ISO/TR 14047:2012-06 (E)

Environmental management - Life cycle assessment - Illustrative examples on how to apply ISO 14044 to impact assessment situations

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Organization of examples in this Technical Report 1
2.1 Mandatory and optional elements 1
2.2 Scope of examples 1
2.3 Organization of document and route map 3

3 Elements of LCIA as illustrated in the examples 4
3.1 Overview 4
3.2 Mandatory elements 4
3.3 Optional elements (related to ISO 14044:2006, 4.4.3) 13

4 Examples of the mandatory elements of LCIA 15
4.1 General description 15
4.2 Example 1 - Use of two different materials for gas pipelines 15
4.3 Example 2 - Two acidification impact category indicators 22
4.4 Example 3 - Impacts of Greenhouses Gas (GHG) emissions and carbon sinks on forestry activities 28
4.5 Example 4 - Endpoint category indicators assessment 38
4.6 Example 5 - Choice of material for a wind spoiler in car design study 44

5 Examples of the optional elements of LCIA 48
5.1 Overview 48
5.2 Example 1 continued 49
5.3 Example 2 continued 50
5.4 Example 6 - Normalization of LCIA indicator results for the use of different refrigerator gases 52
5.5 Example 7 - Normalization in a waste management study 58
5.6 Example 1 continued 65
5.7 Example 5 continued 66
5.8 Example 8 - A technique for the determination of weighting factors 67
5.9 Example 1 continued 72
5.10 Example 5 continued 74
5.11 Example 1 continued 75

Bibliography 82