Table 2) sedimentation and some of the sub-basins characteristics

Sub-basin	Area (km^2)	Circumference (km)	Medium slop (%)	Annual sedimentation average (ton/year)
Sub-basin 1	23.78	41.42	36.52	11.36
Sub-basin2	9.78	21.81	32.57	4.15
Sub-basin3	4.74	17.46	25.01	1.15
Sub-basin4	3.55	11.64	30.62	1.87
Sub-basin5	3.79	11.30	20.02	0.63
Sub-basin6	1.34	6.83	22.72	0.12
Sub-basin7	2.28	11.47	34.57	0.56
Sub-basin8	1.00	7.00	34.66	0.10
Sub-basin9	19.32	35.09	25.11	5.6
Sub-basin10	4.09	17.57	20.03	2.3
Sub-basin11	4.18	12.20	16.61	1.96
Sub-basin12	8.63	27.18	16.84	3.13
Sub-basin13	10.97	22.66	24.94	3.65
Sub-basin14	2.34	11.47	21.84	1.01
Sub-basin15	10.17	20.45	15.30	4.11
Sub-basin16	3.35	12.48	20.37	1.98
Sub-basin17	3.24	13.11	16.68	1.21
Sub-basin18	1.75	9.55	11.19	0.47
Sub-basin19	8.51	18.02	17.65	4.69
Sub-basin20	1.26	9.09	7.85	0.14
Sub-basin21	11.64	25.09	21.69	4.32
Sub-basin22	0.75	6.83	8.17	0.23
Sub-basin23	8.36	26.50	8.11	4.86
Sub-basin24	4.75	22.83	5.03	2.25
Sub-basin25	6.73	17.23	10.42	3.15
Sub-basin26	7.08	20.57	7.45	3.69
Sub-basin27	2.44	9.77	5.50	0.35

Table 3) elevation parameters and the studied sub-basins shape

Sub-basin	Min height (m)	Average height (m)	Max height (m)	Sub-basins' length (km)	Form factor coefficient	Form factor	Compactness coefficient	Elongation ratio	Roundness ratio	Lemnisk ratio
Sub-basin 1	2586	3431	4276	35.26	0.136	7.352	2.410	0.155	0.171	13.240
Sub-basin2	2604	3144.5	3685	13.72	0.205	4.878	1.966	0.257	0.258	4.816
Sub-basin3	2595	3139	3683	8.82	0.155	6.541	2.261	0.278	0.195	4.107
Sub-basin4	2692	3074.5	3456	4.962	0.262	3.516	1.741	0.428	0.329	1.732
Sub-basin5	2690	2928.5	3167	6.91	0.296	3.3783	1.636	0.317	0.373	3.154
Sub-basin6	2615	2737.5	2860	1.88	0.287	3.484	1.663	0.692	0.361	0.663
Sub-basin7	2349	2628	2907	2.75	0.173	5.780	2.138	0.62	0.218	0.826
Sub-basin8	2342	2532	2722	1.31	0.203	4.926	1.975	0.855	0.256	0.435
Sub-basin9	2017	2846	3675	36.08	0.156	6.410	2.251	0.137	0.197	16.848
Sub-basin10	2238	2572	2906	7.12	0.132	7.575	2.447	0.32	0.166	3.093
Sub-basin11	1991	2116	2241	6.71	0.280	3.571	1.683	0.343	0.352	2.699
Sub-basin12	1736	1986	2236	15.48	0.116	8.620	2.608	0.214	0.146	6.942
Sub-basin13	2119	2458.5	2798	16.46	0.213	4.694	1.929	0.227	0.268	6.172
Sub-basin14	1846	2010	2174	4.67	0.178	5.617	2.112	0.369	0.223	2.327
Sub-basin15	2092	2360	2628	18.45	0.243	4.115	1.808	0.195	0.305	8.368
Sub-basin16	2107	2327.5	2638	6.28	0.215	4.651	1.922	0.329	0.27	2.940
Sub-basin17	1830	2031	2232	4.52	0.189	5.291	2.051	0.449	0.237	1.572
Sub-basin18	1727	1796.5	1866	3.38	0.192	5.208	2.031	0.441	0.242	1.631
Sub-basin19	1724	2077	2430	16.69	0.262	3.816	1.741	0.197	0.329	8.181
Sub-basin20	1706	1776	1846	2.67	0.153	6.535	2.277	0.475	0.192	1.409
Sub-basin21	1738	2205.5	2673	21.28	0.185	5.405	2.073	0.18	0.232	9.726
Sub-basin22	1708	1765.5	1823	1.69	0.16	6.25	2.225	0.578	0.202	0.959
Sub-basin23	1648	1801	1954	17.36	0.119	8.403	2.583	0.188	0.149	9.0133
Sub-basin24	1603	1722	1841	10.77	0.091	10.989	2.953	0.228	0.114	6.108
Sub-basin25	1648	1826	2004	13.07	0.226	4.424	1.873	0.223	0.284	6.345
Sub-basin26	1605	1679.5	1754	12.75	0.167	5.988	2.1794	0.235	0.21	5.7392
Sub-basin27	1575	1619	1663	4.196	0.256	3.906	1.762	0.42	0.321	1.7986

