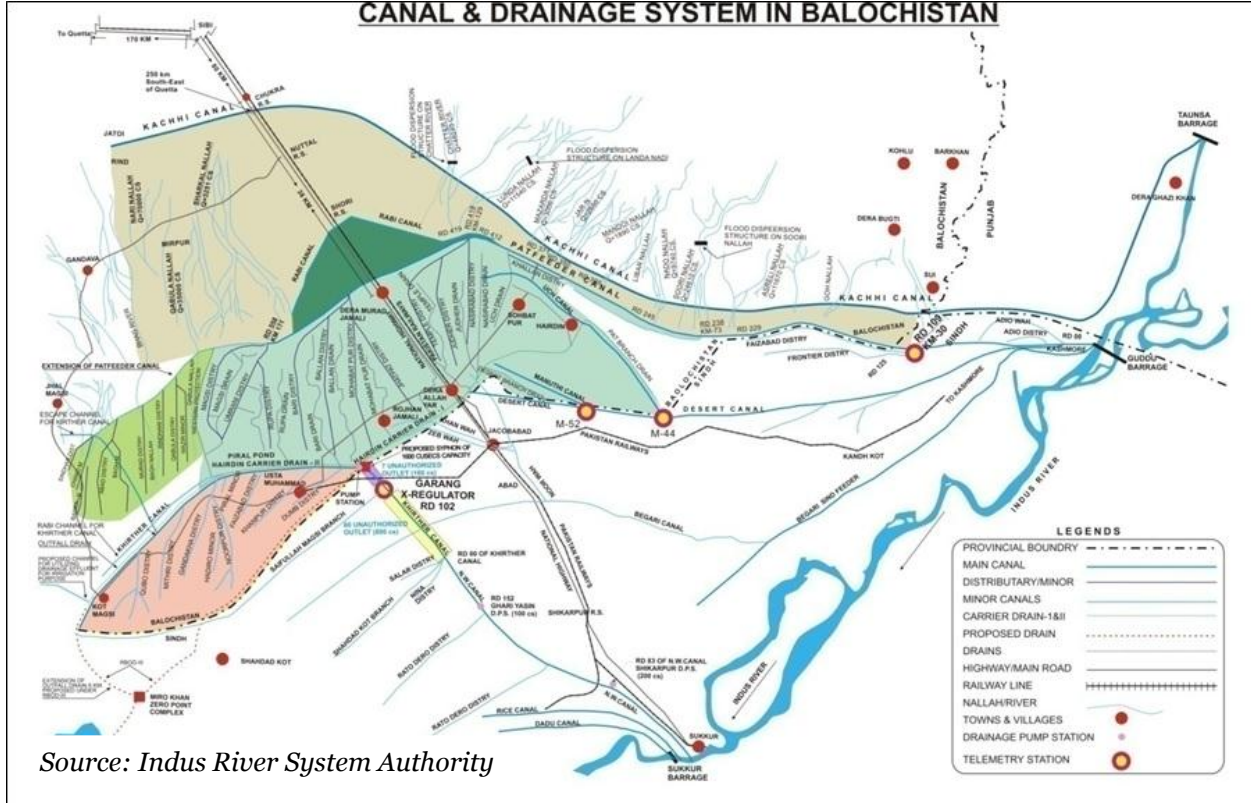
NES National Engineering Services
 Pakistan (Pvt.) Limited

Water Resources Management
 Information System (WRMIS)

VER Date Prepared by Checked by
 Draft 17/12/2024 Humayun Mirza Khuram Ahmed Khan



CANAL & DRAINAGE SYSTEM IN BALOCHISTAN



Source: Indus River System Authority

