

RECOVERED PAPER DATA 1998-1999



RECOVERED PAPER DATA, 1998-1999

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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RECOVERED PAPER DATA, 1998-1999

INTRODUCTION

This FAO survey on “*Recovered Paper Data, 1998-1999*” follows the same format as last year. It was produced, as last year, in cooperation with the Confederation of European Paper Industry (CEPI) which supplied the necessary data relevant to its member countries (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden, the United Kingdom) and its associate members (Czech Republic, Norway, Slovak Republic, Switzerland). FAO collected data for the other countries.

The questionnaires issued out are the same as those of the last survey but two questions were eliminated on the use of recovered paper for energy generation and on market de-inked pulp.

The survey presents data on recovery, trade, and utilization of recovered paper. Historical data for the period 1998-1999 is presented and only a few (six) countries provided projections of recovery and use of recovered paper for the years 2000, 2001, 2002 and 2003. The ratios used to analyse the data are the ones recommended by the Sub-group on Waste Paper Terminology, and are defined later in this document. Appendix 1 contains a sample of the questionnaires, which FAO sent to 46 countries.

The 34¹ countries which answered the questionnaires represent over 80 percent of the world paper and paperboard production, and the data presented can be considered representative of the recovery, use and trade of recovered paper in the world.

DEFINITIONS OF TERMS USED

The FAO Advisory Committee on Pulp and Paper created a Sub-group on Waste Paper Terminology to define the terms to be used by FAO to describe waste paper recovery and utilization. The two changes made concern the terminology and apply to waste paper utilization rate and waste paper in fibre use rate, which have been renamed recovered paper utilization rate and recovered paper in fibre use rate, respectively. The following rates are used in this survey:

- a) Waste paper net recovery
- b) Adjusted waste paper net recovery
- c) Recovered paper utilization
- d) Recovered paper in fibre use

The definitions of the rates are given below:

- a) Waste paper net recovery rate: is the amount of waste paper collected for re-use as a percentage of the adjusted paper and paperboard consumption;

(Note: the adjusted paper and paperboard consumption is equal to the apparent consumption of paper and paperboard plus the net trade in converted paper and paperboard products, excluding printed materials.)

¹ Australia, Austria, Brazil, Canada, Chile, Colombia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Indonesia, Iraq, Ireland, Israel, Italy, Japan, Republic of Korea, Latvia, Mexico, Morocco, the Netherlands, New Zealand, Norway, Portugal, Romania, Slovak Republic, Spain, Sweden, Switzerland, United Kingdom, United States of America.

- b) Adjusted waste paper net recovery rate: is the amount of waste paper collected as a percentage of the adjusted paper and paperboard consumption from which the non-recoverable paper and paperboard is deducted;
- c) Recovered paper utilization rate: is the amount of recovered paper used for paper and paperboard as a percentage of paper and paperboard production;
- c) Recovered paper in fibre use rate: is the amount of recovered paper used for paper and paperboard as a percentage of the total fibre used for paper and paperboard.

NOTE

The figures reported in this survey are the ones supplied by countries. As is apparent from some figures in the tables (consumption of recovered paper without any relation to paper production, unrealistic percentages, etc.), there is some misunderstanding in the definitions, and readers are urged to use caution when interpreting data for some countries.

WASTE PAPER RECOVERY

Most of the paper and paperboard consumed is theoretically available for re-utilization, with the exception of tissue papers, the highly contaminated and the permanently conserved papers.

Table 1 – *Non-recoverable paper and paperboard (1998 and 1999)* shows that for the 34 countries listed, only eight could provide the required information, and that the amount of non-recoverable paper and paperboard expressed as a percentage of apparent paper and paperboard consumption varies between a low of 10 percent for the United States of America and a high of 51 percent in Indonesia for 1998.

TABLE 1 - NON-RECOVERABLE PAPER AND PAPERBOARD

Country	1998			1999		
	Apparent consumption of paper and paperboard	Non-recoverable paper and paperboard		Apparent consumption of paper and paperboard	Non-recoverable paper and paperboard	
	1000 mt	1000 mt	%	1000 mt	1000 mt	%
Australia ¹	3 259		0.0	3 461		0.0
Austria	1 795		0.0	1 965		0.0
Brazil	6 276	1 111	17.7	6 363	1 132	17.8
Canada	11 367		0.0	12 307		0.0
Chile	220		0.0	219		0.0
Colombia	1 006	183	18.2	1 006	158	15.7
Czech Republic	882		0.0	865		0.0
Denmark	1 228		0.0	1 218		0.0
Finland	1 523		0.0	1 476		0.0
France	11 363		0.0	11 453		0.0
Germany	17 040		0.0	17 708		0.0
Greece	950		0.0	901		0.0
Hungary	654	131	20.0	641	128	20.0
Indonesia	2 783	1 428	51.3	3 105	1 905	61.4
Iraq	330		0.0	360		0.0
Ireland	441		0.0	460		0.0
Israel	860		0.0	900		0.0
Italy	9 919		0.0	10 303		0.0
Japan	29 948	6 240	20.8	30 303	6 294	20.8
Korea, Republic of	5 275		0.0	6 709		0.0
Latvia	100	30	30.0	102	30	29.4
Mexico	4 589		0.0	4 963		0.0
Morocco	281		0.0	290		0.0
Netherlands	4 380		0.0	4 456		0.0
New Zealand	668		0.0	673		0.0
Norway	838		0.0	818		0.0
Portugal	950		0.0	951		0.0
Romania	400	82	20.5	347	85	24.5
Slovak Republic				338		0.0
Spain	6 072		0.0	6 435		0.0
Sweden	2 155		0.0	2 271		0.0
Switzerland	1 638		0.0	1 719		0.0
United Kingdom	12 474		0.0	12 723		0.0
United States of America	91 751	9 175	10.0	95 342	9 534	10.0

¹ Australia data covers July 1997 to June 1998 and July 1998 to June 1999 instead of 1998 and 1999.

RECOVERED PAPER TRADE

Tables 2a and 2b – *Recovered paper trade in relation to recovered paper collection and utilization of recovered paper*, and Appendices 5 to 8 present the results of the survey.

In 1999, the United States of America was the major exporter with over 7.5 million t in 1999, followed by Germany with more than 3.6 million t, and by the Netherlands and France with 1.6 and 1 million t, respectively.

TABLE 2a – RECOVERED PAPER TRADE IN RELATION TO RECOVERED PAPER COLLECTION AND UTILIZATION OF RECOVERED PAPER

Country	1998					
	Waste paper collected for re-use	Exports of recovered paper		Recovered paper used for paper and paperboard	Imports of recovered paper	
	1000 mt	1000 mt	%	1000 mt	1000 mt	%
Australia ¹	1 557	137	8.8	1 463	43	2.9
Austria	1 163	92	7.9	1 732	661	38.2
Brazil	2 277	4	0.2	2 295	22	1.0
Canada		575		4 801	2 226	46.4
Chile	233	14	6.0		2	
Colombia		0		361	27	7.5
Czech Republic	335	60	17.9	319	44	13.8
Denmark	635	305	48.0	415	83	20.0
Finland	665	91	13.7	633	59	9.3
France	4 614	838	18.2	4 931	1 155	23.4
Germany	11 913	3 311	27.8	9 917	1 064	10.7
Greece	203	10	4.9	243	45	18.5
Hungary	291	31	10.7	310	62	20.0
Indonesia	1 355	0	0.0	3 389	2 033	60.0
Iraq	20	0	0.0	8	0	0.0
Ireland	92	49	53.3	55	12	21.8
Israel	187		0.0	198	21	10.6
Italy	3 300	42	1.3	4 112	854	20.8
Japan	16 678	561	3.4	16 377	294	1.8
Korea, Republic of				5 764	1 963	34.1
Latvia	35	19	53.4	2	0	0.0
Mexico	3 395		0.0	3 395	1 272	37.5
Morocco	35		0.0	70	35	50.0
Netherlands	2 535	1 448	57.1	2 266	1 207	53.3
New Zealand		31		109	0	0.0
Norway	453	219	48.3	287	53	18.5
Portugal	395	56	14.2	352	13	3.7
Romania	115	0	0.3	125	16	13.0
Slovak Republic		11			114	
Spain	2 635	53	2.0	3 396	815	24.0
Sweden	1 378	169	12.3	1 760	549	31.2
Switzerland	1 062	210	19.8	1 082	230	21.3
United Kingdom	5 028	402	8.0	4 654	58	1.2
United States of America	40 893	7 364	18.0	32 450	464	1.4

¹ Australia data covers July 1997 to June 1998 instead of 1998.

As shown in Appendices 5 and 6, exports from the United States of America grew from 7.3 million t in 1998 to 7.5 million t in 1999.

Appendices 7 and 8 show imports of recovered paper and indicate that Canada, the Republic of Korea and Indonesia were the largest importers of recovered paper all importing about 2 million t in 1998 with Canada decreasing to 1.4 million t, while the others grew well over 2 million t in 1999. Imports can represent high percentage of the use of recovered paper reaching more than 60 percent in Indonesia and the Netherlands. Among CEPI countries, imports range from a low of 4 percent in Portugal and Denmark to over 60 percent in the Netherlands.

