

## Appendix 4.1

Characterised and weighted results – Printed newspaper, European scenario

### Appendix 4.1 Characterised and weighted results – Printed newspaper, European scenario

In the table below the characterised and weighted results for the studied system “Printed Newspaper”, European scenario are presented.

Input	TOTAL	Editorial work	Newsprint production	Paper transport	Prepress	Printing	Distribution	Reading	Incineration	Landfill
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	2,00E-01	2,02E-02	1,03E-01	1,14E-02	1,59E-02	4,05E-02	1,08E-02	0,00E+00	-2,32E-03	5,66E-04
EI99, HA, Ecosystem quality, Land conversion [PDF*m2]	1,17E-02	3,60E-04	9,97E-03	4,98E-04	2,89E-04	1,13E-03	0,00E+00	0,00E+00	-2,92E-05	-5,57E-04
EI99, HA, Ecosystem quality, Land-use [PDF*m2*a]	6,07E-01	1,24E-03	2,67E-01	2,48E-03	1,08E-03	3,34E-01	0,00E+00	0,00E+00	-5,49E-05	1,10E-03
EI99, HA, Resources, Fossil fuels [MJ surplus energy]	3,61E+01	2,50E+00	1,87E+01	2,25E+00	2,01E+00	8,42E+00	2,54E+00	0,00E+00	-3,80E-01	1,30E-01
EI99, HA, Resources, Minerals [MJ surplus energy]	5,79E-01	2,35E-02	3,59E-01	9,21E-02	3,96E-02	6,32E-02	2,77E-07	0,00E+00	-6,91E-04	2,32E-03
Abiotic resources exergy energy [MJ]	6,19E+02	7,16E+01	3,25E+02	3,03E+01	5,64E+01	1,18E+02	2,27E+01	0,00E+00	-6,51E+00	1,36E+00
Abiotic resources exergy gravel [MJ]	6,19E+02	7,16E+01	3,25E+02	3,03E+01	5,64E+01	1,18E+02	2,27E+01	0,00E+00	-6,51E+00	1,36E+00
Biotic exergy resource [MJ]	2,45E+02	8,12E+00	2,20E+02	1,33E+00	6,40E+00	9,16E+00	4,67E-03	0,00E+00	-1,92E-01	4,93E-02
Non-renewable energy resources [MJ]	6,14E+02	7,15E+01	3,21E+02	2,96E+01	5,62E+01	1,18E+02	2,27E+01	0,00E+00	-6,51E+00	1,34E+00
Renewable energy resources [MJ]	2,45E+02	8,12E+00	2,20E+02	1,33E+00	6,40E+00	9,16E+00	4,67E-03	0,00E+00	-1,92E-01	4,93E-02
Total energy resources, SUM [MJ]	8,59E+02	7,96E+01	5,42E+02	3,09E+01	6,26E+01	1,27E+02	2,27E+01	0,00E+00	-6,70E+00	1,39E+00

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### Characterised and weighted results – Printed newspaper, European scenario

Output	TOTAL	Editorial work	Newsprint production	Paper transport	Prepress	Printing	Distribution	Reading	Incineration	Landfill
CML2001, Acidification Potential (AP) [kg SO <sub>2</sub> -Equiv.]	1,50E-01	1,44E-02	8,15E-02	1,14E-02	1,14E-02	1,91E-02	1,13E-02	0,00E+00	-2,30E-04	1,38E-03
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	2,12E-02	9,46E-04	1,11E-02	2,15E-03	7,51E-04	3,06E-03	1,80E-03	0,00E+00	3,50E-05	1,41E-03
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	3,41E+00	1,54E-01	2,50E+00	1,48E-01	1,22E-01	2,05E-01	2,00E-03	0,00E+00	5,54E-02	2,17E-01
CML2001, GWP 100 years, no biotic CO <sub>2</sub> [kg CO <sub>2</sub> -Equiv.]	2,80E+01	3,03E+00	1,30E+01	1,66E+00	2,38E+00	4,29E+00	1,64E+00	0,00E+00	-3,84E-01	2,36E+00
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	6,29E+00	4,97E-01	4,00E+00	3,29E-01	4,61E-01	9,00E-01	3,19E-02	0,00E+00	1,46E-02	5,40E-02
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	1,34E+04	1,91E+03	7,54E+03	4,95E+02	1,51E+03	1,89E+03	1,34E+01	0,00E+00	-4,03E+01	1,19E+02
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	2,52E-06	1,18E-07	1,03E-06	1,78E-07	9,53E-08	5,23E-07	5,85E-07	0,00E+00	-2,34E-08	1,27E-08
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	2,20E-02	9,34E-04	8,42E-03	1,44E-03	7,42E-04	6,14E-03	3,68E-03	0,00E+00	-1,43E-05	6,71E-04
CML2001, Radioactive Radiation (RAD) [DALY]	3,91E-07	5,93E-08	2,12E-07	1,72E-08	4,76E-08	5,73E-08	5,49E-11	0,00E+00	-2,68E-09	4,10E-10
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	1,90E-01	1,55E-02	1,23E-01	9,12E-03	1,22E-02	3,05E-02	3,00E-04	0,00E+00	-7,48E-04	7,85E-04
EI99, HA, Ecosystem quality, Acidification/nitrification [PDF*m <sup>2</sup> *a]	5,71E-01	4,13E-02	2,83E-01	6,72E-02	3,27E-02	6,32E-02	7,97E-02	0,00E+00	9,95E-04	2,75E-03
EI99, HA, Ecosystem quality, Ecotoxicity [PDF*m <sup>2</sup> *a]	7,25E-01	2,96E-02	5,02E-01	6,13E-02	3,04E-02	7,01E-02	6,66E-04	0,00E+00	5,15E-03	2,62E-02
EI99, HA, Ecosystem quality, Land-use [PDF*m <sup>2</sup> *a]	3,13E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,13E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EI99, HA, Human health, Carcinogenic effects [DALY]	3,20E-06	1,82E-07	1,99E-06	5,93E-07	1,51E-07	2,17E-07	7,68E-09	0,00E+00	3,18E-09	5,27E-08
EI99, HA, Human health, Climate Change [DALY]	7,51E-06	6,61E-07	3,93E-06	3,50E-07	5,20E-07	7,92E-07	3,43E-07	0,00E+00	3,23E-07	5,94E-07

## Appendix 4.1

### Characterised and weighted results – Printed newspaper, European scenario

Output	TOTAL	Editorial work	Newsprint production	Paper transport	Prepress	Printing	Distribution	Reading	Incineration	Landfill
EI99, HA, Human health, Ozone layer depletion [DALY]	2,66E-09	1,24E-10	1,09E-09	1,87E-10	1,01E-10	5,51E-10	6,14E-10	0,00E+00	-2,45E-11	1,33E-11
EI99, HA, Human health, Radiation [DALY]	3,91E-07	5,93E-08	2,12E-07	1,72E-08	4,76E-08	5,73E-08	5,49E-11	0,00E+00	-2,68E-09	4,10E-10
EI99, HA, Human health, Respiratory (inorganic) [DALY]	1,89E-05	1,59E-06	1,03E-05	2,16E-06	1,26E-06	2,02E-06	1,46E-06	0,00E+00	-6,17E-09	8,68E-08
EI99, HA, Human health, Respiratory (organic) [DALY]	4,87E-08	6,09E-10	9,38E-09	1,96E-09	4,91E-10	2,74E-08	7,54E-09	0,00E+00	-7,70E-11	1,39E-09
Weighted results	TOTAL	Editorial work	Newsprint production	Paper transport	Prepress	Printing	Distribution	Reading	Incineration	Landfill
Ecotax 02 min version (SEK)										
Output and <b>Total</b>	2,72E+02	1,51E+01	1,90E+02	1,25E+01	1,21E+01	2,27E+01	1,69E+00	0,00E+00	3,02E+00	1,50E+01
Ecotax 02 max version (SEK)										
Input	2,03E+02	2,20E+01	1,13E+02	9,19E+00	1,74E+01	3,61E+01	6,80E+00	0,00E+00	-1,97E+00	4,12E-01
Output	8,64E+03	1,18E+03	4,92E+03	3,22E+02	9,35E+02	1,18E+03	1,15E+01	0,00E+00	-1,79E+01	1,01E+02
<b>Total</b>	8,84E+03	1,21E+03	5,03E+03	3,32E+02	9,52E+02	1,22E+03	1,83E+01	0,00E+00	-1,98E+01	1,02E+02
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)										
Input	1,01E+00	6,09E-02	5,58E-01	5,59E-02	4,95E-02	2,29E-01	6,05E-02	0,00E+00	-9,23E-03	3,19E-03
Output	8,83E-01	7,04E-02	4,88E-01	9,11E-02	5,64E-02	9,37E-02	5,35E-02	0,00E+00	8,72E-03	2,14E-02
<b>Total</b>	1,89E+00	1,31E-01	1,05E+00	1,47E-01	1,06E-01	3,23E-01	1,14E-01	0,00E+00	-5,07E-04	2,45E-02

## Appendix 4.2

Characterised and weighted results – Printed newspaper, Swedish scenario

### Appendix 4.2 Characterised and weighted results – Printed newspaper, Swedish scenario

In the table below the characterised and weighted results for the studied system “Printed Newspaper”, Swedish scenario are presented.

