# Impact Assessment Method Log file

# openLCA IA method v.2.0.4 vs v.2.0.3

- openLCA IA-method package v.2.0.4 includes 40 impact assessment methods
- 4 methods have been newly introduced database: Cumulative Energy Demand (LHV), EF Method (adapted), Environmental Prices and AWARE.
- The methods excluded from package v.2.0.4 are obsolete or no more used. If users are interested, they can download and import package v.2.0.3.
- Main updates:
  - AWARE method available in the package includes only the generic factors for unknown water usage and not the factors specific for agricultural and non-agricultural use of water. To download the complete method, check http://www.openlca.org/download/ (Impact method section).
  - CML-IA baseline: added categories “Abiotic depletion” and “Abiotic depletion (fossil fuel)“
  - When using water footprint methods such as AWARE, Berger et al (2014), Boulay et al 2011 and Pfister et al, we recommend to used regionalized databases (e.g., regionalized version of ecoinvent).
  - Non-regionalized water flows have been mapped to all the available water footprint methods and impact categories (include in the multi-category methods)
  - Long-term emissions are included

*Table 1. summary of the methods included in the openLCA pack v.2.0.4 (if the "Last version" field includes an *, it means that the version has not been explicitly found in the method provider website)*

| Method | MIDPOINT or ENDPOINT | normalization | weighting | Last version | release | vs IA pack v.2.0.3 |
|---|---|---|---|---|---|---|
| AWARE | midpoint | NO | NO | 1.2 | 2017 | NEW |
| BEES+ | midpoint | YES | YES | 4.0 | 2007 | UPDATED |
| Berger et al 2014 (Water Scarcity) | midpoint | NO | NO | 1 | 2014 | - |
| Boulay et al 2011 (Human Health) | endpoint | NO | NO | 1 | 2011 | - |
| Boulay et al 2011 (Water Scarcity) | midpoint | NO | NO | 1 | 2011 | - |
| CML - baseline | midpoint | YES | NO | 4.7 | 2016 | - |
| CML - non-baseline | midpoint | YES | NO | 4.7 | 2016 | - |
| Cumulative Energy Demand | midpoint | NO | YES | 1* | 2003 | UPDATED |
| Cumulative Energy Demand (LHV) | midpoint | NO | YES | 1* | 2018 | NEW |
| Cumulative Exergy Demand | midpoint | NO | YES | 1* | 2010 | - |
| Ecological Scarcity 2006 (Water Scarcity) | midpoint | NO | NO | | | - |
| Ecological Scarcity 2013 | midpoint | NO | YES | 1* | 2013 | UPDATED |
| Ecosystem Damage Potential | endpoint | NO | YES | 1 | 2007 | - |
| EDIP 2003 | midpoint | YES | YES | 1* | 2003 | - |
| EF methods (adapted) - v.2 | midpoint | YES | YES | 2.0 | 2019 | NEW |
| Environmental Prices | midpoint | NO | YES | 1 | 2018 | NEW |
| EPD (2018) | midpoint | NO | NO | 1 | 2018 | UPDATED |
| EPS 2015d | endpoint | NO | YES | 1 | 2015 | - |
| EPS 2015dx | endpoint | NO | YES | 1 | 2015 | - |
| Greenhouse Gas Protocol | midpoint | NO | YES | 1* | 2015 | - |
| Hoekstra et al 2012 (Water Scarcity) | midpoint | NO | NO | 1* | 2002 | - |
| ILCD 2011 Midpoint+ | midpoint | YES | YES | 1.0.9 | 2016 | - |
| IMPACT 2002+ | midpoint | YES | YES | Q2.21 | 2012 | UPDATED |
| IPCC 2013 GWP 100a | midpoint | NO | NO | 1* | 2013 | - |
| IPCC 2013 GWP 20a | midpoint | NO | NO | 1* | 2013 | - |
| Motoshita et al 2010 | endpoint | NO | NO | 1* | 2010 | - |
| Pfister et al 2009 (Eco-indicator 99) | endpoint | NO | NO | 1* | 2009 | - |
| Pfister et al 2009 (Water Scarcity) | midpoint | NO | NO | 1* | 2009 | - |
| Pfister et al 2010 (ReCiPe) | endpoint | NO | NO | 1* | 2010 | - |
| ReCiPe 2016 - Endpoint (E) | endpoint | YES | YES | 1.1 | 2016 | UPDATED |
| ReCiPe 2016 - Endpoint (H) | endpoint | YES | YES | 1.1 | 2016 | UPDATED |
| ReCiPe 2016 - Endpoint (I) | endpoint | YES | YES | 1.1 | 2016 | UPDATED |
| ReCiPe 2016 - Midpoint (E) | midpoint | YES | NO | 1.1 | 2016 | UPDATED |
| ReCiPe 2016 - Midpoint (H) | midpoint | YES | NO | 1.1 | 2016 | UPDATED |
| ReCiPe 2016 - Midpoint (I) | midpoint | YES | NO | 1.1 | 2016 | UPDATED |
| Selected LCI results | midpoint | NO | NO | 1* | 2007 | - |
| Selected LCI results, additional | midpoint | NO | NO | 1* | 2007 | - |
| TRACI 2.1 | midpoint | YES | NO | 2.1 | 2013 | UPDATED |
| USEtox 2 (recommended + interim) | midpoint | NO | NO | 2.02 | 2016 | - |
| USEtox 2 (recommended only) | midpoint | NO | NO | 2.03 | 2016 | - |