

Year	Annual World Coal Production (million tonnes)	Calculated overburden/waste for coal (million tonnes)	Calculated World coal plus overburden/waste surface and underground (million tonnes)	Calculated World mineral and metal production (excl. oil/gas) incl. waste/overburden (million tonnes)	World cement manufacture (million tonnes) 1925 is estimated	Calculated World aggregates production [based on ratio to cement] (million tonnes)	Calculated world cement and aggregate production (million tonnes)	Calculated World civil engineering earthwork [assumed to be twice the aggregate and cement totals] (million tonnes)	Approximate World dredging tonnages (see supplemental information) (million tonnes)	Total mineral extraction, overburden/waste, cement, aggregates, civil engineering and dredging (million tonnes)	Calculated total annual volume of anthropogenic sediment flux (km3)
1925	1 372	589	1 960	571	61	341	401	803	338	4 073	2
1926	1 362	603	1 965	585	62	353	415	830	378	4 173	2
1927	1 473	670	2 144	663	68	385	453	905	405	4 569	2
1928	1 463	684	2 147	688	72	412	484	967	486	4 772	2
1929	1 555	752	2 307	746	75	429	504	1 007	540	5 104	2
1930	1 412	709	2 121	692	72	416	488	976	594	4 871	2
1931	1 260	656	1 916	643	62	359	421	841	648	4 469	2
1932	1 128	623	1 750	586	49	286	335	670	759	4 102	2
1933	1 168	684	1 853	619	48	281	329	658	810	4 269	2
1934	1 280	795	2 075	704	58	341	399	799	1 078	5 055	2
1935	1 321	870	2 191	740	65	386	451	903	918	5 203	2
1936	1 443	1 009	2 451	822	63	374	436	873	918	5 501	3
1937	1 534	1 137	2 672	890	83	496	579	1 158	1 353	6 651	3
1938	1 443	1 134	2 576	866	86	520	606	1 211	1 057	6 316	3
1939	1 575	1 311	2 886	961	93	567	660	1 321	827	6 654	3
1940	1 687	1 539	3 226	1 063	81	498	579	1 158	1 167	7 193	3
1941	1 773	1 710	3 483	1 152	88	546	634	1 267	864	7 401	4
1942	1 784	1 818	3 602	1 178	81	506	587	1 173	731	7 270	3
1943	1 798	1 975	3 773	1 223	71	452	523	1 047	702	7 268	3
1944	1 727	2 037	3 764	1 209	55	354	409	818	739	6 939	3
1945	1 345	1 718	3 063	969	50	324	374	747	702	5 855	3
1946	1 468	2 025	3 493	1 101	73	479	551	1 102	667	6 914	3
1947	1 648	2 421	4 069	1 269	86	571	656	1 313	675	7 982	4
1948	1 695	2 646	4 341	1 339	102	689	791	1 581	661	8 712	4
1949	1 697	2 841	4 538	1 391	115	788	903	1 806	675	9 312	4
1950	1 821	3 226	5 047	1 555	133	924	1 057	2 115	702	10 476	5
1951	1 933	3 617	5 550	1 720	149	1 043	1 192	2 384	729	11 575	6
1952	1 930	3 853	5 784	1 776	161	1 135	1 296	2 592	756	12 204	6
1953	1 961	4 166	6 127	1 883	178	1 273	1 451	2 901	783	13 145	6
1954	1 971	4 402	6 373	1 971	195	1 413	1 608	3 216	810	13 978	7
1955	2 134	5 002	7 135	2 219	217	1 597	1 814	3 629	837	15 635	7
1956	2 256	5 602	7 858	2 436	235	1 754	1 989	3 978	864	17 125	8
1957	2 337	6 076	8 413	2 641	247	1 864	2 111	4 222	864	18 251	9
1958	2 439	6 629	9 068	2 877	263	2 008	2 271	4 541	864	19 621	9
1959	2 520	7 230	9 749	3 074	294	2 281	2 575	5 150	891	21 440	10
1960	2 632	7 958	10 589	3 342	317	2 485	2 801	5 602	918	23 253	11
1961	2 479	7 892	10 371	3 272	333	2 649	2 982	5 964	945	23 535	11