Input	TOTAL	Editorial work	Newsprint production	Paper transport	Prepress	Printing	Distribution	Reading	Paper recycling	Incineration
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	1,58E-01	6,09E-03	7,01E-02	4,20E-03	5,45E-03	3,10E-02	3,72E-02	0,00E+00	6,66E-03	-2,15E-03
EI99, HA, Ecosystem quality, Land conversion [PDF*m2]	1,27E-02	1,29E-04	9,47E-03	2,91E-04	1,17E-04	9,79E-04		0,00E+00	1,72E-03	-5,23E-05
EI99, HA, Ecosystem quality, Land-use [PDF*m2*a]	5,55E-01	1,33E-03	2,67E-01	4,36E-04	1,16E-03	3,34E-01		0,00E+00	-4,88E-02	-1,05E-04
EI99, HA, Resources, Fossil fuels [MJ surplus energy]	3,56E+01	7,84E-01	1,46E+01	9,36E-01	7,36E-01	7,27E+00	8,72E+00	0,00E+00	2,91E+00	-3,65E-01
EI99, HA, Resources, Minerals [MJ surplus energy]	5,20E-01	2,25E-02	3,57E-01	2,77E-02	4,03E-02	6,38E-02	9,48E-07	0,00E+00	1,02E-02	-1,62E-03
Abiotic resources exergy energy [MJ]	4,53E+02	2,89E+01	2,27E+02	9,71E+00	2,46E+01	8,94E+01	7,77E+01	0,00E+00	2,97E+00	-6,80E+00
Abiotic resources exergy gravel [MJ]	4,54E+02	2,89E+01	2,27E+02	9,71E+00	2,46E+01	8,94E+01	7,77E+01	0,00E+00	2,98E+00	-6,80E+00
Biotic exergy resource [MJ]	2,60E+02	2,61E+01	2,62E+02	7,68E-01	1,99E+01	2,13E+01	1,60E-02	0,00E+00	-6,88E+01	-1,14E+00
Non-renewable energy resources [MJ]	4,49E+02	2,88E+01	2,23E+02	9,59E+00	2,44E+01	8,90E+01	7,77E+01	0,00E+00	2,83E+00	-6,80E+00
Renewable energy resources [MJ]	2,60E+02	2,61E+01	2,62E+02	7,68E-01	1,99E+01	2,13E+01	1,60E-02	0,00E+00	-6,88E+01	-1,14E+00
Total energy resources, SUM [MJ]	6,98E+02	5,49E+01	4,85E+02	1,04E+01	4,43E+01	1,10E+02	7,77E+01	0,00E+00	-6,60E+01	-7,94E+00

## Appendix 4.2

### Characterised and weighted results – Printed newspaper, Swedish scenario

Output	TOTAL	Editorial work	Newsprint production	Paper transport	Prepress	Printing	Distribution	Reading	Paper recycling	Incineration
CML2001, Acidification Potential (AP) [kg SO <sub>2</sub> -Equiv.]	1,15E-01	3,01E-03	5,59E-02	4,11E-03	2,89E-03	1,14E-02	3,88E-02	0,00E+00	-1,72E-03	2,98E-04
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	2,27E-02	3,52E-04	9,74E-03	8,98E-04	3,09E-04	2,66E-03	6,16E-03	0,00E+00	2,45E-03	1,33E-04
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	3,59E+00	3,00E-02	2,23E+00	3,39E-02	2,97E-02	1,22E-01	6,85E-03	0,00E+00	1,02E+00	1,15E-01
CML2001, GWP 100 years, no biotic CO <sub>2</sub> [kg CO <sub>2</sub> -Equiv.]	1,97E+01	8,90E-01	8,09E+00	5,75E-01	7,93E-01	2,86E+00	5,61E+00	0,00E+00	1,21E+00	-3,75E-01
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	4,90E+00	1,79E-01	3,30E+00	7,91E-02	2,28E-01	6,90E-01	1,10E-01	0,00E+00	2,58E-01	5,80E-02
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	6,54E+03	5,53E+02	4,45E+03	7,41E+01	4,97E+02	9,74E+02	4,59E+01	0,00E+00	-5,16E+01	-5,03E+00
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	3,67E-06	5,27E-08	8,92E-07	7,87E-08	4,67E-08	4,80E-07	2,00E-06	0,00E+00	1,64E-07	-5,34E-08
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	2,64E-02	2,57E-04	6,91E-03	6,09E-04	2,38E-04	5,69E-03	1,26E-02	0,00E+00	6,93E-05	1,80E-05
CML2001, Radioactive Radiation (RAD) [DALY]	2,31E-07	3,50E-08	1,57E-07	3,01E-09	2,94E-08	4,10E-08	1,88E-10	0,00E+00	-3,03E-08	-4,74E-09
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	1,76E-01	1,13E-02	1,13E-01	2,29E-03	9,77E-03	2,84E-02	1,03E-03	0,00E+00	1,10E-02	-1,27E-03
EI99, HA, Ecosystem quality, Acidification/nitrification [PDF*m <sup>2</sup> *a]	5,86E-01	1,16E-02	2,15E-01	2,71E-02	1,06E-02	4,32E-02	2,73E-01	0,00E+00	4,33E-04	4,94E-03
EI99, HA, Ecosystem quality, Ecotoxicity [PDF*m <sup>2</sup> *a]	6,89E-01	2,02E-02	4,81E-01	2,76E-02	2,43E-02	6,46E-02	2,28E-03	0,00E+00	5,77E-02	1,07E-02
EI99, HA, Ecosystem quality, Land-use [PDF*m <sup>2</sup> *a]	3,13E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,13E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EI99, HA, Human health, Carcinogenic effects [DALY]	2,78E-06	7,90E-08	1,77E-06	3,04E-07	7,69E-08	1,50E-07	2,63E-08	0,00E+00	3,67E-07	9,56E-09
EI99, HA, Human health, Climate Change [DALY]	6,23E-06	3,04E-07	3,11E-06	1,24E-07	2,55E-07	5,53E-07	1,17E-06	0,00E+00	-1,27E-08	7,25E-07

## Appendix 4.2

### Characterised and weighted results – Printed newspaper, Swedish scenario

Output	TOTAL	Editorial work	Newsprint production	Paper transport	Prepress	Printing	Distribution	Reading	Paper recycling	Incineration
EI99, HA, Human health, Ozone layer depletion [DALY]	3,86E-09	5,56E-11	9,40E-10	8,27E-11	4,93E-11	5,05E-10	2,10E-09	0,00E+00	1,73E-10	-5,61E-11
EI99, HA, Human health, Radiation [DALY]	2,31E-07	3,50E-08	1,57E-07	3,01E-09	2,94E-08	4,10E-08	1,88E-10	0,00E+00	-3,03E-08	-4,74E-09
EI99, HA, Human health, Respiratory (inorganic) [DALY]	1,64E-05	6,72E-07	8,23E-06	7,70E-07	5,79E-07	1,40E-06	5,01E-06	0,00E+00	-3,13E-07	5,48E-08
EI99, HA, Human health, Respiratory (organic) [DALY]	6,34E-08	2,67E-10	8,62E-09	9,23E-10	2,37E-10	2,72E-08	2,59E-08	0,00E+00	4,88E-10	-1,27E-10

  

Weighted results	TOTAL	Editorial work	Newsprint production	Paper transport	Prepress	Printing	Distribution	Reading	Paper recycling	Incineration
Ecotax 02 min version (SEK)										
Output and <b>Total</b>	2,73E+02	4,73E+00	1,68E+02	3,08E+00	4,45E+00	1,58E+01	5,78E+00	0,00E+00	6,53E+01	6,62E+00
Ecotax 02 max version (SEK)										
Input	1,54E+02	1,05E+01	8,61E+01	2,97E+00	8,76E+00	2,83E+01	2,33E+01	0,00E+00	-3,85E+00	-2,12E+00
Output	4,48E+03	3,42E+02	3,01E+03	5,04E+01	3,08E+02	6,16E+02	3,95E+01	0,00E+00	9,88E+01	1,09E+01
<b>Total</b>	4,63E+03	3,52E+02	3,10E+03	5,34E+01	3,16E+02	6,44E+02	6,28E+01	0,00E+00	9,50E+01	8,75E+00
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)										
Input	9,72E-01	2,23E-02	4,67E-01	2,30E-02	2,09E-02	2,03E-01	2,07E-01	0,00E+00	3,70E-02	-9,16E-03
Output	7,69E-01	3,08E-02	3,99E-01	3,55E-02	2,72E-02	6,73E-02	1,83E-01	0,00E+00	4,83E-03	2,16E-02
<b>Total</b>	1,74E+00	5,31E-02	8,66E-01	5,85E-02	4,80E-02	2,71E-01	3,91E-01	0,00E+00	4,18E-02	1,24E-02

## Appendix 4.3

Characterised and weighted results – Web based newspaper, European scenario

### Appendix 4.3 Characterised and weighted results – Web based newspaper, European scenario

In the table below the characterised and weighted results for the studied system “Web based Newspaper”, European scenario are presented.

Input	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	9,18E-02	2,33E-02	8,85E-05	7,74E-03	8,05E-03	2,33E-04	8,61E-04	5,18E-02	-2,95E-04
EI99, HA, Ecosystem quality, Land conversion [PDF*m2]	1,37E-03	4,14E-04	1,58E-06			1,91E-05	1,54E-05	9,24E-04	-2,98E-06
EI99, HA, Ecosystem quality, Land-use [PDF*m2*a]	4,68E-03	1,43E-03	5,41E-06			1,63E-05	5,26E-05	3,18E-03	-7,06E-06
EI99, HA, Human health, Climate Change [DALY]	1,04E-07	3,16E-08	1,20E-10		3,59E-10	1,84E-11	1,17E-09	7,05E-08	-1,94E-10
EI99, HA, Resources, Fossil fuels [MJ surplus energy]	1,16E+01	2,88E+00	1,10E-02	1,30E+00	8,97E-01	5,12E-02	1,07E-01	6,43E+00	-4,50E-02
EI99, HA, Resources, Minerals [MJ surplus energy]	4,71E-01	2,71E-02	9,54E-05	3,06E-01	7,58E-02	6,74E-04	9,28E-04	6,04E-02	-1,15E-04
Abiotic resources exergy energy [MJ]	3,19E+02	8,26E+01	3,15E-01	2,68E+01	2,29E+01	5,36E-01	3,06E+00	1,84E+02	-8,62E-01
Abiotic resources exergy gravel [MJ]	3,19E+02	8,26E+01	3,15E-01	2,68E+01	2,29E+01	5,36E-01	3,06E+00	1,84E+02	-8,62E-01
Biotic exergy resource [MJ]	3,28E+01	9,35E+00	3,57E-02	1,31E+00	9,48E-01	9,87E-03	3,47E-01	2,09E+01	-1,06E-01
Non-renewable energy resources [MJ]	3,17E+02	8,24E+01	3,14E-01	2,54E+01	2,26E+01	5,32E-01	3,05E+00	1,84E+02	-8,61E-01
Renewable energy resources [MJ]	3,28E+01	9,35E+00	3,57E-02	1,31E+00	9,48E-01	9,87E-03	3,47E-01	2,09E+01	-1,06E-01
Total energy resources, SUM [MJ]	3,50E+02	9,17E+01	3,50E-01	2,67E+01	2,35E+01	5,42E-01	3,40E+00	2,04E+02	-9,68E-01

