



Universiteit
Leiden

The Netherlands

Expanding the coverage of ecosystem services in life cycle assessment: an interdisciplinary venture

Migoni Alejandro, E.

Citation

Migoni Alejandro, E. (2023, October 5). *Expanding the coverage of ecosystem services in life cycle assessment: an interdisciplinary venture*. Retrieved from <https://hdl.handle.net/1887/3643103>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/3643103>

Note: To cite this publication please use the final published version (if applicable).



Abbreviations

AoP	Area of Protection
CF	Characterization Factor
CICES	Common International Classification of Ecosystem Services
EEIOA	Environmental Economic Input Output Analysis
EPD	Environmental Product Declaration
ES	Ecosystem Service
FEGS-CS	Final Ecosystem Goods and Services Classification System
GWP	Global Warming Potential
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
LCI	Life Cycle Inventory
LCIA	Life Cycle Impact Assessment
LSA	Land System Archetype
MEA	Millenium Ecosystem Assessment
MFA	Material Flow Analysis
NES-CS	National Ecosystem Services Classification System
PNV	Potential Natural Vegetation
ReCiPe	Acronym for RIVM, Radboud University, CML, and Pré Consultants
SETAC	Society of Environmental Toxicology and Chemistry
SOM	Self-Organized Maps
TEEB	The Economics of Ecosystems and Biodiversity
UNEP	The United Nations Environment Program
USES-LCA	Uniform System for the Evaluation of Substances adapted for LCA
WoS	Web of Science

List of symbols

Ar	Area of each archetype within a country
α	Represents an undetermined value of pollinators per m ² associated with a reference land use type
CF	Characterization factor
K_{use}	Correction factor that reflects the relative degree of soil erosion impact associated with a given land use type
O	Land occupation flows
PA	Pollinator Abundance, expressed in pollinators per m ²
PAO	Pollinator Abundance Occupation, indicator result for land occupation impacts, expressed as relative pollinator abundance decrease.
PO	Probabilities of (land use) Occurrence based on rule of thumb expert estimates expressed in values of 0.1, 0.5, and 1
S_x	Expert estimate of pollinator abundance, expressed on a scale from 0 to 100.
SEO	Soil Erosion Occupation, indicator result for land occupation impacts on soil erosion, expressed in tons of soil eroded.
t_{reg}	Regeneration time