

ISO/TR 14073:2017-05 (E)

Environmental management - Water footprint - Illustrative examples on how to apply ISO 14046

Contents		Page
Foreword		vi
Introduction		vii
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols and abbreviated terms	1
4.1	Symbols	1
4.2	Abbreviated terms	2
5	Selection of the type of water footprint assessment	3
5.1	General	3
5.2	Choice of the type of water footprint study	6
6	Presentation of the examples	7
6.1	Example A - Water footprint inventory of two power plants	7
6.1.1	Goal and scope	7
6.1.2	Inventory	8
6.1.3	Interpretation	8
6.2	Example B - Water footprint inventory of rice cultivation	8
6.2.1	Goal and scope	8
6.2.2	Inventory	9
6.3	Example C - Water scarcity footprint of municipal water management	12
6.3.1	Goal and scope	12
6.3.2	Inventory	12
6.3.3	Impact assessment	13
6.3.4	Interpretation	13
6.4	Example D - Water scarcity footprint of rice cultivation (cradle-to-gate)	14
6.4.1	Goal and scope	14
6.4.2	Inventory	14
6.4.3	Impact assessment	14
6.5	Example E - Water scarcity footprint of a textile with life cycle stages in different locations	15
6.5.1	Goal and scope	15
6.5.2	Inventory	15
6.5.3	Impact assessment	16
6.5.4	Interpretation	16
6.6	Example F - Water scarcity footprint of reservoir operation, reflecting seasonality	17
6.6.1	Goal and scope	17
6.6.2	Inventory	17
6.6.3	Impact assessment	17
6.6.4	Interpretation	18
6.7	Example G - Water scarcity footprint and water availability footprint of packaging production	18
6.7.1	Goal and scope	18
6.7.2	Inventory	19
6.7.3	Impact assessment	19

6.8	Example H - Water scarcity footprint differentiated by source of water	21
6.8.1	Goal and scope	21
6.8.2	Inventory	22
6.8.3	Impact assessment	22
6.8.4	Interpretation	22
6.9	Example I - Variation of water scarcity by forest management and land use	23
6.9.1	Goal and scope	23
6.9.2	Inventory	23
6.9.3	Impact assessment	23
6.9.4	Interpretation	24
6.10	Example J - Water eutrophication footprint of maize cultivation, calculated as one or two indicator results	24
6.10.1	Goal and scope	24
6.10.2	Inventory	24
6.10.3	Impact assessment	25
6.11	Example K - Comprehensive water footprint profile of packaging production	27
6.11.1	Goal and scope	27
6.11.2	Inventory	27
6.11.3	Impact assessment	27
6.11.4	Interpretation	30
6.12	Example L - Non-comprehensive weighted water footprint of cereal cultivation	30
6.12.1	Goal and scope	30
6.12.2	Inventory	30
6.12.3	Impact assessment	30
6.13	Example M - Water footprint of packaging production as part of a life cycle assessment. 32	
6.13.1	Goal and scope	32
6.13.2	Inventory	32
6.13.3	Impact assessment	32
6.13.4	Interpretation	33
6.14	Example N - Non-comprehensive water footprint of textile production	33
6.14.1	Goal and Scope	33
6.14.2	Inventory	33
6.14.3	Impact assessment	34
6.14.4	Discussion	36
6.14.5	Limitations	36
6.15	Example O - Non-comprehensive weighted water footprint of municipal water management	37
6.15.1	Goal and scope	37
6.15.2	Inventory	37
6.15.3	Impact assessment	38
6.15.4	Interpretation	40
6.16	Example P - Non-comprehensive water footprint of a company producing chemicals (organization)	41
6.16.1	Goal and scope	41
6.16.2	Inventory	42
6.16.3	Impact assessment	43
6.16.4	Interpretation	45
6.17	Example Q - Water scarcity footprint of an aluminium company (organization)	46
6.17.1	Goal and scope	46
6.17.2	Inventory	47
6.17.3	Impact assessment	47
6.17.4	Interpretation	51
6.18	Example R - Non-comprehensive direct water footprint of a hotel (organization) considering seasonality	51
6.18.1	Goal and scope	51
6.18.2	Inventory	52
6.18.3	Impact assessment	52
6.18.4	Interpretation	53
7	Issues arising in water footprint studies	53
7.1	Seasonality	53

7.2	Use of a baseline	54
7.3	Evaporation, transpiration and evapotranspiration	55
7.4	Water quality	55
7.4.1	General	55
7.4.2	Relevant air and soil (and water) emissions	56
7.5	Choice of indicators along the environmental mechanism	57
7.6	Identification of foreseen consequences of the excluded impacts	58
7.7	Sensitivity analysis	58
Bibliography		60