### Appendix 4.3

#### Characterised and weighted results – Web based newspaper, European scenario

Output	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
CML2001, Acidification Potential (AP) [kg SO <sub>2</sub> -Equiv.]	8,25E-02	1,66E-02	6,34E-05	1,18E-02	1,58E-02	5,89E-04	6,17E-04	3,71E-02	-1,18E-04
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	5,07E-03	1,09E-03	4,15E-06	4,57E-04	9,80E-04	6,80E-05	4,03E-05	2,43E-03	-6,30E-08
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	8,23E-01	1,78E-01	6,77E-04	5,33E-03	4,10E-03	1,31E-03	6,58E-03	3,97E-01	2,30E-01
CML2001, GWP 100 years, no biotic CO <sub>2</sub> [kg CO <sub>2</sub> -Equiv.]	1,41E+01	3,49E+00	1,33E-02	1,33E+00	1,38E+00	3,40E-02	1,29E-01	7,78E+00	-4,76E-02
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	3,65E+00	5,73E-01	2,16E-03	2,60E-01	4,52E-01	8,75E-03	2,10E-02	1,28E+00	1,06E+00
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	1,03E+04	2,20E+03	8,40E+00	8,69E+02	2,10E+03	6,05E+00	8,16E+01	4,92E+03	1,01E+02
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	7,75E-07	1,36E-07	5,18E-10	2,34E-07	9,54E-08	4,18E-09	5,04E-09	3,03E-07	-2,60E-09
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	5,50E-03	1,08E-03	4,10E-06	8,70E-04	1,08E-03	4,51E-05	3,99E-05	2,40E-03	-1,27E-05
CML2001, Radioactive Radiation (RAD) [DALY]	2,34E-07	6,83E-08	2,61E-10	8,31E-09	2,08E-09	1,37E-10	2,53E-09	1,52E-07	-4,16E-10
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	6,54E-02	1,78E-02	6,39E-05	3,66E-03	3,39E-03	1,07E-04	6,22E-04	3,98E-02	-1,02E-04
EI99, HA, Ecosystem quality, Acidification/nitrification [PDF*m <sup>2</sup> *a]	2,28E-01	4,76E-02	1,81E-04	2,53E-02	4,43E-02	2,62E-03	1,76E-03	1,06E-01	-2,93E-04
EI99, HA, Ecosystem quality, Ecotoxicity [PDF*m <sup>2</sup> *a]	1,91E-01	3,41E-02	1,25E-04	3,39E-02	2,43E-02	1,53E-03	1,22E-03	7,61E-02	2,02E-02
EI99, HA, Human health, Carcinogenic effects [DALY]	7,69E-07	2,10E-07	7,85E-10	1,92E-08	2,58E-08	7,39E-09	7,63E-09	4,67E-07	3,11E-08
EI99, HA, Human health, Climate Change [DALY]	3,05E-06	7,62E-07	2,90E-09	2,77E-07	2,87E-07	7,15E-09	2,82E-08	1,70E-06	-1,02E-08



### Appendix 4.3

#### Characterised and weighted results – Web based newspaper, European scenario

Output	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
EI99, HA, Human health, Ozone layer depletion [DALY]	8,17E-10	1,43E-10	5,47E-13	2,46E-10	1,00E-10	4,39E-12	5,31E-12	3,20E-10	-2,73E-12
EI99, HA, Human health, Radiation [DALY]	2,34E-07	6,83E-08	2,61E-10	8,31E-09	2,08E-09	1,37E-10	2,53E-09	1,52E-07	-4,16E-10
EI99, HA, Human health, Respiratory (inorganic) [DALY]	8,21E-06	1,84E-06	6,99E-09	8,39E-07	1,31E-06	6,75E-08	6,80E-08	4,09E-06	-1,25E-08
EI99, HA, Human health, Respiratory (organic) [DALY]	3,84E-09	7,02E-10	2,67E-12	7,24E-10	7,92E-10	4,13E-11	2,60E-11	1,57E-09	-1,56E-11

  

Weighted results	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
Ecotax 02 min version (SEK)									
Output and <b>Total</b>	7,80E+01	1,75E+01	6,57E-02	2,47E+00	2,78E+00	1,48E-01	6,39E-01	3,89E+01	1,56E+01
Ecotax 02 max version (SEK)									
Input	9,81E+01	2,54E+01	9,68E-02	8,14E+00	6,94E+00	1,61E-01	9,41E-01	5,67E+01	-2,66E-01
Output	6,36E+03	1,37E+03	5,20E+00	5,30E+02	1,27E+03	3,92E+00	5,06E+01	3,04E+03	9,15E+01
<b>Total</b>	6,46E+03	1,39E+03	5,30E+00	5,38E+02	1,28E+03	4,08E+00	5,15E+01	3,10E+03	9,12E+01
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)									
Input	2,91E-01	7,02E-02	2,67E-04	3,83E-02	2,31E-02	1,24E-03	2,59E-03	1,56E-01	-1,08E-03
Output	3,51E-01	8,11E-02	3,08E-04	3,43E-02	4,75E-02	2,46E-03	2,99E-03	1,81E-01	1,76E-03
<b>Total</b>	6,42E-01	1,51E-01	5,75E-04	7,26E-02	7,07E-02	3,70E-03	5,59E-03	3,37E-01	6,79E-04

## Appendix 4.4

Characterised and weighted results – Web based newspaper, Swedish scenario

### Appendix 4.4 Characterised and weighted results – Web based newspaper, Swedish scenario

In the table below the characterised and weighted results for the studied system “Web based Newspaper”, Swedish scenario are presented.

Input	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	3,89E-02	7,01E-03	2,68E-05	7,74E-03	8,05E-03	2,33E-04	2,61E-04	1,56E-02	-1,06E-04
EI99, HA, Ecosystem quality, Land conversion [PDF*m2]	5,03E-04	1,48E-04	5,67E-07			1,91E-05	5,51E-06	3,31E-04	-1,30E-06
EI99, HA, Ecosystem quality, Land-use [PDF*m2*a]	5,03E-03	1,54E-03	5,87E-06			1,63E-05	5,70E-05	3,42E-03	-7,68E-06
EI99, HA, Human health, Climate Change [DALY]	4,38E-07	1,34E-07	5,13E-10		3,59E-10	1,84E-11	4,99E-09	2,99E-07	-8,22E-10
EI99, HA, Resources, Fossil fuels [MJ surplus energy]	5,19E+00	9,04E-01	3,46E-03	1,30E+00	8,97E-01	5,12E-02	3,36E-02	2,02E+00	-1,82E-02
EI99, HA, Resources, Minerals [MJ surplus energy]	4,67E-01	2,60E-02	9,92E-05	3,06E-01	7,58E-02	6,74E-04	9,65E-04	5,79E-02	-1,19E-04
Abiotic resources exergy energy [MJ]	1,59E+02	3,34E+01	1,27E-01	2,68E+01	2,29E+01	5,36E-01	1,24E+00	7,44E+01	-3,49E-01
Abiotic resources exergy gravel [MJ]	1,59E+02	3,34E+01	1,28E-01	2,68E+01	2,29E+01	5,36E-01	1,24E+00	7,44E+01	-3,49E-01
Biotic exergy resource [MJ]	1,00E+02	3,01E+01	1,15E-01	1,31E+00	9,48E-01	9,87E-03	1,12E+00	6,72E+01	-3,90E-01
Non-renewable energy resources [MJ]	1,57E+02	3,32E+01	1,27E-01	2,54E+01	2,26E+01	5,32E-01	1,23E+00	7,40E+01	-3,48E-01
Renewable energy resources [MJ]	1,00E+02	3,01E+01	1,15E-01	1,31E+00	9,48E-01	9,87E-03	1,12E+00	6,72E+01	-3,90E-01
Total energy resources, SUM [MJ]	2,57E+02	6,33E+01	2,42E-01	2,67E+01	2,35E+01	5,42E-01	2,35E+00	1,41E+02	-7,38E-01

## Appendix 4.4

### Characterised and weighted results – Web based newspaper, Swedish scenario

Output	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
CML2001, Acidification Potential (AP) [kg SO <sub>2</sub> -Equiv.]	3,94E-02	3,46E-03	1,32E-05	1,18E-02	1,58E-02	5,89E-04	1,29E-04	7,72E-03	-3,96E-05
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	2,83E-03	4,06E-04	1,55E-06	4,57E-04	9,80E-04	6,80E-05	1,51E-05	9,04E-04	2,93E-06
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	3,51E-01	3,46E-02	1,32E-04	5,33E-03	4,10E-03	1,31E-03	1,29E-03	7,71E-02	2,28E-01
CML2001, GWP 100 years, no biotic CO <sub>2</sub> [kg CO <sub>2</sub> -Equiv.]	6,07E+00	1,03E+00	3,92E-03	1,33E+00	1,38E+00	3,40E-02	3,81E-02	2,29E+00	-1,79E-02
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	2,44E+00	2,07E-01	7,90E-04	2,60E-01	4,52E-01	8,75E-03	7,68E-03	4,61E-01	1,05E+00
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	5,16E+03	6,37E+02	2,44E+00	8,69E+02	2,10E+03	6,05E+00	2,37E+01	1,42E+03	1,10E+02
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	5,30E-07	6,07E-08	2,32E-10	2,34E-07	9,54E-08	4,18E-09	2,26E-09	1,35E-07	-2,51E-09
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	2,96E-03	2,96E-04	1,13E-06	8,70E-04	1,08E-03	4,51E-05	1,10E-05	6,61E-04	-1,07E-05
CML2001, Radioactive Radiation (RAD) [DALY]	1,42E-07	4,03E-08	1,54E-10	8,31E-09	2,08E-09	1,37E-10	1,50E-09	8,98E-08	-2,37E-10
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	4,97E-02	1,30E-02	4,98E-05	3,66E-03	3,39E-03	1,07E-04	4,84E-04	2,90E-02	-6,74E-05
EI99, HA, Ecosystem quality, Acidification/nitrification [PDF*m <sup>2</sup> *a]	1,16E-01	1,34E-02	5,11E-05	2,53E-02	4,43E-02	2,62E-03	4,97E-04	2,98E-02	-1,31E-04
EI99, HA, Ecosystem quality, Ecotoxicity [PDF*m <sup>2</sup> *a]	1,56E-01	2,33E-02	8,92E-05	3,39E-02	2,43E-02	1,53E-03	8,67E-04	5,20E-02	1,98E-02
EI99, HA, Human health, Carcinogenic effects [DALY]	3,82E-07	9,11E-08	3,48E-10	1,92E-08	2,58E-08	7,39E-09	3,39E-09	2,03E-07	3,13E-08
EI99, HA, Human health, Climate Change [DALY]	1,71E-06	3,50E-07	1,34E-09	2,77E-07	2,87E-07	7,15E-09	1,30E-08	7,81E-07	-4,57E-09

