



Supplement of

Time-series analysis of the long-term hydrologic impacts of afforestation in the Águeda watershed of North-Central Portugal

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Annual: All Available Months										Wet Season (Oct - Jan)										Transitional Season (Jun - Sep)										Dry Season (Jun - Sep)									
# Years	Test Period	Lower Bound	T.S. Trend	Upper Bound	M.K. Sig.	# Years	Test Period	Lower Bound	T.S. Trend	Upper Bound	M.K. Sig.	# Years	Test Period	Lower Bound	T.S. Trend	Upper Bound	M.K. Sig.	# Years	Test Period	Lower Bound	T.S. Trend	Upper Bound	M.K. Sig.																
75	1936 to 2010	-11.4	-5.4	0.2	0.151	75	1936 to 2010	-5.3	-1.9	1.6	0.113	75	1936 to 2010	-8.0	-4.8	-1.5	0.025	75	1936 to 2010	-1.1	0.0	0.9	0.970																
50	1936 to 1985	-9.7	2.2	12.9	0.464	50	1936 to 1985	-10.0	-2.0	5.7	0.381	50	1936 to 1985	-7.1	0.0	8.5	0.660	50	1936 to 1985	-1.7	0.3	2.1	0.685																
50	1961 to 2010	-24.4	-13.8	-3.5	0.002	50	1961 to 2010	-7.9	-0.7	6.7	0.951	50	1961 to 2010	-13.8	-7.9	-2.9	0.000	50	1961 to 2010	-2.7	-0.8	1.2	0.423																
35	1936 to 1970	-16.9	4.6	22.1	0.374	35	1936 to 1970	-21.4	-9.8	2.3	0.858	35	1936 to 1970	-11.2	2.6	19.3	0.406	35	1936 to 1970	-2.0	1.1	3.8	0.286																
35	1956 to 1990	-31.3	-13.1	7.2	0.202	35	1956 to 1990	-11.6	2.7	15.1	0.764	35	1956 to 1990	-17.8	-6.4	1.3	0.091	35	1956 to 1990	-2.4	1.1	0.9	0.299																
35	1976 to 2010	-35.7	-16.6	3.1	0.015	35	1976 to 2010	-16.2	-3.5	9.5	0.436	35	1976 to 2010	-19.4	-11.3	-3.0	0.000	35	1976 to 2010	-3.1	0.5	3.8	0.836																
25	1936 to 1960	-49.5	-11.7	21.9	0.823	25	1936 to 1960	-28.1	-10.3	14.3	0.858	25	1936 to 1960	-25.1	-1.3	27.3	0.602	25	1936 to 1960	-4.5	1.4	6.8	0.472																
25	1946 to 1970	-13.7	18.7	50.9	0.118	25	1946 to 1970	-31.6	-14.4	6.8	0.711	25	1946 to 1970	-17.1	7.9	26.7	0.568	25	1946 to 1970	-2.2	2.6	7.2	0.130																
25	1956 to 1980	-40.6	-6.8	29.5	0.980	25	1956 to 1980	-24.1	2.7	29.9	0.308	25	1956 to 1980	-20.3	-3.8	18.6	0.747	25	1956 to 1980	-10.2	-5.2	1.1	0.333																
25	1966 to 1990	-53.1	-17.7	13.3	0.535	25	1966 to 1990	-25.6	6.7	35.9	0.221	25	1966 to 1990	-30.8	-11.2	7.5	0.503	25	1966 to 1990	-6.7	-1.9	2.9	0.535																
25	1976 to 2000	-53.6	-20.9	20.0	0.107	25	1976 to 2000	-28.7	-1.5	16.2	1.000	25	1976 to 2000	-30.8	-14.3	0.8	0.003	25	1976 to 2000	-4.1	1.2	7.2	0.602																