TABLE 2b - RECOVERED PAPER TRADE IN RELATION TO RECOVERED PAPER COLLECTION AND UTILIZATION OF RECOVERED PAPER

Country	1999					
	Waste paper collected for re-use	Exports of recovered paper		Recovered paper used for paper and paperboard	Imports of recovered paper	
	1000 mt	1000 mt	%	1000 mt	1000 mt	%
Australia ¹	1 762	272	15.4	1 536	46	3.0
Austria	1 304	150	11.5	1 787	661	37.0
Brazil	2 384	2	0.1	2 416	34	1.4
Canada		503		5 080	1 436	28.3
Chile	230	12	5.2		0	
Colombia		2		340	37	10.9
Czech Republic	340	68	20.0	325	44	13.5
Denmark				419	18	4.3
Finland	697	94	13.5	696	58	8.3
France	5 037	997	19.8	5 277	1 156	21.9
Germany	12 942	3 630	28.0	10 213	980	9.6
Greece	280		0.0	320	15	4.7
Hungary	297	36	12.1	299	62	20.7
Indonesia	1 200	0	0.0	3 400	2 200	64.7
Iraq	22	0	0.0	8	0	0.0
Ireland	84		0.0	46		0.0
Israel	186		0.0	205	23	11.2
Italy	3 629	128	3.5	4 207	853	20.3
Japan	17 183	288	1.7	17 083	300	1.8
Korea, Republic of				6 869	2 325	33.8
Latvia	35	24	69.1	2	1	65.0
Mexico	3 452		0.0	3 452	1 165	33.7
Morocco	35		0.0	57	22	38.6
Netherlands	2 525	1 600	63.4	2 375	1 450	61.1
New Zealand		90		190	0	0.0
Norway	534	276	51.7	293	53	18.1
Portugal	433	84	19.4	364	13	3.6
Romania	192	0	0.2	117	7	5.9
Slovak Republic	137	15	10.9	249	114	45.8
Spain	2 963	59	2.0	3 609	815	22.6
Sweden	1 384	225	16.3	1 834	550	30.0
Switzerland	1 094		0.0	1 112	230	20.7
United Kingdom	5 136	444	8.6	4 753	58	1.2
United States of America	42 917	7 518	17.5	33 767	386	1.1

¹ Australia data covers July 1998 to June 1999 instead of 1999.

RECOVERED PAPER UTILIZATION FOR PURPOSES OTHER THAN PAPER AND PAPERBOARD MAKING

Tables 3a and 3b – *Distribution of the total use of recovered paper between paper/paperboard making and other uses*, gives the relevant information. The information collected indicates that in most cases nearly all recovered paper is used for paper and paperboard production.

RECOVERED PAPER UTILIZATION BY THE PAPER AND PAPERBOARD INDUSTRY

Tables 4a and 4b – *Recovered paper utilization rate, recovered paper in fibre use rate and total fibre used for paper and paperboard production*, indicates the amounts of recovered paper being used in the paper furnish.

The recovered paper in fibre use rate (see page 2 for definition) varies widely from one country to another, ranging from lows around 10 percent, mostly in resources-rich countries, such as Norway, and Finland, to highs around 80 percent in countries such as Mexico and the Republic of Korea. There are more and more countries reporting figures in the 60 percent range indicating an increase in the use of recovered fibres in paper furnish. Figures superior to 100 percent either include fibre lost during processing or are erroneously reported by correspondents.

The recovered paper utilization rate, representing how much recovered paper is used in the production of paper and paperboard, shows low values in fibre-rich countries, and high in fibre-poor regions.

Tables 5a and 5b – *Composition of recovered paper*, shows what are the major grades of paper entering in the flow of recovered paper. On average worldwide, corrugated, solid containers and kraft sack waste account for nearly half of the total recovered paper, while newspaper and magazines grades account for a much lower share of the total.

Tables 6a and 6b – *Use of recovered paper by grades*, shows in what percentage recovered paper is used in the production of various paper and paperboard grades. The data indicates that the percentage of recovered paper entering the production of paper is much higher for packaging grades than cultural grades.

TABLE 3a – DISTRIBUTION OF THE TOTAL USE OF RECOVERED PAPER BETWEEN PAPER/PAPERBOARD MAKING AND OTHER USES

Country	1998				
	Total use of recovered paper	Recovered paper used for paper and paperboard		Recovered paper used for other purposes	
	1000 mt	1000 mt	%	1000 mt	%
Australia ¹	1 463	1 463	100.0		0.0
Austria	1 732	1 732	100.0		0.0
Brazil	2 295	2 295	100.0		0.0
Canada	4 801	4 801	100.0		0.0
Chile					
Colombia	361	361	100.0		0.0
Czech Republic	319	319	100.0		0.0
Denmark	415	415	100.0		0.0
Finland	633	633	100.0		0.0
France	4 931	4 931	100.0		0.0
Germany	9 917	9 917	100.0		0.0
Greece	243	243	100.0		0.0
Hungary	322	310	96.3	12	3.7
Indonesia	3 389	3 389	100.0		0.0
Iraq	18	8	44.4	10	55.6
Ireland	55	55	100.0		0.0
Israel	208	198	95.2	10	4.8
Italy	4 112	4 112	100.0		0.0
Japan	16 490	16 377	99.3	113	0.7
Korea, Republic of	5 764	5 764	100.0		0.0
Latvia	6	2	31.7	4	68.3
Mexico	3 395	3 395	100.0		0.0
Morocco	70	70	100.0		0.0
Netherlands	2 266	2 266	100.0		0.0
New Zealand	109	109	100.0		0.0
Norway	287	287	100.0		0.0
Portugal	352	352	100.0		0.0
Romania	131	125	95.4	6	4.6
Slovak Republic					
Spain	3 396	3 396	100.0		0.0
Sweden	1 760	1 760	100.0		0.0
Switzerland	1 082	1 082	100.0		0.0
United Kingdom	4 654	4 654	100.0		0.0
United States of America	33 992	32 450	95.5	1 542	4.5

¹ Australia data covers July 1997 to June 1998 instead of 1998.

TABLE 3b – DISTRIBUTION OF THE TOTAL USE OF RECOVERED PAPER BETWEEN PAPER/PAPERBOARD MAKING AND OTHER USES

Country	1999				
	Total use of recovered paper	Recovered paper used for paper and paperboard		Recovered paper used for other purposes	
	1000 mt	1000 mt	%	1000 mt	%
Australia ¹	1 536	1 536	100.0		0.0
Austria	1 787	1 787	100.0		0.0
Brazil	2 416	2 416	100.0		0.0
Canada	5 080	5 080	100.0		0.0
Chile					
Colombia	340	340	100.0		0.0
Czech Republic	325	325	100.0		0.0
Denmark	419	419	100.0		0.0
Finland	696	696	100.0		0.0
France	5 277	5 277	100.0		0.0
Germany	10 213	10 213	100.0		0.0
Greece	320	320	100.0		0.0
Hungary	323	299	92.6	24	7.4
Indonesia	3 400	3 400	100.0		0.0
Iraq	18	8	44.4	10	55.6
Ireland	46	46	100.0		0.0
Israel	209	205	98.1	4	1.9
Italy	4 207	4 207	100.0		0.0
Japan	17 207	17 083	99.3	124	0.7
Korea, Republic of	6 869	6 869	100.0		0.0
Latvia	6	2	34.5	4	65.5
Mexico	3 452	3 452	100.0		0.0
Morocco	57	57	100.0		0.0
Netherlands	2 375	2 375	100.0		0.0
New Zealand	190	190	100.0		0.0
Norway	293	293	100.0		0.0
Portugal	364	364	100.0		0.0
Romania	123	117	95.1	6	4.9
Slovak Republic	249	249	100.0		0.0
Spain	3 609	3 609	100.0		0.0
Sweden	1 834	1 834	100.0		0.0
Switzerland	1 112	1 112	100.0		0.0
United Kingdom	4 753	4 753	100.0		0.0
United States of America	35 581	33 767	94.9	1 814	5.1

¹ Australia data covers July 1998 to June 1999 instead of 1999.

TABLE 4a - RECOVERED PAPER UTILIZATION RATE, RECOVERED PAPER IN FIBRE USE RATE AND TOTAL FIBRE USED FOR PAPER AND PAPERBOARD PRODUCTION

Country	1998					
	Paper and paperboard production	Total fibre used for paper and paperboard	Recovered paper used for paper and paperboard	Total fibre used / paper and paperboard production	Recovered paper in fibre use rate	Recovered paper utilization rate
	1000 mt	1000 mt	1000 mt	%	%	%
Australia ¹	2 542		1 463	0		58
Austria	4 009	3 543	1 732	88	49	43
Brazil	6 589	6 196	2 295	94	37	35
Canada	18 318		4 801	0		26
Chile						
Colombia	711	771	361	108	47	51
Czech Republic	785	765	319	97	42	41
Denmark	340		415	0		122
Finland	12 702	10 390	633	82	6	5
France	9161	9 189	4 931	100	54	54
Germany	16 311	15 348	9 917	94	65	61
Greece	322	382	243	119	64	75
Hungary	434	487	310	112	64	71
Indonesia	5 487	6 001	3 389	109	56	62
Iraq	3	1	8	55	552	303
Ireland	43	55	55	128	100	128
Israel	265		198	0		75
Italy	8 246	7 637	4 112	93	54	50
Japan	29 886	29 761	16 377	100	55	55
Korea, Republic of	7 750	7 988	5 764	103	72	74
Latvia	18	2	2	11	100	11
Mexico	3 669	4 244	3 395	116	80	93
Morocco	110	117	70	106	60	64
Netherlands	3 180	3 292	2 266	104	69	71
New Zealand	835	935	109	112	12	13
Norway	2 260	2 271	287	100	13	13
Portugal	1 135	1 117	352	98	32	31
Romania	294	293	125	100	43	42
Slovak Republic						
Spain	4 196	4 837	3 396	115	70	81
Sweden	9 879	9 763	1 760	99	18	18
Switzerland	1 591	1 581	1 082	99	68	68
United Kingdom	6 476	6 724	4 654	104	69	72
United States of America	87 386		32 450	0		37

¹ Australia data covers July 1997 to June 1998 instead of 1998.

