

Supplementary Materials

Table S1. Total energy consumptions of 12 selected regions in northern slope of Tianshan mountain (Total consumptions / 10^4 t)

	1990	2000	2010	2020
Coal/ 10^4 t	1839.12	555.6851	1420.4646	2252.36
Cleaned coal/ 10^4 t	58.90	58.0819	261.8878	296.73
Coke	3.11	57.3109	327.4116	251.67
Gasoline/ 10^4 t	4.62	0.1978	0.0113	642.84
Kerosene/ 10^4 t	73.07	1.7864	1.3002	12468.18
Diesel oil/ 10^4 t	88.35	2.7535	4.3648	28265.62
Fuel oil/ 10^4 t	2.47	36.9521	24.6571	497.18
Liquefied petroleum gas/ 10^4 t	5.35	38.713	0.0505	183.61
Natural gas/ 10^4 m ³	49.452	46.283	83.114	216.472

Table S2. Per capita Gross Domestic Product value of 12 selected regions in northern slope of Tianshan mountain in 1990, 2000, 2010 and 2020 (10³ CNY)

	1990	2000	2010	2020
Urumqi	4538.403	13533.28	53680.26	82321.81
Karamay	9978.482	51402.61	251984.8	179903.9
Dushanzi	11554.46	8624.931	10423.04	11680.9
Manas	3419.719	15682.76	57891.43	82827.77
Hutubi	1614.645	7356.46	36631.5	88293.95
Usu	3024.022	12303.53	42238.38	89212.23
Kuitun	1470.992	3909.138	23537.04	67403.81
Miquan	1747.175	7855.383	2269.949	13345.74
Shihezi	1178.465	4297.262	21620.68	52543.74
Fukang	2641.627	10247.27	48163.78	124787.8
Changji	2185.815	7297.131	49182.3	101492
Shawan	3922.436	17193.04	50240.77	6490.407

Table S3. Population density of 12 selected regions in northern slope of Tianshan mountain in 1990, 2000, 2010 and 2020 (10⁴ person/km²)

	1990	2000	2010	2020
Urumqi	0.008827293	0.013861638	0.016762462	0.027252865
Karamay	0.002365507	0.00311545	0.003262075	0.005696788
Dushanzi	0.007483316	0.013381868	0.018200522	0.021581656
Manas	0.001509263	0.001777443	0.001834897	0.002491333
Hutubi	0.00180476	0.002238237	0.002315033	0.00194777
Usu	0.001156263	0.001331111	0.001592323	0.001618198
Kuitun	0.000203008	0.000257104	0.000277054	0.000198668
Miquan	0.004386222	0.005311585	0.004930417	0.00029348
Shihezi	0.115701396	0.128300648	0.135756838	0.147367048
Fukang	0.001453233	0.001792543	0.001963686	0.001982432
Changji	0.003470244	0.005160717	0.004839363	0.005039562
Shawan	0.001304753	0.001488674	0.001704718	0.001743372