25	1986 to 2010	-34.9	-7.1	25.1	0.602	25	1986 to 2010	-22.5	-3.7	16.3	0.754	25	1986 to 2010	-15.5	-7.7	2.4	0.078	25	1986 to 2010	-6.9	-1.5	4.2	0.637																
Annual: All Available Months										Wet Season (Oct - Jan)										Transitional Season (Jun - Sep)										Dry Season (Jun - Sep)									
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75	1936 to 2010	-5.2	-1.7	2.1	0.870	75	1936 to 2010	-2.1	-0.1	2.0	0.713	75	1936 to 2010	-4.2	-1.8	0.3	0.451	75	1936 to 2010	NA	NA	NA	NA																
50	1936 to 1985	-3.3	3.6	9.5	0.278	50	1936 to 1985	-2.8	0.9	4.7	0.347	50	1936 to 1985	-2.7	1.7	5.4	0.406	50	1936 to 1985	NA	NA	NA	NA																
50	1961 to 2010	-14.5	-8.0	-1.8	0.062	50	1961 to 2010	-7.4	-2.4	1.4	0.298	50	1961 to 2010	-7.7	-4.9	-1.6	0.014	50	1961 to 2010	NA	NA	NA	NA																
35	1936 to 1970	-9.0	3.4	16.0	0.390	35	1936 to 1970	-7.6	0.3	8.1	0.635	35	1936 to 1970	-6.3	-3.3	1.8	0.212	35	1936 to 1970	NA	NA	NA	NA																
35	1956 to 1990	-16.6	-4.8	5.3	0.408	35	1956 to 1990	-9.6	-1.8	5.2	0.459	35	1956 to 1990	-13.4	-6.7	-1.5	0.353	35	1956 to 1990	NA	NA	NA	NA																
35	1976 to 2010	-24.2	-12.8	-0.3	0.295	35	1976 to 2010	-11.1	-2.2	3.6	0.159	35	1976 to 2010	-19.3	-0.8	13.0	0.778	35	1976 to 2010	NA	NA	NA	NA																
25	1936 to 1960	-28.4	-10.0	6.9	0.735	25	1936 to 1960	-18.0	-9.4	-0.5	0.244	25	1936 to 1960	-2.0	10.6	22.2	0.107	25	1936 to 1960	NA	NA	NA	NA																
25	1946 to 1970	-2.4	17.8	40.1	0.071	25	1946 to 1970	-15.1	-0.3	12.1	0.941	25	1946 to 1970	-4.9	2.9	15.9	0.612	25	1946 to 1970	NA	NA	NA	NA																
25	1956 to 1980	-13.8	6.5	24.7	0.955	25	1956 to 1980	-17.8	-4.0	6.5	0.602	25	1956 to 1980	-19.2	-6.7	2.2	0.652	25	1956 to 1980	NA	NA	NA	NA																
25	1966 to 1990	-30.6	-8.1	7.9	0.955	25	1966 to 1990	-14.8	-1.1	12.2	0.428	25	1966 to 1990	-25.0	-11.2	0.1	0.430	25	1966 to 1990	NA	NA	NA	NA																
25	1976 to 2000	-41.0	-15.7	5.7	0.463	25	1976 to 2000	-11.1	1.6	14.1	0.675	25	1976 to 2000	-9.3	-3.1	3.4	1.000	25	1976 to 2000	NA	NA	NA	NA																
25	1986 to 2010	-16.0	0.0	15.2	0.944	25	1986 to 2010	-5.6	0.27	9.86	0.649	25	1986 to 2010	-1.23	-0.22	0.87	0.780	25	1986 to 2010	NA	NA	NA	NA																
Annual: All Available Months										Wet Season (Oct - Jan)										Transitional Season (Jun - Sep)										Dry Season (Jun - Sep)									