TABLE 4b - RECOVERED PAPER UTILIZATION RATE, RECOVERED PAPER IN FIBRE USE RATE AND TOTAL FIBRE USED FOR PAPER AND PAPERBOARD PRODUCTION

Country	1999					
	Paper and paperboard production	Total fibre used for paper and paperboard	Recovered paper used for paper and paperboard	Total fibre used / paper and paperboard production	Recovered paper in fibre use rate	Recovered paper utilization rate
	1000mt	1000mt	1000mt	%	%	%
Australia ¹	2 540		1 536	0		60
Austria	4 141	4 255	1 787	103	42	43
Brazil	6 943	6 593	2 416	95	37	35
Canada	19 315		5 080	0		26
Chile						
Colombia	734	769	340	105	44	46
Czech Republic	770	797	325	104	41	42
Denmark	347	531	419	153	79	121
Finland	12 948	10 891	696	84	6	5
France	9 603	9 649	5 277	100	55	55
Germany	16 742	15 844	10 213	95	64	61
Greece	318	360	320	113	89	101
Hungary	456	515	299	113	58	66
Indonesia	6 977	7 581	3 400	109	45	49
Iraq	3	1	8	28	965	270
Ireland	43	46	46	107	100	107
Israel	280		205	0		73
Italy	8 567	8 168	4 207	95	52	49
Japan	30 631	30 394	17 083	99	56	56
Korea, Republic of	8 875	9 532	6 869	107	72	77
Latvia	19	2	2	11	100	11
Mexico	3 796	4 386	3 452	116	79	91
Morocco	110	116	57	105	49	52
Netherlands	3 255	3 520	2 375	108	67	73
New Zealand	805	901	190	112	21	24
Norway	2 241	2 226	293	99	13	13
Portugal	1 162	1 095	364	94	33	31
Romania	289	281	117	97	42	41
Slovak Republic	603	602	249	100	41	41
Spain	4 435	5 042	3 609	114	72	81
Sweden	10 071	9 861	1 834	98	19	18
Switzerland	1 754	1 683	1 112	96	66	63
United Kingdom	6 575	6 651	4 753	101	71	72
United States of America	89 292		33 767	0		38

¹ Australia data covers July 1998 to June 1999 instead of 1999.

TABLE 5a – COMPOSITION OF RECOVERED PAPER (IN PERCENT)

Country	1998					
	Total recovered paper	Old and over-issue newspapers and magazines, telephone directories, brochures, etc.	Corrugated, solid containers and kraft sack waste (old and new)	Wood-free printing and writing paper, punch cards and other high-grade qualities	Mixed grades	All other types of recovered papers
	%	%	%	%	%	%
Australia ¹	100	28.2	62.5	9.3	0.0	0.0
Austria	100	36.2	33.7	7.8	22.3	0.0
Brazil	100	7.6	66.8	12.2	6.6	6.8
Canada	100	42.1	37.6	11.3	4.0	5.1
Chile						
Colombia	100	10.5	61.2	24.9	3.3	0.0
Czech Republic						
Denmark						
Finland	100	45.2	31.0	11.4	12.5	0.0
France	100	23.0	56.1	9.0	11.9	0.0
Germany	100	29.9	27.6	12.6	29.9	0.0
Greece						
Hungary	100	8.1	53.9	3.5	34.5	0.0
Indonesia						
Iraq	100	23.9	2.7	15.5	58.0	0.0
Ireland						
Israel	100	17.2	49.5	26.8	6.6	0.0
Italy	100	18.5	48.4	4.2	29.0	0.0
Japan	100	26.5	46.4	9.3	13.5	4.3
Korea, Republic of	100	28.7	46.0	4.4	0.0	20.9
Latvia	100	50.0	0.0	50.0	0.0	0.0
Mexico	100	23.2	55.8	18.8	0.0	2.2
Morocco						
Netherlands	100	29.5	25.9	8.4	36.3	0.0
New Zealand	100	65.1	32.1	0.9	0.0	1.8
Norway	100	14.6	81.3	1.0	3.1	0.0
Portugal	100	2.8	59.7	22.7	14.8	0.0
Romania	100	0.0	10.6	0.0	89.4	0.0
Slovak Republic						
Spain	100	13.3	52.9	19.3	14.5	0.0
Sweden	100	56.4	28.4	7.5	7.7	0.0
Switzerland	100	36.6	15.5	8.4	39.5	0.0
United Kingdom	100	24.9	43.5	19.6	12.0	0.0
United States of America						

¹ Australia data covers July 1997 to June 1998 instead of 1998.

TABLE 5b – COMPOSITION OF RECOVERED PAPER (IN PERCENT)

Country	1999					
	Total recovered paper	Old and over-issue newspapers and magazines, telephone directories, brochures, etc.	Corrugated, solid containers and kraft sack waste (old and new)	Wood-free printing and writing paper, punch cards and other high-grade qualities	Mixed grades	All other types of recovered papers
	%	%	%	%	%	%
Australia ¹	100	24.3	64.5	11.2	0.0	0.0
Austria	100	33.2	32.3	7.4	27.1	0.0
Brazil	100	7.2	68.0	11.9	6.0	6.9
Canada	100	41.5	37.1	11.5	4.5	5.4
Chile						
Colombia	100	9.4	57.6	30.0	2.9	0.0
Czech Republic	100	25.8	49.2	4.3	20.6	0.0
Denmark	100	16.9	42.0	24.1	16.9	0.0
Finland	100	44.5	31.5	14.2	9.8	0.0
France	100	22.4	54.3	12.8	10.6	0.0
Germany	100	23.1	29.9	18.6	28.4	0.0
Greece	100	6.3	71.9	9.4	12.5	0.0
Hungary	100	8.7	55.5	3.7	18.4	13.7
Indonesia						
Iraq	100	25.5	3.3	16.5	54.8	0.0
Ireland	100	10.9	43.5	10.9	34.8	0.0
Israel	100	19.0	46.3	27.8	6.8	0.0
Italy	100	15.9	47.9	13.5	22.7	0.0
Japan	100	26.1	46.5	9.6	13.5	4.3
Korea, Republic of	100	26.7	54.1	6.4	0.0	12.8
Latvia	100	50.0	0.0	50.0	0.0	0.0
Mexico	100	18.4	57.2	22.2	0.0	2.3
Morocco						
Netherlands	100	30.3	22.9	11.5	35.3	0.0
New Zealand	100	32.1	65.8	0.5	0.0	1.6
Norway	100	8.9	73.7	3.8	13.7	0.0
Portugal	100	19.2	58.0	8.0	14.8	0.0
Romania	100	0.0	12.9	0.0	87.1	0.0
Slovak Republic	100	39.8	47.4	3.2	9.6	0.0
Spain	100	12.1	51.1	17.5	19.3	0.0
Sweden	100	55.1	29.7	5.0	10.3	0.0
Switzerland	100	27.2	24.5	13.8	34.4	0.0
United Kingdom	100	27.4	43.7	18.7	10.2	0.0
United States of America						

¹ Australia data covers July 1998 to June 1999 instead of 1999.

TABLE 6a – USE OF RECOVERED PAPER BY GRADES IN PERCENT

Country	1998									
	Recovered paper used for paper and paperboard	Newsprint	Other printing and writing papers	Household and sanitary paper	Kraftliner	Other linerboard and fluting medium	Other kraft wrapping and packaging paper	Folding boxboard	Other wrapping and packaging paper and paperboard	Other paper and paperboard n.e.s.
	%	%	%	%	%	%	%	%	%	%
Australia ¹	100	9.5	2.2	1.2	0.0	0.0	0.0	0.0	87.1	0.0
Austria	100	13.7	16.6	7.7	0.0	37.9	0.0	20.7	2.6	0.8
Brazil	100	0.0	0.8	16.8	0.0	59.5	3.8	12.7	5.9	0.5
Czech Republic										
Finland	100	34.8	0.8	21.6	0.0	2.1	0.0	0.0	10.7	30.0
France	100	10.9	4.9	4.8	0.0	59.4	0.0	13.4	2.8	3.9
Germany	100	19.2	10.8	6.5	0.0	39.0	0.0	8.8	8.7	6.9
Hungary	100	0.0	5.5	12.3	0.0	63.5	11.9	0.0	6.1	0.6
Italy	100	5.7	0.0	5.1	0.0	60.0	0.0	15.5	9.9	3.9
Latvia	100	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mexico	100	23.2	18.8	0.0	0.0	0.0	55.8	0.0	0.0	2.2
Netherlands	100	18.3	0.3	7.8	0.0	37.5	0.0	5.5	26.5	4.2
Norway	100	0.0	0.0	13.9	0.0	75.6	0.0	0.0	10.5	0.0
Portugal	100	0.0	0.0	17.0	0.0	62.8	0.0	6.3	11.6	2.3
Romania	100	0.0	0.0	31.1	10.6	42.5	0.0	0.0	15.9	0.0
Slovak Republic										
Spain	100	4.7	1.8	12.0	0.0	56.7	0.0	13.9	2.0	8.9
Sweden	100	46.3	0.0	12.6	0.0	27.8	0.0	7.5	0.0	5.7
Switzerland	100	29.2	4.3	10.7	0.0	37.5	0.0	17.6	0.7	0.0
United Kingdom	100	21.4	6.6	11.6	0.0	40.2	0.0	1.5	11.7	6.9
United States of America	100	11.1	6.7	10.6	10.4	0.0	1.6	0.0	28.8	30.9

¹ Australia data covers July 1997 to June 1998 instead of 1998.