Table 4) geomorphic parameters of the studied sub-basins' reliefs

Sub-basin	Relief ratio	Branch ratio	Drainage density (km/km^2)	Roughness number	Total length of the streams (km)	Basins' roughness (m)	Length of equivalent triangle	Width of equivalent triangle
Sub-basin 1	47.32	0.395	1.501	2583.00	35.26	1690	63.256	0.371
Sub-basin2	78.73	0.293	1.403	1516.87	13.72	1081	26.883	0.363
Sub-basin3	123.25	0.295	1.861	2024.88	8.82	1088	24.600	0.190
Sub-basin4	154.17	0.221	1.396	1068.68	4.96	765	12.562	0.282
Sub-basin5	68.95	0.150	1.824	870.07	6.91	477	11.416	0.332
Sub-basin6	129.73	0.085	1.406	344.55	1.88	245	7.018	0.191
Sub-basin7	202.90	0.191	1.201	670.40	2.75	558	15.468	0.147
Sub-basin8	287.97	0.139	1.319	501.25	1.31	380	8.683	0.115
Sub-basin9	45.94	0.451	1.867	3096.24	36.08	1658	49.933	0.387
Sub-basin10	93.78	0.229	1.737	1160.51	7.12	668	27.240	0.150
Sub-basin11	37.20	0.111	1.606	401.74	6.71	250	12.711	0.328
Sub-basin12	32.28	0.223	1.792	896.47	15.48	500	45.053	0.191
Sub-basin13	41.25	0.242	1.499	1018.42	16.46	679	27.372	0.400
Sub-basin14	70.22	0.150	1.992	653.61	4.67	328	15.205	0.154
Sub-basin15	29.04	0.203	1.813	972.09	18.45	536	23.000	0.442
Sub-basin16	84.51	0.201	1.871	993.97	6.28	531	14.992	0.223
Sub-basin17	88.92	0.180	1.391	559.25	4.52	402	16.838	0.192
Sub-basin18	41.03	0.074	1.926	267.84	3.38	139	12.187	0.144
Sub-basin19	42.28	0.290	1.959	1383.72	16.69	706	19.455	0.437
Sub-basin20	52.35	0.075	2.107	295.08	2.67	140	13.048	0.097
Sub-basin21	43.91	0.349	1.827	1708.63	21.28	935	32.588	0.357
Sub-basin22	67.77	0.063	2.260	260.00	1.69	115	9.590	0.078
Sub-basin23	17.61	0.156	2.075	635.17	17.36	306	43.214	0.193
Sub-basin24	22.09	0.129	2.267	539.77	10.77	238	42.658	0.111
Sub-basin25	27.23	0.177	1.941	691.25	13.07	356	20.167	0.333
Sub-basin26	11.68	0.084	1.800	268.22	12.75	149	28.208	0.251
Sub-basin27	20.96	0.052	1.714	150.86	4.19	88	10.684	0.229