Supplemental data for

"Rainfall Dependence of Springs in the Midwestern Himalayan Hills of Uttarakhand" by Avinash Agarwal, N.K. Bhatnaga, R.K. Nema, and Nitin K. Agrawal, published in *Mountain Research and Development* 32(4), 2012. (See <u>http://www.bioone.org/toc/mred/32/4</u>)

Spring	Data collection			Elevation	Lag & correlation		Lag & correlation			
number ¹⁾	Start	End	Years	(m)	Days	Corr. r ²	Months	Corr. r ²	Remarks	
1	1 Jul 1999	30 Jun 2010	11	1432	13	.09 to .31	1	.28 to .32	Continuous flow	
2	1 Jul 1999	30 Jun 2010	11	1413	13	.07 to .10	1	.14 to .23	Continuous flow	
3	1 Jul 1999	30 Jun 2010	11	1387	27	.06 to .13	1	.10 to .37	Continuous flow	
4A	1 Jul 1999	30 Jun 2010	11	1169	13	.13 to .23	1	.39 to .57	Continuous flow	
4B	1 Jul 1999	30 Jun 2010	11	1220	25	.13 to .21	1	.37 to .51	Continuous flow	
5	1 Jul 1999	30 Jun 2010	11	1415	27	.12 to .20	1	.32 to .52	Flow interrupted once	
6	1 Jul 1999	30 Jun 2010	11	1460	29	.03 to .09	1	.07 to .26	Continuous flow	
7	1 Jul 1999	30 Jun 2010	11	1569	28	.06 to .18	1	.21 to .47	Flow interrupted once	
8	1 Jul 1999	30 Jun 2010	11	1543	30	.09 to .19	1	.24 to .49	Flow interrupted twice	
9	1 Jul 1999	30 Jun 2010	11	1431	29	.08 to .16	1	.20 to .45	Continuous flow	
10A	1 Jul 1999	30 Jun 2010	11	1608	17	.10 to .21	1	.31 to .53	Continuous flow	
11	1 Jul 1999	30 Jun 2010	11	1506	21	.11 to .21	1	.32 to .52	Flow interrupted 7 times (road construction in 2007–2008)	
12	1 Jul 2000	30 Jun 2002	2	1558	30	.10 to .25	NA	NA	Dead (construction and development)	
13	1 Jul 2003	30 Jun 2010	7	1115	28	.14 to .23	1	.33 to .57	Continuous flow	
14	1 Jul 2000	30 Jun 2006	6	1681	16	.11 to .20	1	.34 to .41	Dead (construction and development)	
15	1 Jul 2000	30 Jun 2010	10	1742	14	.11 to .21	1	.33 to .51	Flow interrupted once	
16	1 Jul 2000	30 Jun 2010	10	1661	14	.12 to .16	1	.31 to .40	Flow interrupted once	
17	1 Jul 2005	30 Jun 2010	5	1694	11	.17 to .23	1	.40 to .46	Flow interrupted once	
18	1 Jul 2003	30 Jun 2009	6	1779	9	.14 to .21	1	.40 to .41	Frequently dried up (construction and development)	
19	1 Jul 2005	30 Jun 2007	2	1601	NA	NA	NA	NA	Frequently dried up (construction and development)	
20	1 Jul 2005	30 Jun 2006	1	1634	NA	NA	NA	NA	Frequently dried up (construction and development)	

TABLE S1. Duration of data collection, elevation, and time lags between rainfall and spring flow for the springs in Chandrabhaga watershed.

¹⁾ Numbering of springs corresponds to the numbering in Table 1 in the article.

NA = not applicable

Spring	Data collection			Elevation	Lag & correlation		Lag & correlation		
number ¹⁾	Start	End	Years	(m)	Days	Corr. r ²	Months	Corr. r ²	Remarks
1	1 Jul 1999	30 Jun 2010	11	1239	22	.02 to .13	2	.19 to .34	Continuous flow
2	1 Jul 1999	30 Jun 2010	11	1285	12	.07 to .11	2	.20 to .34	Continuous flow
3	1 Jul 1999	30 Jun 2010	11	1259	3	.11 to .16	1	.32 to .33	Continuous flow
4A	1 Jul 1999	30 Jun 2010	11	1232	24	.10 to .18	1	.38 to .52	Continuous flow
4B	1 Apr 2005	30 Jun 2010	5	1239	22	.10 to .17	0	.45 to .45	Continuous flow
5	1 Jan 2003	30 Jun 2010	7	1227	9	.05 to .12	3	.17 to .35	Continuous flow
6	1 Jul 1999	30 Jun 2010	11	1184	12	.09 to .20	2	.44 to .54	Flow interrupted 4 times
7	1 Jul 1999	30 Jun 2010	10	1113	10	.06 to .22	1	.42 to .46	Continuous flow
8	1 Jan 2003	30 Jun 2010	7	1148	6	.09 to .22	0	.52 to .52	Flow interrupted once
9	1 Jul 1999	30 Jun 2010	11	1204	18	.08 to .20	1	.42 to .51	Flow interrupted once
10	1 Jul 1999	25 Jun 2004	3	1144	25	.08 to .19	1	.21 to .43	Dead (construction and development)
11	1 Jun 2000	30 Jun 2010	10	932	29	.01 to .08	1	.05 to .23	Flow interrupted twice
13	1 Nov 1999	30 Jun 2010	10	1191	5	.10 to .13	1	.20 to .30	Flow interrupted 3 times
15	1 Nov 1999	30 Jun 2010	10	1148	1	.10 to .14	0	.18 to .18	Continuous flow
16	1 Jun 2002	30 Jun 2010	8	1112	17	.06 to .08	0	.21 to .21	Flow interrupted once
17	1 Nov 1999	20 Mar 2008	8	1112	25	.06 to .15	1	.22 to .53	Continuous flow
20	1 Nov 1999	30 Jun 2010	10	1256	25	.12 to .13	1	.32 to .34	Continuous flow
27	1 Jan 2001	13 Feb 2006	4	1267	28	.09 to .15	1	.21 to .39	Continuous flow
28	1 Jul 2001	30 Jun 2010	9	1267	25	.13 to .20	1	.44 to .64	Flow interrupted twice
29	1 Oct 2005	30 Jun 2010	4	930	23	.03 to .19	2	.20 to .50	Flow interrupted once
30	1 Oct 2005	30 Jun 2010	4	NA	15	.07 to .16	2	.28 to .65	Flow interrupted 4 times

TABLE S2. Duration of data collection, elevation, and time lags between rainfall and spring flow for the springs in Danda watershed.

¹⁾ Numbering of springs corresponds to the numbering in Table 2 in the article. NA = not applicable