TABLE 6b - USE OF RECOVERED PAPER BY GRADES IN PERCENT

Country	1999									
	Recovered paper used for paper and paperboard	Newsprint	Other printing and writing papers	Household and sanitary paper	Kraftliner	Other linerboard and fluting medium	Other kraft wrapping and packaging paper	Folding boxboard	Other wrapping and packaging paper and paperboard	Other paper and paperboard n.e.s.
	percent	percent	percent	percent	percent	percent	percent	percent	percent	percent
Australia ¹	100	10.4	2.0	1.7	0.0	0.0	0.0	0.0	85.9	0.0
Austria	100	14.8	15.7	8.0	0.0	37.2	0.0	21.5	2.3	0.5
Brazil	100	0.0	0.4	16.8	0.0	59.9	3.7	13.6	5.2	0.4
Czech Republic	100	12.9	1.8	4.9	0.0	56.6	0.0	5.2	16.3	2.2
Finland	100	36.4	1.0	20.1	0.0	5.3	0.0	0.0	35.8	1.4
France	100	15.1	6.5	5.0	0.0	56.5	0.0	7.3	7.9	1.7
Germany	100	18.8	10.3	6.6	0.0	39.5	0.0	9.4	8.6	6.9
Hungary	100	0.0	5.7	11.7	0.0	66.9	11.4	0.0	4.3	0.0
Italy	100	2.6	2.7	5.2	0.0	60.6	0.0	15.5	10.2	3.1
Latvia	100	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mexico	100	18.4	22.2	0.0	0.0	0.0	57.2	0.0	0.0	2.3
Netherlands	100	16.3	0.6	0.0	0.0	37.8	0.0	10.7	34.6	0.0
Norway	100	0.0	0.0	14.7	0.0	18.8	0.0	56.7	9.9	0.0
Portugal	100	0.0	1.1	15.1	0.0	65.9	0.0	8.5	7.4	1.9
Romania	100	0.0	0.0	30.3	12.9	42.9	0.0	0.0	13.9	0.0
Slovak Republic	100	0.0	0.0	43.4	0.0	44.2	0.0	1.6	10.8	0.0
Spain	100	7.2	1.7	9.4	0.0	55.5	0.0	12.6	1.9	11.7
Sweden	100	46.8	0.0	11.0	0.0	29.4	0.0	7.3	0.0	5.5
Switzerland	100	31.0	3.4	9.6	0.0	37.8	0.0	17.3	0.1	0.8
United Kingdom	100	23.2	4.5	13.2	0.0	40.1	0.0	1.6	9.1	8.3
United States of America	100	10.7	6.4	10.6	10.5	0.0	1.4	0.0	29.4	30.9

¹ Australia data covers July 1998 to June 1999 instead of 1999.

LOSSES IN REPULPING OF WASTE PAPER

Waste paper has higher losses during pulping than virgin material, due to the amount of fines and filler in the waste paper. As the content of waste paper increases in the raw material, the amount of losses will go up.

Table 7 – *Losses in repulping and processing into paper and paperboard*, presents the percentage figures for pulping losses. Though data is scarce, in most of the countries reporting the information, pulping losses are between 10 and 20 percent, with some exceptions probably due to antiquated equipment or poor processing control.

TABLE 7 - LOSSES IN REPULPING AND PROCESSING INTO PAPER AND PAPERBOARD

Country	1998			1999		
	Total recovered paper used	Losses in pulping		Total recovered paper used	Losses in pulping	
	1000 mt	1000 mt	%	1000 mt	1000 mt	%
Australia ¹	1 463		0.0	1 536		0.0
Austria	1 732		0.0	1 787		0.0
Brazil	2 295	344	15.0	2 416	362	15.0
Canada	4 801		0.0	5 080		0.0
Chile						
Colombia	361	67	18.5	340	61	17.9
Czech Republic	319		0.0	325		0.0
Denmark	415		0.0	419		0.0
Finland	633		0.0	696		0.0
France	4 931		0.0	5 277		0.0
Germany	9 917		0.0	10 213		0.0
Greece	243		0.0	320		0.0
Hungary	322	47	14.6	323	45	13.9
Indonesia	3 389		0.0	3 400		0.0
Iraq	18	2	12.6	18	2	12.7
Ireland	55		0.0	46		0.0
Israel	208		0.0	209		0.0
Italy	4 112		0.0	4 207		0.0
Japan	16 490		0.0	17 207		0.0
Korea, Republic of	5 764		0.0	6 869		0.0
Latvia	6		0.0	6		0.0
Mexico	3 395	575	16.9	3 452	590	17.1
Morocco	70	7	10.0	57	6	10.5
Netherlands	2 266		0.0	2 375		0.0
New Zealand	109	100	91.7	190	97	51.1
Norway	287		0.0	293		0.0
Portugal	352		0.0	364		0.0
Romania	131	98	74.4	123	94	76.2
Slovak Republic				249		0.0
Spain	3 396		0.0	3 609		0.0
Sweden	1 760		0.0	1 834		0.0
Switzerland	1 082		0.0	1 112		0.0
United Kingdom	4 654		0.0	4 753		0.0
United States of America	33 992		0.0	35 581		0.0

¹ Australia data covers July 1997 to June 1998 and July 1998 to June 1999 instead of 1998 and 1999.

PROJECTED FUTURE RECOVERY OF WASTE PAPER

Table 8 – *Projected future recovery of waste paper and use of recovered paper for paper and paperboard making*, shows projections for the next five years in both waste paper collected for re-use and for recovered paper used for paper and paperboard. They are expressed as a percentage of the 1999 level taken as a base line (100 percent).

TABLE 8 - PROJECTED FUTURE RECOVERY OF WASTE PAPER AND USE OF RECOVERED PAPER FOR PAPER AND PAPERBOARD MAKING

Country	Waste paper collected for re-use					Recovered paper used for paper and paperboard				
	%					%				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Brazil	100.0	102.5	105.7	109.0	112.2	100.0	102.4	105.6	108.8	112.0
Hungary	100.0	106.0	112.4	119.0	126.0	100.0	104.6	109.2	113.8	118.5
Indonesia						100.0	108.2	112.5	120.2	137.0
Iraq	100.0	108.3	116.7	125.0	133.3	100.0	141.7	183.3	225.0	266.7
Japan	100.0	101.8	103.0	104.9	106.2	100.0	101.7	102.9	104.7	105.9
Korea, Republic of						100.0	104.0	108.1	111.8	116.1
Latvia	100.0	111.1	122.2	133.3	144.4	100.0	100.0	100.0	100.0	100.0
Mexico	100.0	101.9	105.8	106.4	106.5	100.0	101.7	105.8	106.4	106.5
Morocco	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
New Zealand						100.0	100.0	100.0	100.0	100.0
Romania	100.0	107.2	112.8	117.9	128.2	100.0	108.0	144.0	160.0	200.0

APPENDIX 1 – QUESTIONNAIRES

FAO RECOVERED PAPER SURVEY (1999)
Part 1: Main Questionnaire

Country:

(All figures in 1000 mt)		1998	1999
1.	Apparent consumption of paper and paperboard		
2.	Net trade in converted paper and paperboard products		
3.	Non-recoverable paper and paperboard		
4.	Waste paper collected for re-use		
5.	Exports of recovered paper*		
6.	Imports of recovered paper*		
7a.	Recovered paper* used domestically for purposes other than paper and paperboard making		
7b.	Recovered paper* used domestically for paper and paperboard making		
(i)	Old and over-issue newspapers and magazines, telephone directories, brochures, etc.		
(ii)	Corrugated, solid containers and kraft sack waste (old and new)		
(iii)	Wood-free printing and writing paper, punch cards and other high-grade qualities		
(iv)	Mixed grades		
(v)	All other types of recovered papers		
8.	Losses in repulping and processing into paper and paperboard		
9.	Total fibre used for paper and paperboard		
10.	Paper and paperboard production		

* Including recovered paper market pulp measured in terms of recovered paper.

FAO RECOVERED PAPER SURVEY (1999)

Part 2: Use of the main types of recovered paper in the manufacture of major grades of paper and paperboard.

Country:

		Types of recovered paper (all figures in 1000 mt)					
		Recovered paper* used domestically for paper and paperboard making. Total recovered paper	Old and over-issue newspapers, magazines, telephone directories, brochures, etc.	Corrugated, solid container and kraft sack waste (old and new)	Wood-free printing and writing papers, punch cards and other high-grade qualities	Mixed grades	All other types of recovered paper
Major grades of paper and paperboard	years	[7b.] **	[7b.(i)]**	[7b.(ii)]**	[7b.(iii)]**	[7b.(iv)]**	[7b.(v)]**
Paper and paperboard total	1998						
	1999						
Newsprint	1998						
	1999						
Other printing and writing papers	1998						
	1999						
Household and sanitary paper	1998						
	1999						
Kraftliner	1998						
	1999						
Other linerboard and fluting medium	1998						
	1999						
Other kraft wrapping and packaging paper	1998						
	1999						
Folding boxboard	1998						
	1999						
Other wrapping and packaging paper and paperboard	1998						
	1999						
Other paper and paperboard, n.e.s.	1998						
	1999						

* Including recovered paper market pulp measured in terms of recovered paper.

** Same headings as in Part 1: Main Questionnaire.

FAO RECOVERED PAPER SURVEY (1999)
Part 3: Projected future consumption and supply of recovered paper

Country:

(All figures in 1000 mt)	1999	2000	2001	2002	2003
Waste paper collected for re-use [4] **					
Exports of recovered paper* [5] **					
Imports of recovered paper* [6] **					
Recovered paper* used domestically for purposes other than paper and paperboard making [7a.] **					
Recovered paper* used domestically for paper and paperboard making [7b.] **					

* Including recovered paper market pulp measured in terms of recovered paper.

** Same headings as in Part 1: Main Questionnaire.

FAO RECOVERED PAPER SURVEY (1999)
Part 4: Recovered paper EXPORTS by country of destination

Country:

Recovered paper* EXPORTS to: (indicate countries of destination)	(All figures in 1000 mt)	
	1998	1999
Total exports of recovered papers * [5]**		

* Including recovered paper market pulp measured in terms of recovered paper.

** Same headings as in Part 1: Main Questionnaire.

**FAO RECOVERED PAPER SURVEY (1999)
Part 5: Recovered paper IMPORTS by country of destination**

Country:

Recovered paper* IMPORTS to: (indicate countries of destination)	(All figures in 1000 mt)	
	1998	1999
Total imports of recovered papers * [6]**		

* Including recovered paper market pulp measured in terms of recovered paper.
 ** Same headings as in Part 1: Main Questionnaire.

