

APPENDIX A  
COMPARISON OF EXISTING ENVIRONMENTAL ACCOUNTING SYSTEMS

Table A.1 Comparison of LCC methodologies.

Life Cycle Cost Analysis Methodologies									
No	Features	1	2	3	4	5	6	7	8
1	Objective	LCC of labour	LCC of assets	Cost alternatives	Cost reduction	EIO Analysis	Cost evaluation	LCC estimates	Eco-design
2	Identification of alternatives	A	A	A	A	NA	A	NA	A
3	Cost breakdown structure	E	E	E	E	G	G	G	E
4	Identification of suitable cost model	G	G	E	E	A	A	A	E
5	Generation of cost estimates	E	E	E	E	NA	A	NA	G
6	Availability of cost profiles	A	A	G	A	NA	A	NA	G
7	Break even analysis	A	A	A	A	NA	NA	NA	A
8	Determination of high cost contributors	NA	NA	A	A	A	NA	NA	A
9	Total cost determination	A	A	A	A	A	A	A	A
10	Incorporation of eco-costs	NA	NA	NA	NA	NA	NA	NA	G
11	Correlation with design changes	NA	NA	NA	A	NA	A	A	A
12	Implementation of design solution	NA	NA	NA	A	NA	A	A	A
13	Quality aspects	NA	NA	NA	NA	NA	A	E	NA
14	Inclusion of supplier relationships	NA	NA	NA	NA	E	NA	NA	A
15	Trade-offs	NA	E	NA	A	A	A	A	A
16	Employment cycles	E	NA	NA	NA	A	NA	NA	NA
17	Sensitivity analysis	A	A	A	A	NA	NA	NA	A
18	Risk analysis	A	A	A	A	NA	A	A	A
19	De-manufacture concept	NA	NA	NA	A	NA	A	A	A
20	Any special feature	Human factor	Asset model	Holistic model	Uncertainty	LCA upgrading	Product system design	Redesign	Eco-design

A: Available; NA: Not Available; G: Good; E: Excellent; LCC: Life Cycle Cost; EIO: Economic input-output

Table A.2

Comparison of environmental accounting systems

University of Pretoria etd – De Beer, P J (2005)

Environmental Accounting Systems					
No	Features	EMT	TCA	LCC	FCA
1	Main objective	To analyse material streams and related money flows	To analyse environmental and social impacts and costs	To reduce the total cost of a product, project or asset	To identify costs related to providing goods and public services
2	Costs considered				
2.1	Conventional costs	Y	Y	Y	Y
2.2	Hidden costs	N	Y	N/A	Y
2.3	Contingent costs	N	Y	N/A	Y
2.4	Image and relationship costs	N	Y	N	Y
2.5	Environmental degradation costs	N	Y	N	N
2.6	Human impact costs	N	Y	N	N
3	Cost estimates	Y	Y	Y	Y
4	Probability analysis	N	Y	S	N
5	Risk analysis	Y	Y	S	Y
6	Determination of high cost contributors	Y	Y	S	Y
7	Total cost determination	N	Y	Y	Y
8	Stand-alone decision making tool	N	Y*	N	N
9	Special features	Good for identification and analysis of investment alternatives	Good for identification and analysis of investment alternatives and to determine baseline status	A cradle-to-grave approach considering definite money flows based on the output of life cycle analysis data	All costs are identified regardless of the period in which the expenditures occur
10	Trade-off	Costs and revenues in the end-of-life and user phases are not included	No defined method of valuing intangible and external costs and lack of actual input data	The costs considered are limited for use as a stand-alone environmental accounting system	This system must be implemented as part of a larger environmental management system

Y: Yes; N/A: Not available; N: No; S: Some systems; Y\*: To some degree.