## Appendix 4.4

### Characterised and weighted results – Web based newspaper, Swedish scenario

Output	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
EI99, HA, Human health, Ozone layer depletion [DALY]	5,58E-10	6,41E-11	2,45E-13	2,46E-10	1,00E-10	4,39E-12	2,38E-12	1,43E-10	-2,64E-12
EI99, HA, Human health, Radiation [DALY]	1,42E-07	4,03E-08	1,54E-10	8,31E-09	2,08E-09	1,37E-10	1,50E-09	8,98E-08	-2,37E-10
EI99, HA, Human health, Respiratory (inorganic) [DALY]	4,74E-06	7,75E-07	2,96E-09	8,39E-07	1,31E-06	6,75E-08	2,88E-08	1,73E-06	-8,55E-09
EI99, HA, Human health, Respiratory (organic) [DALY]	2,55E-09	3,08E-10	1,18E-12	7,24E-10	7,92E-10	4,13E-11	1,15E-11	6,87E-10	-1,33E-11

  

Weighted results	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
Ecotax 02 min version (SEK)									
Output and <b>Total</b>	3,86E+01	5,46E+00	2,09E-02	2,47E+00	2,78E+00	1,48E-01	2,03E-01	1,22E+01	1,54E+01
Ecotax 02 max version (SEK)									
Input	5,46E+01	1,21E+01	4,62E-02	8,14E+00	6,94E+00	1,61E-01	4,49E-01	2,69E+01	-1,32E-01
Output	3,19E+03	3,94E+02	1,51E+00	5,30E+02	1,27E+03	3,92E+00	1,46E+01	8,78E+02	9,64E+01
<b>Total</b>	3,25E+03	4,06E+02	1,55E+00	5,38E+02	1,28E+03	4,08E+00	1,51E+01	9,05E+02	9,63E+01
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)									
Input	1,46E-01	2,57E-02	9,84E-05	3,83E-02	2,31E-02	1,24E-03	9,56E-04	5,74E-02	-4,57E-04
Output	2,02E-01	3,55E-02	1,36E-04	3,43E-02	4,75E-02	2,46E-03	1,32E-03	7,91E-02	2,00E-03
<b>Total</b>	3,49E-01	6,12E-02	2,34E-04	7,26E-02	7,07E-02	3,70E-03	2,28E-03	1,37E-01	1,54E-03

## Appendix 4.5

### Characterised and weighted results – Web based newspaper with printout

## Appendix 4.5 Characterised and weighted results – Web based newspaper with printout

In the table below the characterised and weighted results for the studied system “Web based Newspaper with printout” are presented.

Input	TOTAL	Editorial work	Formatt- ing	PC production	Screen production	PC and screen transporta tion	Paper production	Paper transporta tion	Down- loading	Reading and printing	Paper recycling	Incin- eration paper	Landfill paper	Incin- eration electr- onics
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	1,29E-01	2,35E-02	8,96E-05	7,84E-03	8,15E-03	2,33E-04	1,86E-02	3,16E-03	8,72E-04	6,17E-02	5,79E-03	-8,64E-04	1,77E-04	-2,98E-04
EI99, HA, Ecosystem quality, Land conversion [PDF*m2]	7,10E-03	4,20E-04	1,60E-06			1,91E-05	4,17E-03	1,38E-04	1,56E-05	1,02E-03	1,49E-03	-1,29E-05	-1,61E-04	-3,01E-06
EI99, HA, Ecosystem quality, Land-use [PDF*m2*a]	1,63E-01	1,45E-03	5,48E-06			1,63E-05	1,99E-01	6,84E-04	5,33E-05	3,39E-03	-4,25E-02	-1,17E-05	3,20E-04	-7,15E-06
EI99, HA, Human health, Climate Change [DALY]	2,12E-06	3,20E-08	1,22E-10		3,63E-10	1,84E-11	2,98E-06	7,19E-10	1,19E-09	7,49E-08	-9,65E-07	-5,67E-10	2,62E-11	-1,96E-10
EI99, HA, Resources, Fossil fuels [MJ surplus energy]	2,06E+01	2,92E+00	1,11E-02	1,32E+00	9,08E-01	5,12E-02	3,73E+00	6,20E-01	1,08E-01	8,50E+00	2,53E+00	-1,31E-01	3,93E-02	-4,55E-02
EI99, HA, Resources, Minerals [MJ surplus energy]	5,94E-01	2,74E-02	9,66E-05	3,10E-01	7,67E-02	6,74E-04	8,11E-02	2,54E-02	9,39E-04	6,18E-02	8,84E-03	-2,01E-04	9,39E-04	-1,17E-04
Abiotic resources exergy energy [MJ]	4,10E+02	8,36E+01	3,18E-01	2,72E+01	2,32E+01	5,36E-01	5,28E+01	8,38E+00	3,10E+00	2,11E+02	2,59E+00	-2,53E+00	5,04E-01	-8,73E-01
Abiotic resources exergy gravel [MJ]	4,10E+02	8,36E+01	3,18E-01	2,72E+01	2,32E+01	5,36E-01	5,28E+01	8,38E+00	3,10E+00	2,11E+02	2,59E+00	-2,52E+00	5,04E-01	-8,73E-01
Biotic exergy resource [MJ]	1,34E+02	9,47E+00	3,62E-02	1,32E+00	9,60E-01	9,87E-03	1,59E+02	3,66E-01	3,52E-01	2,22E+01	-5,98E+01	-3,17E-01	4,34E-02	-1,08E-01
Non-renewable energy resources [MJ]	4,06E+02	8,34E+01	3,18E-01	2,58E+01	2,28E+01	5,32E-01	5,19E+01	8,18E+00	3,09E+00	2,10E+02	2,46E+00	-2,53E+00	4,96E-01	-8,72E-01
Renewable energy resources [MJ]	1,34E+02	9,47E+00	3,62E-02	1,32E+00	9,60E-01	9,87E-03	1,59E+02	3,66E-01	3,52E-01	2,22E+01	-5,98E+01	-3,17E-01	4,34E-02	-1,08E-01
Total energy resources, SUM [MJ]	5,39E+02	9,29E+01	3,54E-01	2,71E+01	2,38E+01	5,42E-01	2,11E+02	8,55E+00	3,44E+00	2,32E+02	-5,74E+01	-2,84E+00	5,40E-01	-9,80E-01

## Appendix 4.5

### Characterised and weighted results – Web based newspaper with printout

Outputs	TOTAL	Editorial work	Formatt- ing	PC production	Screen production	PC and screen transporta tion	Paper production	Paper transporta tion	Down- loading	Reading and printing	Paper recycling	Incin- eration paper	Landfill paper	Incin- eration electr- onics
CML2001, Acidification Potential (AP) [kg SO2-Equiv.]	1,07E-01	1,69E-02	6,42E-05	1,19E-02	1,60E-02	5,89E-04	1,88E-02	3,15E-03	6,24E-04	4,06E-02	-1,50E-03	-2,84E-04	4,17E-04	-1,20E-04
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	1,66E-02	1,10E-03	4,20E-06	4,63E-04	9,93E-04	6,80E-05	6,72E-03	5,92E-04	4,09E-05	2,75E-03	2,13E-03	7,40E-06	1,76E-03	-6,38E-08
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	2,84E+00	1,80E-01	6,86E-04	5,40E-03	4,15E-03	1,31E-03	6,91E-01	4,08E-02	6,67E-03	4,25E-01	8,87E-01	7,53E-02	2,86E-01	2,33E-01
CML2001, GWP 100 years, no biotic CO2 [kg CO2-Equiv.]	1,91E+01	3,53E+00	1,34E-02	1,34E+00	1,39E+00	3,40E-02	1,91E+00	4,59E-01	1,31E-01	8,31E+00	1,05E+00	-1,43E-01	1,13E+00	-4,82E-02
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	6,16E+00	5,80E-01	2,19E-03	2,63E-01	4,57E-01	8,75E-03	1,26E+00	9,09E-02	2,13E-02	1,39E+00	2,24E-01	1,77E-01	6,20E-01	1,07E+00
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	1,31E+04	2,23E+03	8,50E+00	8,80E+02	2,12E+03	6,05E+00	1,23E+03	1,37E+02	8,27E+01	5,24E+03	-4,49E+01	2,05E+02	9,36E+02	1,02E+02
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	1,23E-06	1,38E-07	5,24E-10	2,37E-07	9,66E-08	4,18E-09	2,24E-07	4,90E-08	5,10E-09	3,40E-07	1,43E-07	-7,83E-09	3,86E-09	-2,63E-09
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	1,01E-02	1,09E-03	4,15E-06	8,81E-04	1,10E-03	4,51E-05	3,04E-03	3,97E-04	4,04E-05	3,21E-03	6,03E-05	-2,69E-05	3,11E-04	-1,28E-05
CML2001, Radioactive Radiation (RAD) [DALY]	2,48E-07	6,92E-08	2,64E-10	8,42E-09	2,10E-09	1,37E-10	2,60E-08	4,75E-09	2,57E-09	1,62E-07	-2,63E-08	-1,20E-09	3,06E-10	-4,21E-10
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	1,24E-01	1,81E-02	6,47E-05	3,71E-03	3,43E-03	1,07E-04	4,53E-02	2,52E-03	6,29E-04	4,02E-02	9,58E-03	-2,78E-04	4,39E-04	-1,04E-04
EI99, HA, Ecosystem quality, Acidification/nitrification [PDF*m2*a]	3,50E-01	4,82E-02	1,84E-04	2,56E-02	4,49E-02	2,62E-03	8,96E-02	1,85E-02	1,78E-03	1,18E-01	3,77E-04	-3,68E-04	1,01E-03	-2,97E-04