**APPENDIX 2 – DEFINITIONS OF THE TERMS USED IN
THE FAO RECOVERED PAPER SURVEY QUESTIONNAIRE**

1. Apparent consumption of paper and paperboard is the quantity of paper and paperboard consumed within a country without taking into account the changes in stocks. It is thus paper and paperboard production within the country plus imports minus exports.
2. Net trade in converted paper and paperboard products (excluding printed material) is the difference between the imports and exports of converted paper and paperboard products (SITC [Rev. 2] 642 and part of BIN 48). In case imports exceed exports, this factor is positive, and in case exports are higher than imports the factor is negative. This factor is used to adjust the apparent consumption of paper and paperboard in order to arrive at adjusted paper and paperboard consumption.
3. Non-recoverable paper and paperboard is the portion of adjusted paper and paperboard consumption which will not be technically available for recovery because of destruction, contamination or permanent conservation. In order to avoid having excessively long lists of all paper grades which are non-recoverable, only grades representing major quantities are listed below as examples.

FAO Production Code No.	Examples of Non-Recoverable Paper and Paperboard
4.2 (part)	Some part of printing and writing papers retained in libraries, archives, etc., in the form of books and permanent records
4.31 (total)	Household and sanitary paper
4.32.51 (part)	Vegetable parchment, greaseproof and glassine
4.33.1 (part)	Carbonizing tissue Condenser and capacitor paper Cable paper Cigarette paper Kraft paper used for waxing, asphaltting, water-proofing, laminating, impregnating, spinning or twisting, gumming, etc. Blotting paper Filter paper Photographic sensitizing paper Wallpaper base stock
4.33.2 (part)	Construction paper and paperboard Wet machine board, e.g. shoe, gasket, transformer, press, textile, panel, beer mat, trunk and suitcase boards, etc.

or other totally non-recoverable paper and paperboard.

4. Waste paper collected for re-use means the total quantity of waste paper collected from any sources of supply, in any form and for any kind of major industrial or commercial uses (including also other uses than paper and paperboard manufacturing). Broke, trimmings, tailings, etc., occurring in the paper manufacturing process cycle should, however, be excluded.

The annual volume of waste paper collected for re-use can be estimated by the following sequence shown below:

		<u>metric tons</u>
	recovered paper used domestically for paper and paperboard	...
plus	recovered paper used for purposes other than paper and paperboard making such as: moulded products, in bulk as wrapping or packaging material, any other major industrial or commercial purpose	...
less	imports of recovered paper for any kind of use	...
plus	exports of recovered paper for any kind of use	...
SUM	recovered paper collected for re-use	<hr style="border-top: 1px solid black;"/> <hr style="border-top: 3px double black;"/>

- 5 and 6. Exports and imports of recovered paper are the quantities of all kinds of waste paper exported and imported for any kind of use including waste paper market pulp² measured in terms of waste paper inputs.

- 7a. Recovered paper used domestically for purposes other than paper and paperboard making is the quantity of waste paper used for fibre building boards, moulded products, in bulk as wrapping and packaging material or for any other major industrial or commercial use.

- 7b. Recovered paper used domestically for paper and paperboard making is the net quantity of the waste paper intake at the mill (and excluding all sorting losses) of any kind of waste paper -either locally collected or imported - which is used exclusively in paper and paperboard manufacture including also recovered paper market pulp measured in terms of recovered paper input. (Whenever possible, the quantities of recovered paper should be expressed at 90 percent dryness and should include the losses in repulping and processing into paper and paperboard.) The details under this heading include the following:

- i) Old and over-issue newspapers and magazines, telephone directories, brochures, etc., i.e. waste paper containing mainly mechanical pulp.
- ii) Corrugated, solid container and kraft sack waste (old and new), i.e. recovered paper containing mainly unbleached sulphate pulp.

² Recovered paper market pulp is the pulp made of recovered paper for sale in the open market and does not include recovered paper pulp used in own plant or shipped to wholly owned or associated companies within the country. All recovered paper pulp moving outside the producing country is considered to be recovered paper market pulp.

- iii) Wood-free printing and writing papers, copy paper, computer printouts, and other high-grade qualities, i.e. recovered paper containing mainly bleached chemical pulp.
 - iv) All other types of recovered paper.
8. Losses in repulping and processing into paper and paperboard is the quantity which is lost as broken fibres, fillers, coatings and other additives when the recovered paper is repulped, as well as the fibre losses in processing the derived recovered paper pulp into paper and paperboard.
9. Total fibre used for paper and paperboard is the total input quantity of all types of fibres at 90 percent dryness used for paper and paperboard manufacturing. The fibres can originate from wood (round, split, chips, residues, sawdust, etc.), from non-wood fibrous vegetable materials (bagasse, straw, bamboo, esparto, other reeds and grass, cotton linters, flax, hemp, etc.), from rags and other textile wastes and from recovered paper.
10. Paper and paperboard production is the quantity of all paper and paperboard of commercial quality (fibre building boards not included) produced within a country.

PLEASE NOTE: For some of the headings or for some parts of the headings the data might not be readily available. In such cases you are kindly requested to make estimates and to indicate such estimates with, e.g. a footnote.

APPENDIX 3 - WASTE PAPER RECOVERY AND UTILIZATION OF RECOVERED PAPER IN PAPER AND PAPERBOARD INDUSTRY

APPENDIX 4 - WASTE PAPER RECOVERY AND UTILIZATION OF RECOVERED PAPER IN PAPER AND PAPERBOARD INDUSTRY

APPENDIX 5 - EXPORTS OF RECOVERED PAPER BY COUNTRY OF DESTINATION IN 1998

APPENDIX 6 - EXPORTS OF RECOVERED PAPER BY COUNTRY OF DESTINATION IN 1999

APPENDIX 7 - IMPORTS OF RECOVERED PAPER BY COUNTRY OF ORIGIN IN 1998

APPENDIX 8 - IMPORTS OF RECOVERED PAPER BY COUNTRY OF ORIGIN IN 1999

APPENDIX 3 - WASTE PAPER RECOVERY AND UTILIZATION OF RECOVERED PAPER IN PAPER AND PAPERBOARD INDUSTRY

Country	1998								
	Apparent consumption of paper and paperboard	Net trade in converted paper and paperboard products	Adjusted consumption of paper and paperboard	Non-recoverable paper and paperboard	Waste paper collected for re-use	Waste paper net recovery rate	Adjusted waste paper net recovery rate	Exports of recovered paper	Imports of recovered paper
	1000 mt	1000 mt	1000 mt	1000 mt	1000 mt	%	%	1000 mt	1000 mt
Australia ¹	3 259		3 259		1 557	47.8	47.8	137	43
Austria	1 795		1 795		1 163	64.8	64.8	92	661
Brazil	6 276	20	6 296	1 111	2 277	36.2	43.9	4	22
Canada	11 367	416	11 783			0	0	575	2 226
Chile	220		220		233	105.9	105.9	14	2
Colombia	1 006	-21	985	183		0	0	0	27
Czech Republic	882		882		335	38	38	60	44
Denmark	1 228		1 228		635	51.7	51.7	305	83
Finland	1 523		1 523		665	43.7	43.7	91	59
France	11 363		11 363		4 614	40.6	40.6	838	1 155
Germany	17 040		17 040		11 913	69.9	69.9	3 311	1 064
Greece	950		950		203	21.4	21.4	10	45
Hungary	654	60	714	131	291	40.8	49.9	31	62
Indonesia	2 783	1215	3 998	1 428	1 355	33.9	52.7	0	2 033
Iraq	330		330		20	6.1	6.1	0	0
Ireland	441		441		92	20.9	20.9	49	12
Israel	860		860		187	21.7	21.7		21
Italy	9 919		9 919		3 300	33.3	33.3	42	854
Japan	29 948	151	30 099	6 240	16 678	55.4	69.9	561	294
Korea, Republic of	5 275		5 275			0	0		1 963
Latvia	100	82	182	30	35	19.2	23	19	0
Mexico	4 589		4 589		3 395	74	74		1 272
Morocco	281	171	452		35	7.7	7.7		35
Netherlands	4 380		4 380		2 535	57.9	57.9	1 448	1 207
New Zealand	668	-166	502			0	0	31	0
Norway	838		838		453	54.1	54.1	219	53
Portugal	950		950		395	41.6	41.6	56	13
Romania	400	53	453	82	115	25.4	31	0	16
Slovak Republic								11	114
Spain	6 072		6 072		2 635	43.4	43.4	53	815
Sweden	2 155		2 155		1 378	63.9	63.9	169	549
Switzerland	1 638		1 638		1 062	64.8	64.8	210	230
United Kingdom	12 474		12 474		5 028	40.3	40.3	402	58
United States of America	91 751		91 751	9 175	40 893	44.6	49.5	7 364	464

¹ Australia data covers July 1997 to June 1998 and July 1998 to June 1999 instead of 1998 and 1999.

APPENDIX 3 - WASTE PAPER RECOVERY AND UTILIZATION OF RECOVERED PAPER IN PAPER AND PAPERBOARD INDUSTRY (cont.)

