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SESSION T1-8 Sustainability of Agri-Food Products

4th September 2019, Wednesday 1:30 - 3:00 pm

Improving regional coverage of agricultural data in a background database

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Goal:

The creation of reliable, consistent and transparent regionalized LCIs represents a core purpose of the Sustainable Recycling Industries-Life Cycle Inventories (SRI-LCI) project. SRI-LCI was a program funded by Swiss State Secretariat of Economic Affairs (SECO) and implemented by ecoinvent across Brazil, Colombia, India, Peru and South Africa. One of the key sectors improved in all regions was the agriculture sector. Different strategies were used for different regions and will be detailed in this communication.

Methods:

The project included the development of a simplified tool allowing the creation of crop producing LCIs, compliant with the ecoinvent methodology. The tool can be improved to include different emission models, depending on the region where the crop is produced.

Heavily influencing the agriculture sector, new data and assumptions for water production and supply were collected in the framework of SRI-LCI. This allowed distinguishing between different irrigation technologies, influencing the water footprint of key crops in heavily-irrigating countries.

Results:

This communication covers the results obtained for Brazil and India, picturing two different strategies for the development of a dense core of datasets covering the main crops of economic relevance in each of the countries.

A total of 46 new crop producing datasets in India were developed using the abovementioned tool. This demanded the collection of a limited set of parameters, that allowed the tool the calculation of the different emissions and inputs. The results obtained will be discussed in this presentation.

In the Brazilian case, the country was divided into states, which allowed the consideration of distinct models covering the specificities of the Brazilian states. The development of the circa 120 crop producing LCIs was done independently from the tool.