## Appendix 4.5

### Characterised and weighted results – Web based newspaper with printout

Output	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transportati on	Paper production	Paper transportati on	Down-loading	Reading and printing	Paper recycling	Incineration paper	Landfill paper	Incineration electronics
EI99, HA, Ecosystem quality, Ecotoxicity [PDF*m2*a]	4,35E-01	3,46E-02	1,27E-04	3,43E-02	2,46E-02	1,53E-03	1,53E-01	1,69E-02	1,23E-03	7,89E-02	5,01E-02	2,77E-03	1,60E-02	2,04E-02
EI99, HA, Human health, Carcinogenic effects [DALY]	2,19E-06	2,12E-07	7,95E-10	1,94E-08	2,61E-08	7,39E-09	5,69E-07	1,64E-07	7,73E-09	4,94E-07	3,19E-07	5,11E-08	2,92E-07	3,15E-08
EI99, HA, Human health, Climate Change [DALY]	5,33E-06	7,72E-07	2,94E-09	2,80E-07	2,91E-07	7,15E-09	1,69E-06	9,68E-08	2,85E-08	1,81E-06	-1,11E-08	8,69E-08	2,84E-07	-1,03E-08
EI99, HA, Human health, Ozone layer depletion [DALY]	1,30E-09	1,45E-10	5,53E-13	2,49E-10	1,01E-10	4,39E-12	2,36E-10	5,15E-11	5,38E-12	3,59E-10	1,51E-10	-8,23E-12	4,05E-12	-2,76E-12
EI99, HA, Human health, Radiation [DALY]	2,48E-07	6,92E-08	2,64E-10	8,42E-09	2,10E-09	1,37E-10	2,60E-08	4,75E-09	2,57E-09	1,62E-07	-2,63E-08	-1,20E-09	3,06E-10	-4,21E-10
EI99, HA, Human health, Respiratory (inorganic) [DALY]	1,32E-05	1,86E-06	7,08E-09	8,49E-07	1,32E-06	6,75E-08	4,21E-06	5,96E-07	6,89E-08	4,53E-06	-2,72E-07	-2,71E-08	3,10E-08	-1,26E-08
EI99, HA, Human health, Respiratory (organic) [DALY]	1,04E-08	7,11E-10	2,71E-12	7,33E-10	8,02E-10	4,13E-11	3,33E-09	5,42E-10	2,63E-11	3,19E-09	4,24E-10	-3,03E-11	6,47E-10	-1,58E-11

## Appendix 4.5

### Characterised and weighted results – Web based newspaper with printout

Weighted results	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transportation	Paper production	Paper transportation	Downloading	Reading and printing	Paper recycling	Incineration paper	Landfill paper	Incineration electronics
Ecotax 02 min version (SEK)														
Output and <b>Total</b>	2,19E+02	1,77E+01	6,65E-02	2,51E+00	2,82E+00	1,48E-01	5,38E+01	3,45E+00	6,47E-01	4,13E+01	5,67E+01	4,71E+00	1,92E+01	1,58E+01
Ecotax 02 max version (SEK)														
Input	1,32E+02	2,57E+01	9,80E-02	8,24E+00	7,03E+00	1,61E-01	2,68E+01	2,54E+00	9,53E-01	6,48E+01	-3,35E+00	-7,79E-01	1,54E-01	-2,69E-01
Output	8,36E+03	1,38E+03	5,26E+00	5,36E+02	1,29E+03	3,92E+00	8,43E+02	8,90E+01	5,12E+01	3,25E+03	8,59E+01	1,33E+02	6,04E+02	9,26E+01
<b>Total</b>	8,50E+03	1,41E+03	5,36E+00	5,45E+02	1,30E+03	4,08E+00	8,70E+02	9,16E+01	5,21E+01	3,31E+03	8,26E+01	1,33E+02	6,05E+02	9,24E+01
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)														
Input	5,72E-01	7,11E-02	2,70E-04	3,88E-02	2,34E-02	1,24E-03	1,84E-01	1,54E-02	2,63E-03	2,06E-01	3,22E-02	-3,13E-03	9,69E-04	-1,09E-03
Output	6,07E-01	8,21E-02	3,12E-04	3,48E-02	4,81E-02	2,46E-03	1,88E-01	2,52E-02	3,03E-03	1,97E-01	4,20E-03	3,03E-03	1,71E-02	1,78E-03
<b>Total</b>	1,18E+00	1,53E-01	5,82E-04	7,35E-02	7,15E-02	3,70E-03	3,71E-01	4,06E-02	5,66E-03	4,03E-01	3,64E-02	-9,69E-05	1,81E-02	6,88E-04



## Appendix 4.6

Characterised and weighted results – web based newspaper 30 minutes reading

### Appendix 4.6 Characterised and weighted results – Web based newspaper 30 minutes reading, European scenario

In the table below the processes and data sources used for the studied system “Web based newspaper 30 minutes reading, European scenario” are presented.

Input	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	2,28E-01	2,33E-02	8,85E-05	2,31E-02	2,40E-02	6,99E-04	1,89E-03	1,56E-01	-8,80E-04
EI99, HA, Ecosystem quality, Land conversion [PDF*m2]	3,27E-03	4,14E-04	1,58E-06			5,74E-05	3,38E-05	2,77E-03	-8,89E-06
EI99, HA, Ecosystem quality, Land-use [PDF*m2*a]	1,11E-02	1,43E-03	5,41E-06			4,89E-05	1,16E-04	9,55E-03	-2,11E-05
EI99, HA, Human health, Climate Change [DALY]	2,46E-07	3,16E-08	1,20E-10		1,07E-09	5,51E-11	2,57E-09	2,12E-07	-5,79E-10
EI99, HA, Resources, Fossil fuels [MJ surplus energy]	2,90E+01	2,88E+00	1,10E-02	3,89E+00	2,68E+00	1,54E-01	2,35E-01	1,93E+01	-1,34E-01
EI99, HA, Resources, Minerals [MJ surplus energy]	1,35E+00	2,71E-02	9,54E-05	9,15E-01	2,26E-01	2,02E-03	2,04E-03	1,81E-01	-3,45E-04
Abiotic resources exergy energy [MJ]	7,89E+02	8,26E+01	3,15E-01	8,01E+01	6,85E+01	1,61E+00	6,73E+00	5,52E+02	-2,57E+00
Abiotic resources exergy gravel [MJ]	7,89E+02	8,26E+01	3,15E-01	8,01E+01	6,85E+01	1,61E+00	6,73E+00	5,52E+02	-2,57E+00
Biotic exergy resource [MJ]	7,92E+01	9,35E+00	3,57E-02	3,90E+00	2,83E+00	2,96E-02	7,64E-01	6,26E+01	-3,18E-01
Non-renewable energy resources [MJ]	7,83E+02	8,24E+01	3,14E-01	7,60E+01	6,74E+01	1,60E+00	6,71E+00	5,51E+02	-2,57E+00
Renewable energy resources [MJ]	7,92E+01	9,35E+00	3,57E-02	3,90E+00	2,83E+00	2,96E-02	7,64E-01	6,26E+01	-3,18E-01
Total energy resources, SUM [MJ]	8,62E+02	9,17E+01	3,50E-01	7,99E+01	7,02E+01	1,63E+00	7,48E+00	6,13E+02	-2,89E+00

## Appendix 4.6

### Characterised and weighted results – web based newspaper 30 minutes reading

Output	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
CML2001, Acidification Potential (AP) [kg SO <sub>2</sub> -Equiv.]	2,13E-01	1,66E-02	6,34E-05	3,52E-02	4,71E-02	1,77E-03	1,36E-03	1,11E-01	-3,54E-04
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	1,30E-02	1,09E-03	4,15E-06	1,37E-03	2,93E-03	2,04E-04	8,88E-05	7,29E-03	-1,88E-07
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	2,10E+00	1,78E-01	6,77E-04	1,59E-02	1,22E-02	3,94E-03	1,45E-02	1,19E+00	6,88E-01
CML2001, GWP 100 years, no biotic CO <sub>2</sub> [kg CO <sub>2</sub> -Equiv.]	3,52E+01	3,49E+00	1,33E-02	3,96E+00	4,11E+00	1,02E-01	2,84E-01	2,33E+01	-1,42E-01
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	9,77E+00	5,73E-01	2,16E-03	7,75E-01	1,35E+00	2,63E-02	4,62E-02	3,83E+00	3,17E+00
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	2,63E+04	2,20E+03	8,40E+00	2,60E+03	6,26E+03	1,82E+01	1,80E+02	1,47E+04	3,02E+02
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	2,05E-06	1,36E-07	5,18E-10	7,00E-07	2,85E-07	1,25E-08	1,11E-08	9,08E-07	-7,75E-09
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	1,43E-02	1,08E-03	4,10E-06	2,60E-03	3,23E-03	1,35E-04	8,77E-05	7,20E-03	-3,79E-05
CML2001, Radioactive Radiation (RAD) [DALY]	5,61E-07	6,83E-08	2,61E-10	2,48E-08	6,20E-09	4,12E-10	5,58E-09	4,57E-07	-1,24E-09
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	1,60E-01	1,78E-02	6,39E-05	1,09E-02	1,01E-02	3,21E-04	1,37E-03	1,19E-01	-3,06E-04
EI99, HA, Ecosystem quality, Acidification/nitrification [PDF*m <sup>2</sup> *a]	5,85E-01	4,76E-02	1,81E-04	7,57E-02	1,32E-01	7,87E-03	3,88E-03	3,18E-01	-8,75E-04
EI99, HA, Ecosystem quality, Ecotoxicity [PDF*m <sup>2</sup> *a]	5,04E-01	3,41E-02	1,25E-04	1,01E-01	7,26E-02	4,58E-03	2,68E-03	2,28E-01	6,03E-02
EI99, HA, Human health, Carcinogenic effects [DALY]	1,88E-06	2,10E-07	7,85E-10	5,72E-08	7,70E-08	2,22E-08	1,68E-08	1,40E-06	9,28E-08
EI99, HA, Human health, Climate Change [DALY]	7,60E-06	7,62E-07	2,90E-09	8,27E-07	8,58E-07	2,15E-08	6,20E-08	5,10E-06	-3,03E-08

## Appendix 4.6

### Characterised and weighted results – web based newspaper 30 minutes reading

Output	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
EI99, HA, Human health, Ozone layer depletion [DALY]	2,15E-09	1,43E-10	5,47E-13	7,36E-10	2,99E-10	1,32E-11	1,17E-11	9,59E-10	-8,15E-12
EI99, HA, Human health, Radiation [DALY]	5,61E-07	6,83E-08	2,61E-10	2,48E-08	6,20E-09	4,12E-10	5,58E-09	4,57E-07	-1,24E-09
EI99, HA, Human health, Respiratory (inorganic) [DALY]	2,09E-05	1,84E-06	6,99E-09	2,51E-06	3,91E-06	2,03E-07	1,50E-07	1,23E-05	-3,72E-08
EI99, HA, Human health, Respiratory (organic) [DALY]	1,01E-08	7,02E-10	2,67E-12	2,16E-09	2,37E-09	1,24E-10	5,72E-11	4,70E-09	-4,67E-11