Country	1999								
	Apparent consumption of paper and paperboard	Net trade in converted paper and paperboard products	Adjusted consumption of paper and paperboard	Non-recoverable paper and paperboard	Waste paper collected for re-use	Waste paper net recovery rate	Adjusted waste paper net recovery rate	Exports of recovered paper	Imports of recovered paper
	1000 mt	1000 mt	1000 mt	1000 mt	1000 mt	%	%	1000 mt	1000 mt
Australia ¹	3 461		3 461		1 762	50.9	50.9		272
Austria	1 965		1 965		1 304	66.4	66.4		150
Brazil	6 363	28	6 391	1 132	2 384	37.3	45.3	0	2
Canada	12 307	521	12 828			0.0	0.0		503
Chile	219		219		230	105.0	105.0		12
Colombia	1 006	-24	982	158		0.0	0.0	0	2
Czech Republic	865		865		340	39.3	39.3		68
Denmark	1 218		1 218			0.0	0.0		
Finland	1 476		1 476		697	47.2	47.2		94
France	11 453		11 453		5 037	44.0	44.0		997
Germany	17 708		17 708		12 942	73.1	73.1		3 630
Greece	901		901		280	31.1	31.1		
Hungary	641	78	719	128	297	41.3	50.3	63	36
Indonesia	3 105	1 645	4 750	1 905	1 200	25.3	42.2	0	0
Iraq	360		360		22	6.1	6.1	0	0
Ireland	460		460		84	18.3	18.3		
Israel	900		900		186	20.7	20.7		
Italy	10 303		10 303		3 629	35.2	35.2		128
Japan	30 303	166	30 469	6 294	17 183	56.4	71.1		288
Korea, Republic of	6 709		6 709			0.0	0.0		
Latvia	102	83	185	30	35	18.9	22.5	5	24
Mexico	4 963		4 963		3 452	69.5	69.5		
Morocco	290	180	470		35	7.4	7.4		
Netherlands	4 456		4 456		2 525	56.7	56.7		1 600
New Zealand	673	-132	541			0.0	0.0		90
Norway	818		818		534	65.3	65.3		276
Portugal	951		951		433	45.5	45.5		84
Romania	347	70	417	85	192	46.0	57.8	0	0
Slovak Republic	338		338		137	40.5	40.5		15
Spain	6 435		6 435		2 963	46.0	46.0		59
Sweden	2 271		2 271		1 384	60.9	60.9		225
Switzerland	1 719		1 719		1 094	63.6	63.6		
United Kingdom	12 723		12 723		5 136	40.4	40.4		444
United States of America	95 342		95 342	9 534	42 917	45.0	50.0		7 518

¹ Australia data covers July 1997 to June 1998 and July 1998 to June 1999 instead of 1998 and 1999.

APPENDIX 4 - WASTE PAPER RECOVERY AND UTILIZATION OF RECOVERED PAPER IN PAPER AND PAPERBOARD INDUSTRY

Country	1998							
	Recovered paper used for other purpose than paper and paperboard	Recovered paper used for paper and paperboard	Recovered paper used for paper and paperboard	Total fibre used for paper and paperboard	Paper and paperboard production	Recovered paper in fibre use rate	Total fibre / paper and paperboard production	Recovered paper utilization rate
	1000 mt	1000 mt	1000 mt	1000 mt	1000 mt	%	%	%
Australia ¹		1 463			2 542		0	57.6
Austria		1 732		3 543	4 009	48.9	88.4	43.2
Brazil		2 295	344	6 196	6 589	37	94	34.8
Canada		4 801			18 318		0	26.2
Chile								
Colombia		361	67	771	711	46.8	108.4	50.8
Czech Republic		319		765	785	41.7	97.5	40.6
Denmark		415			340		0	122.1
Finland		633		10 390	12 702	6.1	81.8	5
France		4 931		9 189	9 161	53.7	100.3	53.8
Germany		9 917		15 348	16 311	64.6	94.1	60.8
Greece		243		382	322	63.6	118.6	75.5
Hungary	12	310	47	487	434	63.7	112.2	71.4
Indonesia		3 389		6 001	5 487	56.5	109.4	61.8
Iraq	10	8	2	1	3	551.7	54.8	302.6
Ireland		55		55	43	100	127.9	127.9
Israel	10	198			265		0	74.7
Italy		4 112		7 637	8 246	53.8	92.6	49.9
Japan	113	16 377		29 761	29 886	55	99.6	54.8
Korea, Republic of		5 764		7 988	7 750	72.2	103.1	74.4
Latvia	4	2		2	18	100	11.1	11.1
Mexico		3 395	575	4 244	3 669	80	115.7	92.5
Morocco		70	7	117	110	59.8	106.4	63.6
Netherlands		2 266		3 292	3 180	68.8	103.5	71.3
New Zealand		109	100	935	835	11.7	112	13.1
Norway		287		2 271	2 260	12.6	100.5	12.7
Portugal		352		1 117	1 135	31.5	98.4	31
Romania	6	125	98	293	294	42.6	99.7	42.5
Slovak Republic								
Spain		3 396		4 837	4 196	70.2	115.3	80.9
Sweden		1 760		9 763	9 879	18	98.8	17.8
Switzerland		1 082		1 581	1 591	68.4	99.4	68
United Kingdom		4 654		6 724	6 476	69.2	103.8	71.9
United States of America	1 542	32 450			87 386		0	37.1

¹ Australia data covers July 1997 to June 1998 and July 1998 to June 1999 instead of 1998 and 1999.

APPENDIX 4 - WASTE PAPER RECOVERY AND UTILIZATION OF RECOVERED PAPER IN PAPER AND PAPERBOARD INDUSTRY (cont.)

Country	1999							
	Recovered paper used for other purpose than paper and paperboard	Recovered paper used for paper and paperboard	Recovered paper used for paper and paperboard	Total fibre used for paper and paperboard	Paper and paperboard production	Recovered paper in fibre use rate	Total fibre / paper and paperboard production	Recovered paper utilization rate
	1000 mt	1000 mt	1000 mt	1000 mt	1000 mt	%	%	%
Australia ¹		1 536			2 540		0.0	60.5
Austria		1 787		4 255	4 141	42.0	102.8	43.2
Brazil		2 416	362	6 593	6 943	36.6	95.0	34.8
Canada		5 080			19 315		0.0	26.3
Chile								
Colombia		340	61	769	734	44.2	104.8	46.3
Czech Republic		325		797	770	40.8	103.5	42.2
Denmark		419		531	347	78.9	153.0	120.7
Finland		696		10 891	12 948	6.4	84.1	5.4
France		5 277		9 649	9 603	54.7	100.5	55.0
Germany		10 213		15 844	16 742	64.5	94.6	61.0
Greece		320		360	318	88.9	113.2	100.6
Hungary	24	299	45	515	456	58.1	112.9	65.6
Indonesia		3 400		7 581	6 977	44.8	108.7	48.7
Iraq	10	8	2	1	3	965.0	27.9	269.6
Ireland		46		46	43	100.0	107.0	107.0
Israel	4	205			280		0.0	73.2
Italy		4 207		8 168	8 567	51.5	95.3	49.1
Japan	124	17 083		30 394	30 631	56.2	99.2	55.8
Korea, Republic of		6 869		9 532	8 875	72.1	107.4	77.4
Latvia	4	2		2	19	100.0	10.5	10.5
Mexico		3 452	590	4 386	3 796	78.7	115.5	90.9
Morocco		57	6	116	110	49.1	105.5	51.8
Netherlands		2 375		3 520	3 255	67.5	108.1	73.0
New Zealand		190	97	901	805	21.1	111.9	23.6
Norway		293		2 226	2 241	13.2	99.3	13.1
Portugal		364		1 095	1 162	33.2	94.2	31.3
Romania	6	117	94	281	289	41.7	97.3	40.6
Slovak Republic		249		602	603	41.4	99.8	41.3
Spain		3 609		5 042	4 435	71.6	113.7	81.4
Sweden		1 834		9 861	10 071	18.6	97.9	18.2
Switzerland		1 112		1 683	1 754	66.1	96.0	63.4
United Kingdom		4 753		6 651	6 575	71.5	101.2	72.3
United States of America	1 814	33 767			89 292		0.0	37.8

¹ Australia data covers July 1997 to June 1998 and July 1998 to June 1999 instead of 1998 and 1999.

APPENDIX 5 – EXPORTS OF RECOVERED PAPER BY COUNTRY OF DESTINATION IN 1998
(1000 t)

To	From	Austria	Belgium	Brazil	Canada	Czech Republic	Finland	France	Germany	Greece	Hungary	Italy	Japan
Austria			1.0			1.0	1.2	1.0	416.0		1.0	0.3	
Belarus							1.4		4.0				
Belgium							0.1	17.0	134.0			0.0	
Bulgaria									8.0			3.3	
Croatia		9.0							22.0		2.0	16.5	
Czech Republic		2.0							56.0				
Denmark									41.0				
Estonia							0.6						
Federal Republic of Yugoslavia								1.0	2.0		8.0		
Finland													
Former Yugoslav Rep. of Macedonia		1.0											
France			249.6				0.7		415.0			0.6	
Germany		33.0	122.9			1.2	47.7	110.0					
Greece									4.0			0.0	
Hungary		2.0				1.4	0.1		56.0				
Ireland													
Italy		22.0	3.3		6.0			101.0	419.0				
Lithuania							0.1						
Netherlands		1.0	339.8				1.1	23.0	627.0			1.8	
Norway							2.4		1.0				
Poland		1.0						1.0	6.0			0.0	
Portugal			0.2				0.1	2.0				0.0	
Romania							0.1		1.0		3.0	0.0	
Russia							5.7						
Slovak Republic		4.0				48.7			34.0		4.0		
Slovenia		13.0				5.8			50.0		3.0	9.2	
Spain			2.2				0.1	510.0	79.0			0.1	
Sweden						1.2	16.2		145.0				
Switzerland		4.0	1.5				2.6	45.0	162.0			0.5	
Turkey		0.0					0.3	1.0				2.2	
Ukraine						0.5	1.5				10.0		
United Kingdom			15.5				1.4	5.0	4.0			0.1	
Europe										8.0			
Canada								2.0					
United States of America			9.8		405.0		0.2		2.0			0.0	
Mexico													
Venezuela								1.0					
Australia													
India			63.4						38.0			0.1	
China			64.1		41.0			1.0	16.0				32.0
China Hong Kong			39.9						11.0				16.0
Indonesia			215.8				3.3		156.0			1.0	39.0
Japan							0.1						
Malaysia			11.0			0.2							
Philippines			5.3		6.0		0.7	1.0	15.0				15.0
Korea, Republic of			58.9		14.0			8.0	30.0			0.1	155.0
China Taiwan			61.0				0.2		168.0				196.0
Thailand			42.3				1.5	1.0	156.0				96.0
Viet Nam								1.0					
Others			18.0	4.0	62.0	0.0	1.0	0.0	33.0	2.0		6.0	11.0
Grand Total		92.0	1 325.5	4.0	534.0	60.0	90.4	832.0	3 311.0	10.0	31.0	41.8	560.0

APPENDIX 5 – EXPORTS OF RECOVERED PAPER BY COUNTRY OF DESTINATION IN 1998
(1000 t) (cont.)

