Table S1. The comparison of evaluation statistics for ERA5 and ERA-Interim precipitation in three time periods.

Time period	Dataset	CC	SD (mm/yr)	NSD	RMSE (mm/yr)	Mean (mm/yr)
1986-2016	Observed	1	82	1	0	377
	ERA5	0.8	71	0.9	99	459
	ERA-Interim	0.8	100	1.2	167	532
1986-2006	Observed	1	90	1	0	388
	ERA5	0.8	83	0.9	89	461
	ERA-Interim	0.9	110	1.2	147	526
2006-2016	Observed	1	63	1	0	356
	ERA5	0.5	46	0.7	114	456
	ERA-Interim	0.5	80	1.3	199	542

Table S2. The comparison of evaluation statistics for ERA5 and ERA-Interim temperature in three time periods.

Time period	Dataset	CC	SD (°C)	NSD	RMSE (°C)	Mean (°C)
1986-2016	Observed	1	0.8	1	0	12
	ERA5	0.7	0.9	1.1	0.9	12.6
	ERA-Interim	0.8	0.9	1.1	0.9	12.6
1986-2006	Observed	1	0.8	1	0	11.8
	ERA5	0.7	0.9	1	0.9	12.3
	ERA-Interim	0.7	0.9	1.1	0.8	12.2
2006-2016	Observed	1	0.7	1	0	12.3
	ERA5	0.9	0.6	0.9	0.9	13.2
	ERA-Interim	0.9	0.6	0.9	0.9	13.2

Table S3. Calculated statistics between GlobWat estimated and observed discharge in three time periods.

Time Period	Dataset	Eref Metod	CC	SD (mm/yr)	NSD	RMSE (mm/yr)	NSE	Mean (mm/yr)
1986-2016	Observed		1	73	1	0	1	105
	ERA5	De Bruin	0.7	66	0.9	56	0.3	126
		ERA5 Eref	0.8	81	1.1	83	0.0	167
		Langbein	0.7	82	1.1	100	-0.5	187
	ERA-Interim	De Bruin	0.7	105	1.4	119	-0.3	200
		Langbein	0.7	118	1.6	184	-1.4	271
1986-2006	Observed		1	73	1	0	1	137
	ERA5	De Bruin	0.8	66	0.9	51	0.5	140
		ERA5 Eref	0.8	81	1.1	75	0.3	186
		Langbein	0.8	82	1.1	89	0	205
	ERA-Interim	De Bruin	0.8	105	1.4	102	0.2	213
		Langbein	0.9	118	1.6	168	-0.8	288
2006-2016	Observed		1	25	1	0	1	58
	ERA5	De Bruin	0.4	34	1.4	65	-2.7	114
		ERA5 Eref	0.3	39	1.6	98	-5.2	147
		Langbein	0.3	90	3.6	120	-7.7	171
	ERA-Interim	De Bruin	0.3	62	2.5	149	-4.8	194
		Langbein	0.3	72	2.9	217	-8	263

Table S4. Major Dams of Urmia Lake Basin [1].

Dam	Sub-basin	River	Regulated Volume (MCM)	Year of completion
Bukan	Zarineh Rud	Zarineh Rud	285	2006
Shahid Madani	Aji Chai	Aji Chai	300	2005
Qalae	Sufi Chai	Qalae Chai	53.4	2006
Zola	Zola Chai	Zola Chai	132.5	2006
Gogerdchi (Saroq)	Zarineh Rud	Saroq	42	2007
Cheragh Vays	Zarineh Rud	Saqez Chai	74.86	2007
Chirabad	Gudar Chai	Kani rash	255.6	2007
Shakaryazi	Derk Chai	Derk Chai	31	2008
Nazlo	Nazlo Chai	Nazlo	273	2009
Semineh Rud	Semineh Rud	Semineh Rud	269	N.A.
Ajorlo	Zarineh Rud	Ajorlo	105.7	N.A.

References

1. Hashemi, M. An Independent Review : The Status of Water Resources in the Lake Urmia Basin; Conservation of Iranian Wetlands Project: Tehran, Iran, 2008.