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1962	2 550	8 536	11 086	3 494	359	2 904	3 262	6 525	972	25 339	12
1963	2 652	9 322	11 974	3 766	378	3 137	3 515	7 031	991	27 276	13
1964	2 753	10 154	12 907	4 048	416	3 533	3 948	7 896	844	29 644	14
1965	2 804	10 837	13 641	4 263	433	3 771	4 204	8 408	846	31 362	15
1966	2 835	11 469	14 304	4 451	464	4 131	4 596	9 191	846	33 387	16
1967	2 720	11 510	14 229	4 434	480	4 342	4 822	9 644	846	33 975	16
1968	2 745	12 139	14 884	4 612	515	4 740	5 255	10 510	846	36 108	17
1969	2 871	13 254	16 126	4 967	543	5 105	5 648	11 296	846	38 884	19
1970	2 944	14 175	17 119	5 211	572	5 489	6 061	12 122	846	41 359	20
1971	2 950	14 627	17 577	5 369	590	5 782	6 372	12 744	846	42 908	20
1972	3 041	15 522	18 563	5 687	661	6 610	7 271	14 542	846	46 908	22
1973	3 065	16 287	19 352	5 854	702	7 160	7 862	15 725	846	49 640	24
1974	3 107	16 980	20 087	6 090	703	7 313	8 016	16 033	846	51 072	24
1975	3 253	18 277	21 530	6 498	702	7 408	8 110	16 221	846	53 205	25
1976	3 349	19 228	22 577	6 832	735	7 906	8 641	17 282	846	56 178	27
1977	3 510	20 427	23 937	7 266	797	8 649	9 446	18 891	846	60 386	29
1978	3 558	20 963	24 521	7 507	853	9 383	10 236	20 472	846	63 583	30
1979	3 719	22 182	25 901	8 033	872	9 684	10 556	21 112	846	66 449	32
1980	3 806	22 928	26 734	8 335	883	9 935	10 818	21 636	846	68 369	33
1981	3 844	23 512	27 356	8 572	887	10 108	10 995	21 990	864	69 778	33
1982	3 996	24 811	28 807	9 071	887	10 249	11 137	22 274	873	72 162	34
1983	4 018	25 319	29 337	9 282	917	10 724	11 641	23 282	882	74 423	35
1984	4 231	27 052	31 283	9 901	941	11 152	12 093	24 186	891	78 354	37
1985	4 456	28 903	33 359	10 605	959	11 513	12 472	24 944	900	82 280	39
1986	4 567	30 044	34 611	11 006	1 008	12 298	13 306	26 611	918	86 453	41
1987	4 669	31 147	35 816	11 439	1 053	13 057	14 110	28 220	936	90 522	43
1988	4 783	32 128	36 911	11 910	1 118	14 087	15 205	30 410	954	95 389	45
1989	4 865	32 904	37 769	12 260	1 042	13 338	14 380	28 759	972	94 140	45
1990	4 711	32 298	37 009	12 060	1 043	13 455	14 498	28 995	990	93 552	45
1991	4 383	30 049	34 432	11 352	1 185	15 405	16 590	33 180	1 053	96 607	46
1992	4 509	32 039	36 548	11 859	1 123	14 711	15 834	31 669	1 080	96 990	46
1993	4 404	32 411	36 815	11 715	1 291	17 106	18 397	36 794	1 125	104 845	50
1994	4 516	34 398	38 914	12 147	1 370	18 358	19 728	39 456	1 170	111 415	53
1995	4 630	36 250	40 880	12 640	1 445	19 580	21 025	42 050	1 260	117 854	56
1996	4 699	37 415	42 115	12 970	1 493	20 379	21 872	43 745	1 350	122 052	58
1997	4 766	38 828	43 593	13 296	1 547	21 349	22 896	45 791	1 440	127 017	60
1998	4 602	38 743	43 345	12 978	1 540	21 560	23 100	46 200	1 530	127 153	61

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1999	4 323	37 590	41 913	12 321	1 600	22 560	24 160	48 320	1 620	128 335	61
2000	4 310	38 679	42 989	12 423	1 660	23 572	25 232	50 464	1 861	132 969	63
2001	4 638	42 139	46 777	13 498	1 750	25 025	26 775	53 550	2 018	142 618	68
2002	4 815	43 847	48 662	14 108	1 850	26 640	28 490	56 980	2 176	150 416	72
2003	5 210	47 550	52 760	15 371	2 020	29 290	31 310	62 620	2 334	164 395	78
2004	5 711	52 217	57 928	16 962	2 190	31 974	34 164	68 328	2 491	179 874	86
2005	6 046	55 371	61 417	18 078	2 350	34 545	36 895	73 790	2 649	192 830	92
2006	6 345	57 597	63 942	19 034	2 620	38 907	41 527	83 054	2 589	210 146	100
2007	6 572	59 102	65 674	19 781	2 820	42 300	45 120	90 240	3 355	224 170	107
2008	6 815	60 680	67 494	20 512	2 850	43 235	46 085	92 169	3 769	230 029	110
2009	6 849	60 349	67 198	20 684	3 050	46 818	49 868	99 735	4 062	241 547	115
2010	7 153	62 324	69 476	22 587	3 290	50 995	54 285	108 570	4 259	259 177	123
2011	7 931	67 934	75 865	24 429	3 650	56 575	60 225	120 450	4 877	285 846	136
2012	8 201	69 012	77 214	25 752	3 820	59 592	63 412	126 824	5 826	299 029	142
2013	8 226	69 370	77 596	26 571	4 070	63 899	67 969	135 938	6 832	314 906	150
2014	8 165	68 702	76 867	27 270	4 180	65 626	69 806	139 612	8 086	321 640	153
2015	7 860	65 788	73 649	26 951	4 100	64 370	68 470	136 940	9 857	315 867	150

Table 1: Data used to calculate the global anthropogenic sediment flux (see paper and supplemental information for details of calculations and their implications); figures may not sum to totals due to rounding.