To	From	Latvia	Nether-lands	New Zealand	Norway	Portugal	Slovak Republic	Spain	Sweden	Switzer-land	United Kingdom	United States of America	Total
Austria			4.0		0.0		1.1	0.2	7.0	46.4	3.0		483.2
Belarus		4.0							0.0				9.4
Belgium			84.0		0.0			0.0	0.0		1.0		236.1
Bulgaria									0.0				11.3
Croatia									0.0				49.5
Czech Republic							0.0		0.0	0.2			58.2
Denmark			1.0		24.7			0.0	15.0				81.7
Estonia									0.0				0.6
Federal Republic of Yugoslavia									0.0				11.0
Finland					0.0			0.1	25.0	0.0			25.1
Former Yugoslav Rep. of Macedonia									0.0				1.0
France			107.0		7.5	0.1		3.6	1.0	52.9	61.0		899.0
Germany			420.0		1.1			3.5	31.0	25.9	53.0		849.3
Greece					0.1			0.0	0.0				4.1
Hungary							0.0		0.0				59.5
Ireland								0.0	1.0		5.0		6.0
Italy			3.0		0.2			11.0	22.0	79.2	21.0	65.0	752.7
Lithuania		3.0							0.0				3.1
Netherlands					0.2			0.0	1.0	4.0	58.0		1 056.9
Norway			1.0						40.0		2.0		46.4
Poland									2.0				10.0
Portugal								1.5	0.0				3.8
Romania									0.0				4.1
Russia									0.0				5.7
Slovak Republic									0.0				90.7
Slovenia									1.0	0.5	2.0		84.5
Spain			3.0			52.0			8.0	0.7	10.0		665.1
Sweden			24.0		81.7			0.0	0.0		83.0		351.1
Switzerland			2.0						2.0		2.0		221.6
Turkey			1.0						0.0				4.5
Ukraine		12.0					10.0		0.0				34.0
United Kingdom			41.0		0.3			0.0	0.0	0.1			67.4
Europe													
Canada			2.0					0.1	0.0			2 187.0	2 191.1
United States of America			28.0		2.0			0.0	0.0		1.0		448.0
Mexico								0.0	0.0			1 123.0	1 123.0
Venezuela								0.0	0.0			128.0	129.0
Australia				5.0									5.0
India			100.0						1.0		7.0	261.0	470.5
China			42.0						7.0		2.0	1 000.0	1 205.1
China Hong Kong			22.0						0.0		2.0		90.9
Indonesia			305.0	9.0					1.0		36.0	339.0	1 105.1
Japan									0.0			228.0	228.1
Malaysia			3.0	1.0					0.0		1.0		16.2
Philippines			14.0	3.0					0.0		1.0	88.0	149.0
Korea, Republic of			130.0	2.0					1.0		40.0	1 020.0	1 459.0
China Taiwan			41.0						2.0		1.0	318.0	787.2
Thailand			35.0	9.0					0.0			213.0	553.8
Viet Nam									0.0				1.0
Others			35.0	2.0	101.0	1.0		32.8	1.0	0.1	11.0	379.0	699.9
Grand Total		19.0	1 448.0	31.0	218.8	53.1	11.1	52.8	169.0	210.0	403.0	7 349.0	16 848.5

APPENDIX 6 – EXPORTS OF RECOVERED PAPER BY COUNTRY OF DESTINATION IN 1999
(1000 t)

To	From	Austria	Belgium	Brazil	Canada	Colombia	Czech Republic	Finland	France	Germany	Hungary	Italy	Japan
Austria			2.6				4.5	0.0	2.0	390.0	2.0	10.7	
Belarus								1.6					
Belgium								0.2	28.0	275.0		0.1	
Bosnia and Herzegovina		1.0										0.0	
Bulgaria										1.0		0.0	
Croatia		23.0								12.0	1.0	23.3	
Czech Republic		8.0								55.0			
Denmark										38.0			
Estonia								0.8					
Federal Republic of Yugoslavia										3.0	10.0	0.0	
Finland													
Former Yugoslav Rep. of Madedonia		1.0											
France			278.9					0.8		419.0		1.2	
Germany		68.0	100.2				7.1	32.6	141.0			0.6	
Greece										2.0		0.1	
Hungary		2.0					1.1			53.0		0.0	
Ireland													
Italy		21.0	3.2		7.0		0.2	0.2	104.0	260.0			
Latvia								1.0					
Lithuania								0.1					
Moldova												2.0	
Netherlands		2.0	393.7				0.4	4.2	42.0	671.0		4.1	
Norway								2.5				0.0	
Poland									1.0	1.0			
Portugal									16.0	1.0			
Romania										1.0	2.0	0.2	
Russia								19.2				0.0	
Slovak Republic		0.0					53.9			50.0	4.0		
Slovenia		22.0					0.4		1.0	50.0	3.0	41.2	
Spain									417.0	47.0		0.1	
Sweden							0.2	11.9		152.0			
Switzerland		2.0	1.3					2.5	51.0	89.0		0.9	
Turkey		0.0	0.4									20.4	
Ukraine							0.3	0.9			14.0		
United Kingdom			15.7					3.7	52.0	17.0		0.8	
Canada									2.0				
United States of America			16.0		372.0					2.0		0.0	
Mexico													
Uruguay				2.0									
Venezuela						1.0							
Australia													
India			131.7					0.5	9.0	85.0		0.6	
China			170.1		75.0			1.4	3.0	34.0		0.9	12.0
China Hong Kong			21.2							3.0			0.0
Indonesia			323.9					0.9	42.0	227.0		11.5	1.0
Japan													0.0
Malaysia			9.0				0.1		13.0			0.5	
Philippines			6.1		4.0					22.0			23.0
Korea, Republic of					31.0			1.3	38.0	157.0		1.0	50.0
China Taiwan			73.7					1.0	26.0	312.0		1.4	95.0
Thailand			59.1					0.4	6.0	183.0		0.0	107.0
Viet Nam													
Others *		0.1	102.0		14.0	1.0		6.0	3.0	18.0		6.0	1.0
Grand Total		150.1	1 708.8	2.0	503.0	2.0	68.2	93.7	997.0	3 630.0	36.0	127.6	289.0

* Including Africa, Oceania, New Zealand, Polar Regions, others.

APPENDIX 6 – EXPORTS OF RECOVERED PAPER BY COUNTRY OF DESTINATION IN 1999
(1000 t) (cont.)

To	From	Latvia	Netherlands	New Zealand	Norway	Portugal	Slovak Republic	Spain	Sweden	United Kingdom	United States of America	Total
Austria			4.0				1.2	0.0	6.0	7.0		430.0
Belarus		5.0							0.0			6.6
Belgium			52.0		0.1			0.0	1.0			356.4
Bosnia and Herzegovina									0.0			1.0
Bulgaria									0.0			1.0
Croatia									0.0			59.3
Czech Republic							1.0		1.0			65.0
Denmark			1.0		22.7			0.0	11.0			72.7
Estonia									1.0			1.8
Federal Republic of Yugoslavia									0.0			13.0
Finland					0.0			0.0	31.0			31.0
Former Yugoslav Rep. of Madedonia									0.0			1.0
France			80.0		2.3			7.0	1.0	84.0		874.2
Germany			386.0		1.9			3.9	35.0	41.0		817.3
Greece					0.0			0.0	0.0			2.1
Hungary							1.0		0.0			57.1
Ireland					0.0			0.0	1.0	6.0		7.0
Italy			4.0	1.0	0.3			12.9	22.0	17.0	88.0	540.8
Latvia									2.0			3.0
Lithuania		7.0							3.0			10.1
Moldova									0.0			2.0
Netherlands					1.9			0.0	1.0	75.0		1 195.3
Norway			2.0						25.0	2.0		31.5
Poland									1.0			3.0
Portugal					0.0			10.9	0.0			27.9
Romania									0.0			3.2
Russia		2.0							0.0			21.2
Slovak Republic									0.0			107.9
Slovenia									0.0			117.6
Spain			2.0		0.0	84.3			4.0	4.0	21.0	579.4
Sweden			7.0		127.5			0.0	0.0	78.0		376.6
Switzerland			3.0						2.0	2.0		153.7
Turkey			2.0						0.0	1.0		23.8
Ukraine		11.0					12.0		0.0			38.2
United Kingdom			43.0		0.2			0.5	5.0			137.9
Canada								0.0	0.0		2 083.0	2 085.0
United States of America			23.0		2.0	0.0			1.0	1.0		417.0
Mexico									0.0		916.0	916.0
Uruguay												2.0
Venezuela									0.0		94.0	95.0
Australia				42.0								42.0
India			185.0	1.0					1.0	18.0	287.0	718.8
China			70.0						3.0	5.0	1 187.0	1 561.4
China Hong Kong			15.0						1.0	1.0		41.2
Indonesia			354.0	19.0					3.0	37.0	373.0	1392.3
Japan				1.0					0.0	1.0	231.0	233.0
Malaysia				12.0	8.0				2.0	5.0		49.6
Philippines			27.0	1.0					0.0	3.0	121.0	207.1
Korea, Republic of			183.0	2.0					7.0	30.0	1 217.0	1 717.3
China Taiwan			69.0						2.0	7.0	290.0	877.1
Thailand			49.0	4.0					3.0	2.0	268.0	681.5
Viet Nam				1.0					0.0			1.0
Others *			39.0	6.0	109.0	0.0		23.7	49.0	17.0	342.0	736.8
Grand Total		25.0	1 600.0	90.0	275.9	84.3	15.2	58.9	225.0	444.0	7 518.0	17 943.7

* Including Africa, Oceania, New Zealand, Polar Regions, others.

