

Analysis of the scale effect and temporal stability of groundwater in a large irrigation district in Northwest China

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Supplementary Materials

Table S1. Statistical characteristic value of Hetao Irrigation District from 1991 to 2015.

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Table S1. Statistical characteristic value of Hetao Irrigation District from 1991 to 2015.

Hetao Irrigation District					
Date	Maximum(m)	Minimum(m)	Median(m)	Average(m)	CV(%)
1991	3.06	0.85	1.65	1.709	21.70%
1992	2.95	0.85	1.68	1.7	23.20%
1993	3.51	0.69	1.64	1.676	24.40%
1994	3.36	0.73	1.58	1.622	25.50%
1995	3.32	0.69	1.54	1.566	25.40%
1996	3.03	0.68	1.56	1.604	25.40%
1997	2.60	0.73	1.60	1.618	23.20%
1998	2.66	0.73	1.66	1.682	23.90%
1999	2.93	0.72	1.79	1.805	24.70%
2000	3.26	0.79	1.81	1.836	25.50%
2001	3.92	0.70	1.73	1.786	25.80%
2002	3.77	0.88	1.70	1.767	27.80%
2003	4.01	0.90	1.80	1.889	28.10%
2004	4.03	0.66	1.67	1.831	32.60%
2005	4.20	0.89	1.82	1.962	31.30%
2006	5.71	0.77	1.79	1.972	36.90%
2007	6.07	0.74	1.65	1.838	41.80%

2008	6.46	0.79	1.61	1.789	42.90%
2009	7.22	0.79	1.71	1.898	43.10%
2010	7.57	0.86	1.80	1.981	44.90%
2011	8.01	0.84	1.85	2.104	45.40%
2012	7.73	0.75	1.70	1.906	49.30%
2013	8.10	0.69	1.78	1.988	47.70%
2014	8.52	0.53	1.85	2.027	50.00%
2015	8.67	0.36	1.94	2.144	49.60%

Table S2. Statistical characteristic value of Yichang Irrigation Subdistrict from 1991 to 2015.

Yichang Irrigation Subdistrict					
Date	Maximum(m)	Minimum(m)	Median(m)	Average(m)	CV(%)
1991	2.43	0.85	1.60	1.657	22.20%
1992	2.95	0.85	1.62	1.641	25.00%
1993	2.41	0.86	1.59	1.608	23.60%
1994	2.41	0.75	1.54	1.582	26.10%
1995	2.47	0.81	1.47	1.525	25.70%
1996	2.45	0.89	1.59	1.628	22.60%
1997	2.59	0.97	1.60	1.624	22.60%
1998	2.58	0.90	1.70	1.708	23.90%
1999	2.79	0.72	1.78	1.79	26.70%
2000	2.81	0.88	1.80	1.84	24.70%
2001	3.92	0.97	1.76	1.814	25.90%
2002	3.77	1.02	1.80	1.813	24.90%
2003	4.01	1.10	1.81	1.878	26.90%
2004	4.03	0.99	1.63	1.769	31.00%
2005	4.17	1.07	1.81	1.915	29.40%
2006	4.42	1.03	1.79	1.94	32.50%
2007	4.40	0.98	1.61	1.764	36.70%
2008	4.09	0.87	1.48	1.626	38.80%
2009	3.90	0.98	1.64	1.788	31.70%
2010	4.14	0.97	1.73	1.883	31.50%
2011	4.39	1.10	1.84	2.004	31.20%
2012	4.17	0.98	1.64	1.801	33.20%
2013	4.19	0.95	1.75	1.879	32.20%
2014	4.68	0.53	1.84	1.946	34.20%
2015	5.01	0.45	1.97	2.102	36.50%

Table S3. Statistical characteristic value of Yihe Main Canal from 1991 to 2015.

Yihe Main Canal					
Date	Maximum(m)	Minimum(m)	Median(m)	Average(m)	CV(%)
1991	2.17	1.09	1.44	1.497	20.40%

1992	1.99	1.16	1.48	1.495	18.80%
1993	1.92	1.11	1.52	1.451	20.20%
1994	2.17	1.11	1.44	1.477	21.60%
1995	2.00	1.05	1.41	1.441	17.50%
1996	1.96	1.21	1.47	1.481	16.20%
1997	2.06	1.13	1.59	1.556	18.80%
1998	2.35	1.16	1.55	1.636	19.60%
1999	2.49	1.13	1.72	1.727	18.30%
2000	2.57	1.03	1.81	1.876	19.70%
2001	2.48	1.37	1.69	1.957	33.20%
2002	2.44	1.22	1.77	1.943	31.50%
2003	2.42	1.17	1.79	1.948	34.50%
2004	2.30	1.05	1.64	1.868	37.40%
2005	2.67	1.23	1.95	2.083	33.80%
2006	2.96	1.12	1.98	2.151	38.30%
2007	2.92	1.08	1.77	2.02	42.90%
2008	2.67	1.04	1.57	1.779	44.60%
2009	2.56	1.16	1.83	1.949	34.90%
2010	2.88	1.12	1.84	2.041	35.50%
2011	2.81	1.23	1.89	2.125	34.70%
2012	2.19	1.05	1.57	1.826	39.50%
2013	2.34	1.25	1.82	1.898	37.60%
2014	2.55	1.19	1.86	1.979	42.70%
2015	2.89	0.99	1.84	2.115	45.30%

Table S4. Statistical characteristic value of Branch Canal from 1991 to 2015.

Date	Branch Canal				
	Maximum(m)	Minimum(m)	Median(m)	Average(m)	CV (%)
1991	2.06	1.37	1.51	1.575	17.60%
1992	1.89	1.21	1.49	1.518	17.40%
1993	1.76	1.15	1.70	1.558	16.70%
1994	1.88	1.41	1.44	1.548	12.80%
1995	1.85	1.28	1.48	1.525	14.30%
1996	1.82	1.26	1.62	1.552	17.60%
1997	1.82	1.15	1.71	1.581	18.10%
1998	2.05	1.42	1.72	1.752	15.90%
1999	1.93	1.74	1.85	1.854	4.30%
2000	2.27	1.81	1.95	1.979	8.70%
2001	2.19	1.53	1.69	1.763	15.30%
2002	2.06	1.46	1.66	1.74	13.60%
2003	1.99	1.51	1.71	1.774	11.50%
2004	2.14	1.50	2.00	1.844	17.10%
2005	2.47	1.68	2.02	2.077	16.90%
2006	2.84	1.80	2.11	2.261	21.40%

2007	2.76	1.44	1.80	2.099	29.00%
2008	2.67	1.39	1.82	1.865	28.20%
2009	2.43	1.52	1.83	1.934	19.10%
2010	2.77	1.64	2.16	2.098	22.10%
2011	2.74	1.67	2.12	2.126	21.90%
2012	2.12	1.37	1.59	1.723	18.40%
2013	2.23	1.45	1.83	1.781	17.00%
2014	2.08	1.19	1.94	1.745	22.50%
2015	2.30	0.99	1.72	1.664	32.00%