  

Weighted results	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
Ecotax 02 min version (SEK)									
Output and <b>Total</b>	1,98E+02	1,75E+01	6,57E-02	7,39E+00	8,31E+00	4,45E-01	1,40E+00	1,17E+02	4,65E+01
Ecotax 02 max version (SEK)									
Input	2,42E+02	2,54E+01	9,68E-02	2,43E+01	2,07E+01	4,84E-01	2,07E+00	1,70E+02	-7,94E-01
Output	1,63E+04	1,37E+03	5,20E+00	1,58E+03	3,80E+03	1,18E+01	1,11E+02	9,13E+03	2,73E+02
<b>Total</b>	1,65E+04	1,39E+03	5,30E+00	1,61E+03	3,82E+03	1,22E+01	1,13E+02	9,30E+03	2,72E+02
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)									
Input	7,30E-01	7,02E-02	2,67E-04	1,14E-01	6,91E-02	3,71E-03	5,71E-03	4,69E-01	-3,22E-03
Output	8,87E-01	8,11E-02	3,08E-04	1,03E-01	1,42E-01	7,38E-03	6,59E-03	5,42E-01	5,25E-03
<b>Total</b>	1,62E+00	1,51E-01	5,75E-04	2,17E-01	2,11E-01	1,11E-02	1,23E-02	1,01E+00	2,03E-03

## Appendix 4.7

Characterised and weighted results – web based newspaper 30 minutes reading

### Appendix 4.7 Characterised and weighted results – Web based newspaper 30 minutes reading, Swedish scenario

In the table below the processes and data sources used for the studied system “Web based newspaper 30 minutes reading, Swedish scenario” are presented.

Input	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	1,02E-01	7,01E-03	2,68E-05	2,31E-02	2,40E-02	6,99E-04	5,73E-04	4,69E-02	-3,19E-04
EI99, HA, Ecosystem quality, Land conversion [PDF*m2]	1,21E-03	1,48E-04	5,67E-07			5,74E-05	1,21E-05	9,92E-04	-3,89E-06
EI99, HA, Ecosystem quality, Land-use [PDF*m2*a]	1,20E-02	1,54E-03	5,87E-06			4,89E-05	1,25E-04	1,03E-02	-2,30E-05
EI99, HA, Human health, Climate Change [DALY]	1,04E-06	1,34E-07	5,13E-10		1,07E-09	5,51E-11	1,10E-08	8,98E-07	-2,47E-09
EI99, HA, Resources, Fossil fuels [MJ surplus energy]	1,37E+01	9,04E-01	3,46E-03	3,89E+00	2,68E+00	1,54E-01	7,39E-02	6,05E+00	-5,45E-02
EI99, HA, Resources, Minerals [MJ surplus energy]	1,34E+00	2,60E-02	9,92E-05	9,15E-01	2,26E-01	2,02E-03	2,12E-03	1,74E-01	-3,58E-04
Abiotic resources exergy energy [MJ]	4,09E+02	3,34E+01	1,27E-01	8,01E+01	6,85E+01	1,61E+00	2,73E+00	2,23E+02	-1,05E+00
Abiotic resources exergy gravel [MJ]	4,09E+02	3,34E+01	1,28E-01	8,01E+01	6,85E+01	1,61E+00	2,73E+00	2,23E+02	-1,05E+00
Biotic exergy resource [MJ]	2,40E+02	3,01E+01	1,15E-01	3,90E+00	2,83E+00	2,96E-02	2,46E+00	2,02E+02	-1,17E+00
Non-renewable energy resources [MJ]	4,02E+02	3,32E+01	1,27E-01	7,60E+01	6,74E+01	1,60E+00	2,71E+00	2,22E+02	-1,04E+00
Renewable energy resources [MJ]	2,40E+02	3,01E+01	1,15E-01	3,90E+00	2,83E+00	2,96E-02	2,46E+00	2,02E+02	-1,17E+00
Total energy resources, SUM [MJ]	6,42E+02	6,33E+01	2,42E-01	7,99E+01	7,02E+01	1,63E+00	5,17E+00	4,23E+02	-2,21E+00

## Appendix 4.7

### Characterised and weighted results – web based newspaper 30 minutes reading

Output	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
CML2001, Acidification Potential (AP) [kg SO <sub>2</sub> -Equiv.]	1,11E-01	3,46E-03	1,32E-05	3,52E-02	4,71E-02	1,77E-03	2,83E-04	2,32E-02	-1,19E-04
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	7,66E-03	4,06E-04	1,55E-06	1,37E-03	2,93E-03	2,04E-04	3,32E-05	2,71E-03	8,78E-06
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	9,84E-01	3,46E-02	1,32E-04	1,59E-02	1,22E-02	3,94E-03	2,83E-03	2,31E-01	6,83E-01
CML2001, GWP 100 years, no biotic CO <sub>2</sub> [kg CO <sub>2</sub> -Equiv.]	1,61E+01	1,03E+00	3,92E-03	3,96E+00	4,11E+00	1,02E-01	8,38E-02	6,86E+00	-5,36E-02
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	6,90E+00	2,07E-01	7,90E-04	7,75E-01	1,35E+00	2,63E-02	1,69E-02	1,38E+00	3,14E+00
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	1,42E+04	6,37E+02	2,44E+00	2,60E+03	6,26E+03	1,82E+01	5,21E+01	4,26E+03	3,29E+02
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	1,46E-06	6,07E-08	2,32E-10	7,00E-07	2,85E-07	1,25E-08	4,97E-09	4,06E-07	-7,52E-09
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	8,24E-03	2,96E-04	1,13E-06	2,60E-03	3,23E-03	1,35E-04	2,42E-05	1,98E-03	-3,20E-05
CML2001, Radioactive Radiation (RAD) [DALY]	3,44E-07	4,03E-08	1,54E-10	2,48E-08	6,20E-09	4,12E-10	3,29E-09	2,69E-07	-7,11E-10
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	1,22E-01	1,30E-02	4,98E-05	1,09E-02	1,01E-02	3,21E-04	1,06E-03	8,71E-02	-2,02E-04
EI99, HA, Ecosystem quality, Acidification/nutrication [PDF*m <sup>2</sup> *a]	3,20E-01	1,34E-02	5,11E-05	7,57E-02	1,32E-01	7,87E-03	1,09E-03	8,95E-02	-3,94E-04
EI99, HA, Ecosystem quality, Ecotoxicity [PDF*m <sup>2</sup> *a]	4,19E-01	2,33E-02	8,92E-05	1,01E-01	7,26E-02	4,58E-03	1,91E-03	1,56E-01	5,95E-02
EI99, HA, Human health, Carcinogenic effects [DALY]	9,58E-07	9,11E-08	3,48E-10	5,72E-08	7,70E-08	2,22E-08	7,45E-09	6,09E-07	9,39E-08
EI99, HA, Human health, Climate Change [DALY]	4,42E-06	3,50E-07	1,34E-09	8,27E-07	8,58E-07	2,15E-08	2,86E-08	2,34E-06	-1,37E-08

## Appendix 4.7

### Characterised and weighted results – web based newspaper 30 minutes reading

Output	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
EI99, HA, Human health, Ozone layer depletion [DALY]	1,54E-09	6,41E-11	2,45E-13	7,36E-10	2,99E-10	1,32E-11	5,24E-12	4,29E-10	-7,91E-12
EI99, HA, Human health, Radiation [DALY]	3,44E-07	4,03E-08	1,54E-10	2,48E-08	6,20E-09	4,12E-10	3,29E-09	2,69E-07	-7,11E-10
EI99, HA, Human health, Respiratory (inorganic) [DALY]	1,26E-05	7,75E-07	2,96E-09	2,51E-06	3,91E-06	2,03E-07	6,34E-08	5,18E-06	-2,56E-08
EI99, HA, Human health, Respiratory (organic) [DALY]	7,01E-09	3,08E-10	1,18E-12	2,16E-09	2,37E-09	1,24E-10	2,52E-11	2,06E-09	-3,98E-11

  

Weighted results	TOTAL	Editorial work	Formatting	PC production	Screen production	PC and screen transport	Down-loading	Energy for reading	Incineration
Ecotax 02 min version (SEK)									
Output and <b>Total</b>	1,05E+02	5,46E+00	2,09E-02	7,39E+00	8,31E+00	4,45E-01	4,46E-01	3,65E+01	4,62E+01
Ecotax 02 max version (SEK)									
Input	1,39E+02	1,21E+01	4,62E-02	2,43E+01	2,07E+01	4,84E-01	9,88E-01	8,08E+01	-3,95E-01
Output	8,75E+03	3,94E+02	1,51E+00	1,58E+03	3,80E+03	1,18E+01	3,22E+01	2,64E+03	2,89E+02
<b>Total</b>	8,89E+03	4,06E+02	1,55E+00	1,61E+03	3,82E+03	1,22E+01	3,32E+01	2,72E+03	2,89E+02
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)									
Input	3,86E-01	2,57E-02	9,84E-05	1,14E-01	6,91E-02	3,71E-03	2,10E-03	1,72E-01	-1,37E-03
Output	5,34E-01	3,55E-02	1,36E-04	1,03E-01	1,42E-01	7,38E-03	2,90E-03	2,37E-01	6,00E-03
<b>Total</b>	9,20E-01	6,12E-02	2,34E-04	2,17E-01	2,11E-01	1,11E-02	5,01E-03	4,10E-01	4,62E-03

## Appendix 4.8

Characterised and weighted results – Tablet e-paper newspaper, European scenario

### Appendix 4.8 Characterised and weighted results – Tablet e-paper newspaper, European scenario

In the table below the characterised and weighted results for the studied system “Tablet e-paper newspaper, European scenario” are presented.