APPENDIX 7 – IMPORTS OF RECOVERED PAPER BY COUNTRY OF ORIGIN IN 1998
(1000 t)

From	To	Austria	Belgium	Brazil	Canada	Chile	Colombia	Czech Republic	Denmark	Finland	France	Germany	Greece	Hungary	Italy	Japan
Austria			0.5					1.3				37.0		2.0	20.5	
Belgium		1.0									327.0	80.0			5.8	
Czech Republic		1.0										1.0		2.0	0.1	
Denmark		3.0										119.0			10.4	
Estonia										0.9						
Finland		0.0						0.1				42.0			0.1	
France		1.0	28.1									112.0			115.6	
Germany		591.0	135.1					41.7		28.3	486.0			58.0	21.5	
Greece															2.1	
Hungary		1.0														
Iceland																
Ireland															0.0	
Italy		1.0	0.2								3.0	6.0				
Netherlands		14.0	243.8							1.0	178.0	556.0			468.9	
Norway		0.0							3.0	0.5		1.0			0.3	
Poland		0.0						0.1				3.0				
Portugal											1.0					
Russia			0.1							1.4						
Slovak Republic		2.0						0.9							0.0	
Spain											3.0	8.0			11.1	
Sweden		8.0	0.6							23.8	1.0	31.0			18.5	
Switzerland		35.0	0.2					0.2			54.0	25.0			45.1	
United Kingdom		3.0	14.3								94.0	41.0			44.9	
Others European									65.0				30.0			
Canada			0.4								3.0	1.0			14.0	2.0
United States of America		0.0	4.2	1.0	2 221.0		3.0			2.3	5.0	1.0			62.7	282.0
Argentina				2.0												
Chile							1.0									
Mexico															0.0	6.0
Venezuela							4.0									
Paraguay				13.0												
Uruguay				3.0												
Japan																
Korea, Republic of				2.0												
Others *				1.0	5.0	2.0	19.0	0.0	15.0		1.0		15.0		11.0	5.0
Grand Total		661.0	427.5	22.0	2 226.0	2.0	27.0	44.3	83.0	58.2	1 156.0	1 064.0	45.0	62.0	852.6	295.0

* Including Africa, Oceania, New Zealand, Polar Regions, others.

**APPENDIX 7 – IMPORTS OF RECOVERED PAPER BY COUNTRY OF ORIGIN IN 1998
(1000 t) (cont.)**

From	To	Korea, Republic of	Madagascar	Mexico	Morocco	Netherlands	Norway	Portugal	Romania	Slovak Republic	Spain	Sweden	Switzerland	United Kingdom	United States of America	Total
Austria							0.0			5.0	0.2	0.0	8.5			75.0
Belgium	24.0					325.0	0.0	0.2			5.0	11.0	1.1			780.1
Czech Republic							0.0			52.0		1.0				57.1
Denmark						3.0	3.7				0.0	161.0	0.6			300.7
Estonia							0.0					0.0				0.9
Finland						2.0	2.3				0.0	17.0	1.3	3.0		67.8
France	3.0	1.0				72.0	0.0	1.8			567.9	0.0	39.8	1.0		943.2
Germany	40.0			2.0	659.0	0.9	4.4	12.0	54.0	105.5	113.0	169.6	2.0			2 524.0
Greece							0.0				0.0	0.0				2.1
Hungary							0.0		4.0	3.0		0.0				8.0
Iceland				3.0	1.0	0.0						5.0				9.0
Ireland					6.0	0.0					0.6	0.0		39.0		45.6
Italy				1.0		0.0					0.1	11.0	0.7			23.0
Netherlands	164.0						0.5				5.4	33.0	4.4	3.0		1 672.0
Norway	21.0						0.0				4.0	124.0	0.1			153.9
Poland							0.0			0.0		1.0				4.1
Portugal							0.0				71.3	0.0				72.3
Russia							0.0					0.0		1.0		2.5
Slovak Republic							0.0					0.0				2.9
Spain				28.0			0.0	1.3				0.0				51.4
Sweden	1.0				2.0	41.2					4.4	0.0	1.6	2.0		135.1
Switzerland							0.0					0.0				159.5
United Kingdom	62.0			1.0	86.0	2.2					8.7	73.0	1.9			432.0
Others European																
Canada	23.0				1.0						1.4	0.0		1.0	447.0	493.8
United States of America	1 421.0		1 272.0		50.0	0.0	5.0				37.8	0.0	0.0	6.0		5 374.0
Argentina							0.0				0.0	0.0				2.0
Chile							0.0				0.2	0.0				1.2
Mexico							0.0				0.0	0.0			15.0	21.0
Venezuela							0.0				0.0	0.0				4.0
Paraguay																13.0
Uruguay																3.0
Japan	165.0											0.0				165.0
Korea, Republic of												0.0				2.0
Others *	39.0	3.0		1.0		2.0					2.2	0.0			1.0	122.2
Grand Total	1 963.0	4.0	1 272.0	36.0	1 207.0	52.8	12.7	16.0	114.0	814.7	550.0	229.5	58.0	463.0	13 818	

* Including Africa, Oceania, New Zealand, Polar Regions, others.

**APPENDIX 8 – IMPORTS OF RECOVERED PAPER BY COUNTRY OF ORIGIN IN 1999
(1000 t)**

From	To	Austria	Belgium	Brazil	Canada	Colombia	Czech Republic	Denmark	Finland	France	Germany	Greece	Hungary	Italy	Japan	Korea, Republic of
Austria			0.5				1.3				39.0		2.0	20.5		
Belgium		1.0								327.0	67.0			5.8		21.0
Czech Republic		1.0									6.0		2.0	0.1		
Denmark		3.0									110.0			10.4		
Estonia									0.9							
Finland		0.0					0.1				25.0			0.1		2.0
France		1.0	28.1								85.0			115.6		40.0
Germany		591.0	135.1				41.7		28.3	486.0			58.0	21.5		113.0
Greece														2.1		
Hungary		1.0														
Iceland																
Ireland														0.0		
Italy		1.0	0.2							3.0	25.0					
Netherlands		14.0	243.8						1.0	178.0	476.0			468.9		233.0
Norway		0.0						3.0	0.5		3.0			0.3		37.0
Poland		0.0					0.1				5.0					
Portugal										1.0	1.0					
Russia			0.1						1.4							
Spain										3.0	1.0			11.1		
Slovak Republic		2.0					0.9							0.0		
Sweden		8.0	0.6						23.8	1.0	45.0			18.5		2.0
Switzerland		35.0	0.2				0.2			54.0	42.0			45.1		
United Kingdom		3.0	14.3	2.0						94.0	45.0			44.9	2.0	117.0
Canada			0.4							3.0	1.0			14.0	3.0	27.0
United States of America		0.0	4.2	14.0	1 431.0	7.0			2.3	5.0	1.0			62.7	281.0	1 598.0
Chile						4.0										
Mexico														0.0	8.0	2.0
Venezuela						6.0										
Uruguay				5.0												
Paraguay				12.0												
China																2.0
Indonesia																50.0
Others Asian														10.3	7.0	79.0
Others *				1.0	5.0	22.0	0.0	15.0		1.0	3.0	15.0		1.4		2.0
Grand Total		661.0	427.5	34.0	1 436.0	39.0	44.3	18.0	58.2	1 156.0	980.0	15.0	62.0	853.3	301.0	2 325.0

* Including Africa, Oceania, New Zealand, Polar Regions, others.

**APPENDIX 8 – IMPORTS OF RECOVERED PAPER BY COUNTRY OF ORIGIN IN 1999
(1000 t) (cont.)**

From	To	Latvia	Madagascar	Mexico	Morocco	Netherlands	Norway	Portugal	Romania	Slovak Republic	Spain	Sweden	Switzerland	United Kingdom	United States of America	Total
Austria							0.0			5.0	0.2	0.0	8.5			77.0
Belgium						284.0	0.0	0.2			5.0	11.0	1.1			723.1
Czech Republic							0.0			52.0		1.0				62.1
Denmark							3.7				0.0	161.0	0.6			288.7
Estonia							0.0					0.0				0.9
Finland						2.0	2.3				0.0	17.0	1.3	3.0		52.8
France			1.0			83.0	0.0	1.8			567.9	0.0	39.8	1.0		964.2
Germany						930.0	0.9	4.4	4.0	54.0	105.5	113.0	169.6	2.0		2 858.0
Greece							0.0				0.0	0.0				2.1
Hungary							0.0		3.0	3.0		0.0				7.0
Iceland						2.0	0.0					5.0				7.0
Ireland						4.0	0.0				0.6	0.0		39.0		43.6
Italy							0.0				0.1	11.0	0.7			41.0
Netherlands							0.5				5.4	33.0	4.4	3.0		1 661.0
Norway						2.0	0.0				4.0	124.0	0.1			173.9
Poland							0.0			0.0		1.0				6.1
Portugal							0.0				71.3	0.0				73.3
Russia							0.0					0.0		1.0		2.5
Spain					22.0		0.0	1.3				0.0				38.4
Slovak Republic							0.0					0.0				2.9
Sweden			1.0			5.0	41.2				4.4	0.0	1.6	2.0		154.1
Switzerland							0.0					0.0				176.5
United Kingdom						109.0	2.2				8.7	73.0	1.9			517.0
Canada											1.4	0.0		1.0	371.0	421.8
United States of America				1 165.0		29.0	0.0	5.0			37.8	0.0	0.0	6.0		4 649.0
Chile							0.0				0.2	0.0				4.2
Mexico							0.0				0.0	0.0			13.0	23.0
Venezuela							0.0				0.0	0.0				6.0
Uruguay																5.0
Paraguay																12.0
China												0.0				2.0
Indonesia												0.0	0.0			50.0
Others Asian												0.0			1.0	97.3
Others *		1.0	2.0				2.0				2.2	0.0				72.6
Grand Total		1.0	4.0	1 165.0	22.0	1 450.0	52.8	12.7	7.0	114.0	814.7	550.0	229.6	58.0	385.0	13 276

* Including Africa, Oceania, New Zealand, Polar Regions, others.