

What is new in software and database update 7.1.8

PRé Consultants bv, May 2008.

The SimaPro 7.1.8 software update contains a number of bug fixes. More details are given in the readme.txt file in the SimaPro program directory.

Database update 7.1.8 contains the combined database update 7.1.7 plus the patch for Ecological Scarcity 2006. If you have already installed and imported these there is no need to update the database again; you only need to update the software. Below you find information on the changes to the original impact assessment methods.

Note that only the original methods will be updated. Any changes you made to these methods will be overwritten. Methods that were copied or created by yourself will not be updated.

General changes in all methods

The following changes were applied to all impact assessment methods:

1. A new substance flow introduced in ecoinvent 2.0 called 'carbon dioxide, land transformation' is now included in all the methods available in SimaPro 7.1. This substance flow represents the CO₂ emissions from clear cutting and land transformation.
2. CO₂ uptake and emissions of CO₂ from biogenic sources were added to every method with effects on climate change except for Impact 2002+ (which does not consider CO₂ uptake). Note that we deviate here from the viewpoint of the ecoinvent centre, which does not include biogenic CO₂ uptake and emissions.

Ecological Scarcity 2006, v1.01

The latest method available from method developers ESU Services (www.esu-services.ch) was included with the following adaptations:

- Substances emitted to subcompartment unspecified, with characterization factor zero are excluded from the method.
- Substances emitted to a specific subcompartment with characterization factor zero while a non zero factor is provided for the subcompartment unspecified remain in the list.
- Substances emitted to the subcompartment agricultural are 1) replaced by the subcompartment unspecified with the same characterization factor of subcompartment agricultural and 2) a subcompartment industrial with characterization factor zero is added.
- Impact category "natural resources" was extended with the following substances:
 - Water, barrage*
 - Water, cooling drinking
 - Water, cooling, surface
 - Water, cooling, unspecified natural origin/kg
 - Water, cooling, well, in ground
 - Water, fresh
 - Water, process and cooling, unspecified natural origin
 - Water, process, drinking
 - Water, process, surface
 - Water, process, unspecified natural origin/kg
 - Water, process, unspecified natural origin/m3
 - Water, process, well, in ground
 - Water, turbine use, unspecified natural origin*
 - Water, unspecified natural origin/kg

Ecological Scarcity 2006, v1.02

The following water parameters have been deleted from the impact category "Natural resources", as water used for energy production is not considered in this method.

Water, barrage

Water, turbine use, unspecified natural origin.

On the request of the method creators (ESU-services) we have changed the way biotic CO2 is calculated, this is different from the normal procedure in SimaPro.

The following factors have been deleted in the impact category "Emissions to air":

Raw material "Carbon dioxide, biogenic, in air"

Airborne emission Carbon dioxide", biogenic

Airborne emission Carbon monoxide, biogenic

Please note that airborne emission "Methane, biogenic" is not deleted! Airborne emission "Methane" was added with characterisation factor 7,1 E3 UBP/kg.

TRACI 2, v3.01

- Pesticides with subcompartment Agricultural were changed to subcompartment Unspecified to cover for inventories that do not use subcompartments.

- For some impact categories the units were adapted (ex. Carcinogenics: 'benzene eq' is changed to 'kg benzen eq'; for global warming the unit 'CO2 eq' is changed into 'kg CO2 eq').

BEES, v4.01

- One extra substance flow "Water, turbine use, unspecified natural origin" is added to the impact category 'water intake'.

- For some impact categories the units were adapted (ex. HH cancer: 'C7H7 eq' is changed to 'g C6H6 eq'; for global warming the unit 'CO2 eq' is changed into 'g CO2 eq').

Selected LCI results, additional, v1.01

- The following substances are added to the impact category 'water':

Water, barrage

Water, cooling drinking

Water, cooling, salt, ocean

Water, cooling, surface

Water, cooling, unspecified natural origin/kg

Water, cooling, unspecified natural origin/m3

Water, cooling, well, in ground

Water, fresh

Water, process and cooling, unspecified natural origin

Water, process, drinking

Water, process, salt, ocean

Water, process, surface

Water, process, unspecified natural origin/kg

Water, process, unspecified natural origin/m3

Water, process, well, in ground

Water, turbine use, unspecified natural origin

Water, unspecified natural origin/kg

Cumulative Exergy Demand, v1.01

- The following substances are added:

Energy, solar, converted

Energy, from hydrogen

Energy, from hydro power

Energy, from gas, natural

Energy, from oil

Energy, from uranium

Energy, from wood

Energy, from biomass

Energy, from peat

Energy, from brown coal

Energy, from hard coal

Water, barrage

Water, cooling drinking

Water, cooling, surface

Water, cooling, unspecified natural origin/kg
Water, cooling, well, in ground
Water, fresh
Water, process and cooling, unspecified natural origin
Water, process, drinking
Water, process, surface
Water, process, unspecified natural origin/kg
Water, process, unspecified natural origin/m³
Water, process, well, in ground
Water, turbine use, unspecified natural origin
Water, unspecified natural origin/kg

Cumulative Energy Demand, v1.05

- Extra substance flows are added:
 - Energy, gross calorific value, in biomass, primary forest
 - Geothermal converted
 - Energy, solar, converted
 - Energy, from hydrogen
 - Energy, unspecified
- The characterization factor of substance 'Peat, in ground' in compartment raw, biotic used in impact category "non renewable, fossil" has a new characterization factor = 9 MJ-eq/kg.

EDIP/UMIP 2003, v1.01

- The characterization factors for impact category "Resources (all)" were updated according to the update of EDIP 97 issued in 2004. Except for Cerium and Lanthanum.
- Added the substances: Uranium, Chromium, Selenium, Strontium, Tellurium, Thallium, Titanium, Tungsten, Vanadium, Yttrium, Zirconium.
- For PGM (Platinum Group Metals) the average characterization factor of platinum and palladium is used.
- The normalisation (1994) and weighting (2004) factors for all categories were updated according to the update of EDIP 97 issued in 2004.

EDIP/UMIP 97 (resources only), v2.03

- Updated characterization factors according to the updated figures from EDIP 97 (2004).
- Added the impact categories: Uranium, Chromium, Selenium, Strontium, Tellurium, Thallium, Titanium, Tungsten, Vanadium, Yttrium, Zirconium.
- Added materials to the above mentioned impact categories.
- Added normalisation and weighting factors for the above mentioned impact categories.
- For PGM (Platinum Group Metals) the average characterization factor of platinum and palladium is used.
- The normalisation (1994) and weighting (2004) factors for all impact categories were updated according to the update of EDIP 97 (2004), with exception of Cerium and Lanthanum.

EDIP/UMIP 97, v2.04

- The characterization factors for impact category "Resources (all)" were updated according to the update of EDIP 97 issued in 2004. Except for Cerium and Lanthanum.
- Added the substances: Uranium, Chromium, Selenium, Strontium, Tellurium, Thallium, Titanium, Tungsten, Vanadium, Yttrium, Zirconium.
- For PGM (Platinum Group Metals) the average characterization factor of platinum and palladium is used.
- The normalisation (1994) and weighting (2004) factors for all categories were updated according to the update of EDIP 97 issued in 2004.