Input	TOTAL	Editorial work	Formatting	Uploading	E-paper production	E-paper transport	Down-loading	Energy for reading	Incineration
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	7,82E-02	2,33E-02	1,77E-04	2,77E-06	5,47E-02	3,22E-04	4,61E-06	5,56E-07	-3,38E-04
EI99, HA, Ecosystem quality, Land conversion [PDF*m2]	4,41E-04	4,14E-04	3,16E-06	4,94E-08		2,64E-05	8,23E-08	9,90E-09	-3,41E-06
EI99, HA, Ecosystem quality, Land-use [PDF*m2*a]	1,45E-03	1,43E-03	1,08E-05	1,69E-07		2,25E-05	2,82E-07	3,41E-08	-8,10E-06
EI99, HA, Resources, Fossil fuels [MJ surplus energy]	1,25E+01	2,88E+00	2,19E-02	3,43E-04	9,62E+00	7,07E-02	5,71E-04	6,89E-05	-5,16E-02
EI99, HA, Resources, Minerals [MJ surplus energy]	9,69E-01	2,71E-02	1,91E-04	2,98E-06	9,41E-01	9,31E-04	4,97E-06	6,47E-07	-1,32E-04
Abiotic resources exergy energy [MJ]	2,71E+02	8,26E+01	6,29E-01	9,83E-03	1,88E+02	7,39E-01	1,64E-02	1,97E-03	-9,88E-01
Abiotic resources exergy gravel [MJ]	2,71E+02	8,26E+01	6,29E-01	9,83E-03	1,88E+02	7,39E-01	1,64E-02	1,97E-03	-9,88E-01
Biotic exergy resource [MJ]	1,77E+01	9,35E+00	7,14E-02	1,12E-03	8,36E+00	1,36E-02	1,86E-03	2,23E-04	-1,22E-01
Non-renewable energy resources [MJ]	2,66E+02	8,24E+01	6,28E-01	9,81E-03	1,83E+02	7,34E-01	1,63E-02	1,97E-03	-9,87E-01
Renewable energy resources [MJ]	1,77E+01	9,35E+00	7,14E-02	1,12E-03	8,36E+00	1,36E-02	1,86E-03	2,23E-04	-1,22E-01
Total energy resources, SUM [MJ]	2,83E+02	9,17E+01	6,99E-01	1,09E-02	1,91E+02	7,48E-01	1,82E-02	2,19E-03	-1,11E+00

Appendix 4.8

Characterised and weighted results – Tablet e-paper newspaper, European scenario

Output	TOTAL	Editorial work	Formatting	Uploading	E-paper production	E-paper transport	Down-loading	Energy for reading	Incineration
CML2001, Acidification Potential (AP) [kg SO2-Equiv.]	8,99E-02	1,66E-02	1,27E-04	1,98E-06	7,24E-02	8,13E-04	3,30E-06	3,98E-07	-1,36E-04
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	4,37E-03	1,09E-03	8,30E-06	1,30E-07	3,18E-03	9,38E-05	2,16E-07	2,61E-08	-7,23E-08
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	4,77E-01	1,78E-01	1,35E-03	2,12E-05	3,20E-02	1,81E-03	3,53E-05	4,25E-06	2,64E-01
CML2001, GWP 100 years, no biotic CO2 [kg CO2-Equiv.]	1,27E+01	3,49E+00	2,66E-02	4,15E-04	9,17E+00	4,69E-02	6,92E-04	8,34E-05	-5,46E-02
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	3,53E+00	5,73E-01	4,32E-03	6,76E-05	1,72E+00	1,21E-02	1,13E-04	1,37E-05	1,22E+00
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	9,48E+03	2,20E+03	1,68E+01	2,62E-01	7,13E+03	8,35E+00	4,37E-01	5,27E-02	1,16E+02
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	2,11E-06	1,36E-07	1,04E-09	1,62E-11	1,97E-06	5,77E-09	2,70E-11	3,24E-12	-2,97E-09
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	6,83E-03	1,08E-03	8,20E-06	1,28E-07	5,70E-03	6,23E-05	2,14E-07	2,57E-08	-1,45E-05
CML2001, Radioactive Radiation (RAD) [DALY]	1,08E-07	6,83E-08	5,21E-10	8,15E-12	3,97E-08	1,90E-10	1,36E-11	1,63E-12	-4,77E-10
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	4,51E-02	1,78E-02	1,28E-04	2,00E-06	2,70E-02	1,48E-04	3,33E-06	4,26E-07	-1,17E-04
EI99, HA, Ecosystem quality, Acidification/nutrification [PDF*m2*a]	2,16E-01	4,76E-02	3,62E-04	5,66E-06	1,64E-01	3,62E-03	9,44E-06	1,14E-06	-3,36E-04
EI99, HA, Ecosystem quality, Ecotoxicity [PDF*m2*a]	2,18E-01	3,41E-02	2,50E-04	3,91E-06	1,58E-01	2,11E-03	6,52E-06	8,15E-07	2,31E-02
EI99, HA, Human health, Carcinogenic effects [DALY]	3,82E-07	2,10E-07	1,57E-09	2,45E-11	1,25E-07	1,02E-08	4,09E-11	5,01E-12	3,56E-08
EI99, HA, Human health, Climate Change [DALY]	2,68E-06	7,62E-07	5,80E-09	9,06E-11	1,92E-06	9,87E-09	1,51E-10	1,82E-11	-1,16E-08



Appendix 4.8

Characterised and weighted results – Tablet e-paper newspaper, European scenario

Output	TOTAL	Editorial work	Formatting	Uploading	E-paper production	E-paper transport	Down-loading	Energy for reading	Incineration
EI99, HA, Human health, Ozone layer depletion [DALY]	2,24E-09	1,43E-10	1,09E-12	1,71E-14	2,09E-09	6,06E-12	2,85E-14	3,42E-15	-3,13E-12
EI99, HA, Human health, Radiation [DALY]	1,08E-07	6,83E-08	5,21E-10	8,15E-12	3,97E-08	1,90E-10	1,36E-11	1,63E-12	-4,77E-10
EI99, HA, Human health, Respiratory (inorganic) [DALY]	7,20E-06	1,84E-06	1,40E-08	2,19E-10	5,27E-06	9,32E-08	3,64E-10	4,39E-11	-1,43E-08
EI99, HA, Human health, Respiratory (organic) [DALY]	6,48E-09	7,02E-10	5,35E-12	8,36E-14	5,73E-09	5,71E-11	1,39E-13	1,68E-14	-1,79E-11

  

Weighted results	TOTAL	Editorial work	Formatting	Uploading	E-paper production	E-paper transport	Down-loading	Energy for reading	Incineration
Ecotax 02 min version (SEK)									
Output and <b>Total</b>	5,25E+01	1,75E+01	1,31E-01	2,05E-03	1,68E+01	2,05E-01	3,42E-03	4,17E-04	1,78E+01
Ecotax 02 max version (SEK)									
Input	8,25E+01	2,54E+01	1,94E-01	3,03E-03	5,70E+01	2,23E-01	5,04E-03	6,07E-04	-3,05E-01
Output	5,83E+03	1,37E+03	1,04E+01	1,62E-01	4,34E+03	5,41E+00	2,71E-01	3,26E-02	1,05E+02
<b>Total</b>	5,91E+03	1,39E+03	1,06E+01	1,66E-01	4,40E+03	5,63E+00	2,76E-01	3,32E-02	1,05E+02
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)									
Input	3,22E-01	7,02E-02	5,34E-04	8,34E-06	2,51E-01	1,71E-03	1,39E-05	1,68E-06	-1,24E-03
Output	3,03E-01	8,11E-02	6,16E-04	9,63E-06	2,16E-01	3,39E-03	1,60E-05	1,94E-06	2,02E-03
<b>Total</b>	6,26E-01	1,51E-01	1,15E-03	1,80E-05	4,67E-01	5,10E-03	2,99E-05	3,61E-06	7,79E-04

## Appendix 4.9

Characterised and weighted results – Tablet e-paper newspaper, Swedish scenario

### Appendix 4.9 Characterised and weighted results – Tablet e-paper newspaper, Swedish scenario

In the table below the characterised and weighted results for the studied system “Tablet e-paper newspaper, Swedish scenario” are presented.

Input	TOTAL	Editorial work	Formatting	Uploading	E-paper production	E-paper transport	Down-loading	Energy for reading	Incineration
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	6,20E-02	7,01E-03	5,36E-05	8,38E-07	5,47E-02	3,22E-04	1,40E-06	1,68E-07	-1,71E-04
EI99, HA, Ecosystem quality, Land conversion [PDF*m2]	1,74E-04	1,48E-04	1,13E-06	1,77E-08		2,64E-05	2,95E-08	3,54E-09	-2,09E-06
EI99, HA, Ecosystem quality, Land-use [PDF*m2*a]	1,56E-03	1,54E-03	1,17E-05	1,83E-07		2,25E-05	3,06E-07	3,67E-08	-1,24E-05
EI99, HA, Resources, Fossil fuels [MJ surplus energy]	1,06E+01	9,04E-01	6,91E-03	1,08E-04	9,62E+00	7,07E-02	1,80E-04	2,16E-05	-2,93E-02
EI99, HA, Resources, Minerals [MJ surplus energy]	9,68E-01	2,60E-02	1,98E-04	3,10E-06	9,41E-01	9,31E-04	5,17E-06	6,20E-07	-1,92E-04
Abiotic resources exergy energy [MJ]	2,22E+02	3,34E+01	2,55E-01	3,98E-03	1,88E+02	7,39E-01	6,64E-03	7,97E-04	-5,62E-01
Abiotic resources exergy gravel [MJ]	2,22E+02	3,34E+01	2,55E-01	3,98E-03	1,88E+02	7,39E-01	6,64E-03	7,97E-04	-5,62E-01
Biotic exergy resource [MJ]	3,81E+01	3,01E+01	2,30E-01	3,60E-03	8,36E+00	1,36E-02	6,00E-03	7,20E-04	-6,28E-01
Non-renewable energy resources [MJ]	2,17E+02	3,32E+01	2,54E-01	3,96E-03	1,83E+02	7,34E-01	6,60E-03	7,92E-04	-5,61E-01
Renewable energy resources [MJ]	3,81E+01	3,01E+01	2,30E-01	3,60E-03	8,36E+00	1,36E-02	6,00E-03	7,20E-04	-6,28E-01
Total energy resources, SUM [MJ]	2,55E+02	6,33E+01	4,84E-01	7,56E-03	1,91E+02	7,48E-01	1,26E-02	1,51E-03	-1,19E+00