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75	1936 to 2010	-0.08%	0.03%	0.13%	0.336	75	1936 to 2010	-0.03%	0.08%	0.19%	0.121	75	1936 to 2010	-0.13%	0.00%	0.18%	0.684	75	1936 to 2010	NA	NA	NA	NA																
50	1936 to 1985	0.00%	0.15%	0.30%	0.180	50	1936 to 1985	-0.04%	0.12%	0.33%	0.152	50	1936 to 1985	-0.05%	0.17%	0.42%	0.348	50	1936 to 1985	NA	NA	NA	NA																
50	1961 to 2010	-0.38%	-0.17%	0.00%	0.274	50	1961 to 2010	-0.32%	-0.05%	0.17%	0.731	50	1961 to 2010	-0.50%	-0.21%	0.00%	0.081	50	1961 to 2010	NA	NA	NA	NA																
35	1936 to 1970	-0.14%	0.18%	0.50%	0.224	35	1936 to 1970	-0.24%	0.13%	0.50%	0.306	35	1936 to 1970	-0.15%	0.23%	0.73%	0.189	35	1936 to 1970	NA	NA	NA	NA																
35	1956 to 1990	-0.38%	-0.11%	0.18%	0.289	35	1956 to 1990	-0.41%	-0.05%	0.33%	0.614	35	1956 to 1990	-0.33%	0.00%	0.30%	0.721	35	1956 to 1990	NA	NA	NA	NA																
35	1976 to 2010	-0.71%	-0.24%	0.17%	0.594	35	1976 to 2010	-0.46%	-0.09%	0.36%	0.368	35	1976 to 2010	-0.95%	-0.38%	0.25%	0.465	35	1976 to 2010	NA	NA	NA	NA																
25	1936 to 1960	-0.86%	-0.37%	0.13%	0.910	25	1936 to 1960	-0.92%	-0.40%	0.11%	0.399	25	1936 to 1960	-0.13%	0.77%	1.26%	0.021	25	1936 to 1960	NA	NA	NA	NA																
25	1946 to 1970	0.27%	0.78%	1.17%	0.015	25	1946 to 1970	-0.6	6.6	12.3	0.097	25	1946 to 1970	-1.6	4.3	11.2	0.063	25	1946 to 1970	NA	NA	NA	NA																
25	1956 to 1980	-0.87%	0.44%	13.1	1.000	25	1956 to 1980	-8.6	-0.7	6.7	0.901	25	1956 to 1980	-3.1	2.5	10.0	0.573	25	1956 to 1980	NA	NA	NA	NA																
25	1966 to 1990	-19.0	-8.2	0.8	0.499	25	1966 to 1990	-11.6	-3.3	2.0	0.224	25	1966 to 1990	-12.3	-5.3	0.2	0.652	25	1966 to 1990	NA	NA	NA	NA																
25	1976 to 2000	-22.2	-9.7	4.0	0.398	25	1976 to 2000	-8.0	-0.5	7.2	0.526	25	1976 to 2000	-14.2	-5.5	0.9	0.573	25	1976 to 2000	NA	NA	NA	NA																
25	1986 to 2010	-10.4	-1.0	9.0	0.889	25	1986 to 2010	-5.8	0.4	8.0	0.675	25	1986 to 2010	-6.0	-1.2	2.4	0.889	25	1986 to 2010	NA	NA	NA	NA																
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75	1936 to 2010	-0.09%	-0.03%	0.00%	0.896	75	1936 to 2010	-0.07%	0.00%	0.08%	0.725	75	1936 to 2010	-0.20%	-0.09%	0.00%	0.071	75	1936 to 2010	NA	NA	NA	NA																
50	1936 to 1985	-0.02%	0.03%	0.11%	0.379	50	1936 to 1985	0.00%	0.08%	0.18%	0.119	50	1936 to 1985	-0.23%	-0.07%	0.07%	0.233	50	1936 to 1985	NA	NA	NA	NA																
50	1961 to 2010	-0.33%	-0.20%	-0.09%	0.106	50	1961 to 2010	-0.31%																															