

Table 1. Basic characteristics of the studied catchments

No.	River	Water gauging station	Surface area [km ²]	Density of river network [km·km ⁻²]	Bołdaków index of soil permeability [%]	Elevation [m a.s.l.]		Catchment gradient [°]	Land use [%]			
						MIN	MAX		Arable land	Meadows	Forests	Other
1	Sola	Żywiec	782.3	0.79	77.8	344	1534	12.0	6.2	12.6	50.0	31.2
2	Skawa	Sucha Beskidzka	465.8	0.84	78.7	327	1723	10.2	21.4	3.1	50.8	24.7
3	Raba	Stróża	643.8	0.76	78.0	299	1314	10.7	22.9	4.2	45.7	27.2
4	Dunajec	Nowy Targ–Kowaniec	686.4	0.63	81.8	574	2499	9.6	7.2	32.3	32.7	27.8
5	Biała	Koszyce Wielkie	954.3	0.67	83.7	191	997	6.7	31.9	2.5	29.4	36.2
6	Wisłoka	Żółków	581.6	0.67	84.5	227	846	7.6	23.9	8.8	57.2	10.1
7	Wisłok	Rzeszów	2079.6	0.64	81.3	193	848	5.4	36.9	5.2	28.4	29.5
8	San	Zatwarnica	493.9	0.57	88.1	491	1346	10.1	0.0	14.9	75.8	9.3

Table 2. Simulations used in the study

GCM model	RCM model	Abbreviation*
CNRM-CERFACS-CNRM-CM5	CLMcom-CCLM4-8-17	CNRM
ICHEC-EC-EARTH	KNMI-RACMO22E	KNMI
ICHEC-EC-EARTH	CLMcom-CCLM4-8-17	CCLM
MPI-M-MPI-ESM-LR	CLMcom-CCLM4-8-17	MPI
ICHEC-EC-EARTH	DMI-HIRHAM5	DMI

* abbreviation created for the purpose of this study

Table 3. Pearson's correlation coefficient for selected extremes distinguished by percentiles: precipitation ($RR > 90p$, $RR > 95p$) and discharge ($Q > 90p$, $Q > 95p$) in the examined catchments

Sola	$RR > 90p$	$RR > 95p$	Skawa	$RR > 90p$	$RR > 95p$
$Q > 90p$	0.71	0.55	$Q > 90p$	0.72	0.70
$Q > 95p$	0.70	0.64	$Q > 95p$	0.73	0.72
Raba	$RR > 90p$	$RR > 95p$	Dunajec	$RR > 90p$	$RR > 95p$
$Q > 90p$	0.73	0.72	$Q > 90p$	0.69	0.71
$Q > 95p$	0.66	0.73	$Q > 95p$	0.68	0.74
Biała	$RR > 90p$	$RR > 95p$	Wisłoka	$RR > 90p$	$RR > 95p$
$Q > 90p$	0.66	0.63	$Q > 90p$	0.69	0.62
$Q > 95p$	0.69	0.69	$Q > 95p$	0.69	0.64
Wisłok	$RR > 90p$	$RR > 95p$	San	$RR > 90p$	$RR > 95p$
$Q > 90p$	0.77	0.77	$Q > 90p$	0.67	0.69
$Q > 95p$	0.77	0.79	$Q > 95p$	0.70	0.74

statistical significance at $\alpha=0.05$