## Appendix 4.9

### Characterised and weighted results – Tablet e-paper newspaper, Swedish scenario

Output	TOTAL	Editorial work	Formatting	Uploading	E-paper production	E-paper transport	Down-loading	Energy for reading	Incineration
CML2001, Acidification Potential (AP) [kg SO <sub>2</sub> -Equiv.]	7,66E-02	3,46E-03	2,65E-05	4,14E-07	7,24E-02	8,13E-04	6,90E-07	8,28E-08	-6,38E-05
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	3,69E-03	4,06E-04	3,10E-06	4,84E-08	3,18E-03	9,38E-05	8,07E-08	9,69E-09	4,72E-06
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	4,35E-01	3,46E-02	2,64E-04	4,13E-06	3,20E-02	1,81E-03	6,89E-06	8,26E-07	3,67E-01
CML2001, GWP 100 years, no biotic CO <sub>2</sub> [kg CO <sub>2</sub> -Equiv.]	1,02E+01	1,03E+00	7,84E-03	1,22E-04	9,17E+00	4,69E-02	2,04E-04	2,45E-05	-2,88E-02
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	3,63E+00	2,07E-01	1,58E-03	2,47E-05	1,72E+00	1,21E-02	4,12E-05	4,94E-06	1,69E+00
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	7,96E+03	6,37E+02	4,87E+00	7,61E-02	7,13E+03	8,35E+00	1,27E-01	1,52E-02	1,77E+02
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	2,03E-06	6,07E-08	4,64E-10	7,26E-12	1,97E-06	5,77E-09	1,21E-11	1,45E-12	-4,04E-09
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	6,04E-03	2,96E-04	2,26E-06	3,54E-08	5,70E-03	6,23E-05	5,90E-08	7,08E-09	-1,72E-05
CML2001, Radioactive Radiation (RAD) [DALY]	8,01E-08	4,03E-08	3,08E-10	4,81E-12	3,97E-08	1,90E-10	8,02E-12	9,62E-13	-3,82E-10
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	4,02E-02	1,30E-02	9,96E-05	1,56E-06	2,70E-02	1,48E-04	2,59E-06	3,11E-07	-1,09E-04
EI99, HA, Ecosystem quality, Acidification/nutrification [PDF*m <sup>2</sup> *a]	1,81E-01	1,34E-02	1,02E-04	1,60E-06	1,64E-01	3,62E-03	2,66E-06	3,20E-07	-2,11E-04
EI99, HA, Ecosystem quality, Ecotoxicity [PDF*m <sup>2</sup> *a]	2,16E-01	2,33E-02	1,78E-04	2,79E-06	1,58E-01	2,11E-03	4,64E-06	5,57E-07	3,19E-02
EI99, HA, Human health, Carcinogenic effects [DALY]	2,77E-07	9,11E-08	6,96E-10	1,09E-11	1,25E-07	1,02E-08	1,81E-11	2,18E-12	5,04E-08
EI99, HA, Human health, Climate Change [DALY]	2,27E-06	3,50E-07	2,68E-09	4,18E-11	1,92E-06	9,87E-09	6,97E-11	8,37E-12	-7,37E-09

## Appendix 4.9

### Characterised and weighted results – Tablet e-paper newspaper, Swedish scenario

Output	TOTAL	Editorial work	Formatting	Uploading	E-paper production	E-paper transport	Down-loading	Energy for reading	Incineration
EI99, HA, Human health, Ozone layer depletion [DALY]	2,16E-09	6,41E-11	4,90E-13	7,65E-15	2,09E-09	6,06E-12	1,28E-14	1,53E-15	-4,25E-12
EI99, HA, Human health, Radiation [DALY]	8,01E-08	4,03E-08	3,08E-10	4,81E-12	3,97E-08	1,90E-10	8,02E-12	9,62E-13	-3,82E-10
EI99, HA, Human health, Respiratory (inorganic) [DALY]	6,13E-06	7,75E-07	5,92E-09	9,26E-11	5,27E-06	9,32E-08	1,54E-10	1,85E-11	-1,38E-08
EI99, HA, Human health, Respiratory (organic) [DALY]	6,08E-09	3,08E-10	2,36E-12	3,68E-14	5,73E-09	5,71E-11	6,14E-14	7,36E-15	-2,14E-11

  

Weighted results	TOTAL	Editorial work	Formatting	Uploading	E-paper production	E-paper transport	Down-loading	Energy for reading	Incineration
Ecotax02 min									
Output and <b>Total</b>	4,74E+01	5,46E+00	4,17E-02	6,52E-04	1,68E+01	2,05E-01	1,09E-03	1,30E-04	2,48E+01
Ecotax02 max									
Input	6,92E+01	1,21E+01	9,24E-02	1,44E-03	5,70E+01	2,23E-01	2,41E-03	2,89E-04	-2,12E-01
Output	4,90E+03	3,94E+02	3,01E+00	4,71E-02	4,34E+03	5,41E+00	7,84E-02	9,41E-03	1,55E+02
<b>Total</b>	4,97E+03	4,06E+02	3,10E+00	4,85E-02	4,40E+03	5,63E+00	8,08E-02	9,70E-03	1,55E+02
EI99, HA (Hierarchist approach)									
Input	2,78E-01	2,57E-02	1,97E-04	3,07E-06	2,51E-01	1,71E-03	5,12E-06	6,15E-07	-7,37E-04
Output	2,58E-01	3,55E-02	2,71E-04	4,24E-06	2,16E-01	3,39E-03	7,07E-06	8,48E-07	3,22E-03
<b>Total</b>	5,37E-01	6,12E-02	4,68E-04	7,31E-06	4,67E-01	5,10E-03	1,22E-05	1,46E-06	2,48E-03

## Appendix 4.10

### Characterised and weighted results – Comparison, European scenario

## Appendix 4.10 Characterised and weighted results – Comparison, European scenario

In the table below the characterised and weighted results for the four systems compared in the European scenario.

	Printed newspaper	Web based 10 min	Web based 30 min	Tablet e-paper
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	2,00E-01	9,18E-02	2,28E-01	7,82E-02
Abiotic resources exergy gravel [MJ]	6,19E+02	3,19E+02	7,89E+02	2,71E+02
Biotic exergy resource [MJ]	2,45E+02	3,28E+01	7,92E+01	1,77E+01
Total energy resources, SUM	8,59E+02	3,50E+02	8,62E+02	2,83E+02
CML2001, Acidification Potential (AP) [kg SO <sub>2</sub> -Equiv.]	1,50E-01	8,25E-02	2,13E-01	8,99E-02
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	2,12E-02	5,07E-03	1,30E-02	4,37E-03
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	3,41E+00	8,23E-01	2,10E+00	4,77E-01
CML2001, GWP 100 years, no biotic CO <sub>2</sub> [kg CO <sub>2</sub> -Equiv.]	2,80E+01	1,41E+01	3,52E+01	1,27E+01
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	6,29E+00	3,65E+00	9,77E+00	3,53E+00
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	1,34E+04	1,03E+04	2,63E+04	9,48E+03
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	2,52E-06	7,75E-07	2,05E-06	2,11E-06
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	2,20E-02	5,50E-03	1,43E-02	6,83E-03
CML2001, Radioactive Radiation (RAD) [DALY]	3,91E-07	2,34E-07	5,61E-07	1,08E-07
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	1,90E-01	6,54E-02	1,60E-01	4,51E-02
Ecotax 02 min version (SEK)	2,72E+02	7,80E+01	1,98E+02	5,25E+01
Ecotax 02 max version (SEK)	8,84E+03	6,46E+03	1,65E+04	5,91E+03
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)	1,89E+00	6,42E-01	1,62E+00	6,26E-01

## Appendix 4.11

### Characterised and weighted results – Comparison, Swedish scenario

## Appendix 4.11 Characterised and weighted results – Comparison, Swedish scenario

In the table below the characterised and weighted results for the four systems compared in the Swedish scenario.

	Printed newspaper	Web based 10 min	Web based 30 min	Tablet e-paper
CML2001, Abiotic Depletion (ADP) [kg Sb-Equiv.]	1,58E-01	3,89E-02	1,02E-01	6,20E-02
Abiotic resources exergy gravel [MJ]	4,54E+02	1,59E+02	4,09E+02	2,22E+02
Biotic exergy resource [MJ]	2,60E+02	1,00E+02	2,40E+02	3,81E+01
Total energy resources, SUM	6,98E+02	2,57E+02	6,42E+02	2,55E+02
CML2001, Acidification Potential (AP) [kg SO <sub>2</sub> -Equiv.]	1,15E-01	3,94E-02	1,11E-01	7,66E-02
CML2001, Eutrophication Potential (EP) [kg Phosphate-Equiv.]	2,27E-02	2,83E-03	7,66E-03	3,69E-03
CML2001, Freshwater Aquatic Ecotoxicity Pot. (FAETP inf.) [kg DCB-Equiv.]	3,59E+00	3,51E-01	9,84E-01	4,35E-01
CML2001, GWP 100 years, no biotic CO <sub>2</sub> [kg CO <sub>2</sub> -Equiv.]	1,91E+01	6,07E+00	1,61E+01	1,02E+01
CML2001, Human Toxicity Potential (HTP inf.) [kg DCB-Equiv.]	4,90E+00	2,44E+00	6,90E+00	3,63E+00
CML2001, Marine Aquatic Ecotoxicity Pot. (MAETP inf.) [kg DCB-Equiv.]	6,54E+03	5,16E+03	1,42E+04	7,96E+03
CML2001, Ozone Layer Depletion Potential (ODP, steady state) [kg R11-Equiv.]	3,67E-06	5,30E-07	1,46E-06	2,03E-06
CML2001, Photochem. Ozone Creation Potential (POCP) [kg Ethene-Equiv.]	2,64E-02	2,96E-03	8,24E-03	6,04E-03
CML2001, Radioactive Radiation (RAD) [DALY]	2,31E-07	1,42E-07	3,44E-07	8,01E-08
CML2001, Terrestrial Ecotoxicity Potential (TETP inf.) [kg DCB-Equiv.]	1,76E-01	4,97E-02	1,22E-01	4,02E-02
Ecotax 02 min version (SEK)	2,70E+02	3,86E+01	1,05E+02	4,74E+01
Ecotax 02 max version (SEK)	4,58E+03	3,25E+03	8,89E+03	4,97E+03
Ecoindicator 99, HA (Hierarchist approach) (Ecopoints)	1,68E+00	3,49E-01	9,20E-01	5,37E-01