

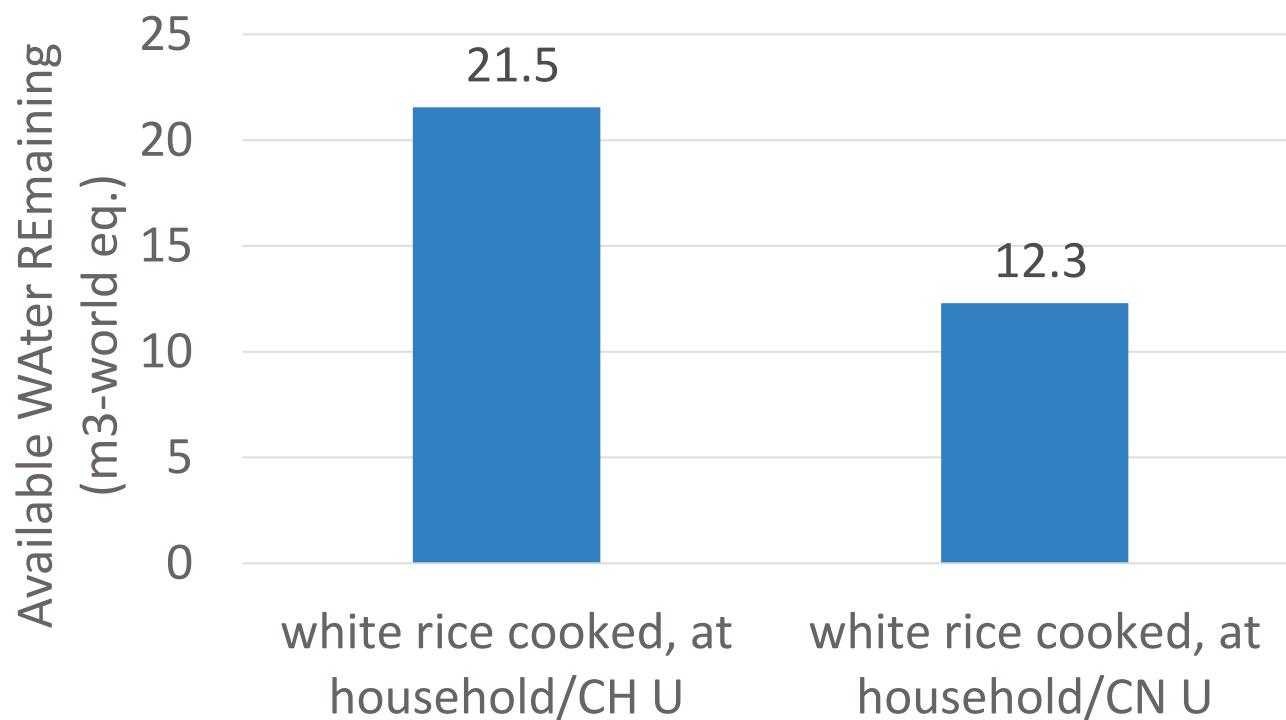


Regionalisation in LCA: the (urgent) need for harmonisation

69 LCA forum, 13.9.2018, ETH Zürich
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Rice case study results in SimaPro



What we have



- Regionalisation is implemented in SimaPro in a basic manner
 - No specific field for geography
 - One substance for each combination of elementary flow plus geography code, e.g. one water flow, once for each 252 geographies plus unspecified geography
 - Limited to water input and output flows and to 5 airborne emissions
 - We adjusted Ecoinvent so that water flows are regionalised; they inherit the geography of the process
 - Impact assessment includes characterisation factors for each
 - Results are displayed as any other LCA results



What we have



- But it works with the LCI data and LCIA methods we implemented, e.g. AWARE.
- If we would implement the complete LANCA or Chaudhary methods for land use, we would add 47,079 and 14,472 new substances, respectively... and they aren't being used in LCI databases

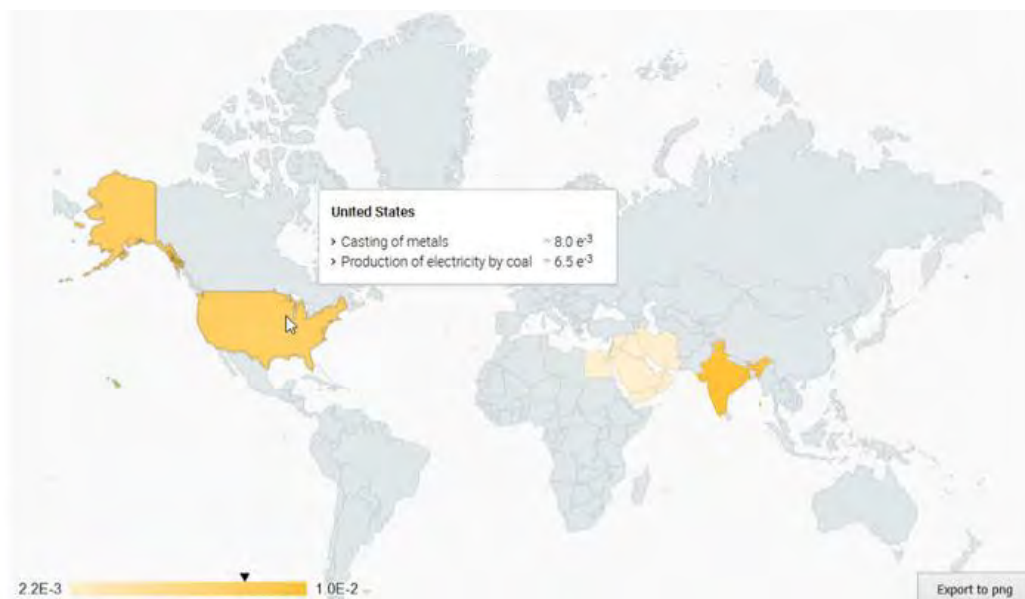


What else we have



- In SimaPro's database platform (beta version), we implemented geographies as separate fields so the number of substances is much lower than in SimaPro desktop
- We have used it to display visually in a world map where impacts take place and how severe they are, e.g.

<https://www.bioscope.info/>



Why we don't implement regionalisation further



Why we don't implement regionalisation further

- No defined nomenclature/hierarchies, geography mixed with watersheds/biomes, archetypes, different for different definitions (2 letter, 3 letter, KML, coordinate systems)
- Additional typologies used (like irrigated/non irrigated)
- Most datasets now contain a region code (but RoW can mean anything)
- As usual no real link between Methods and Inventory
- Normalized references are not regionalised

Big and urgent need for harmonisation

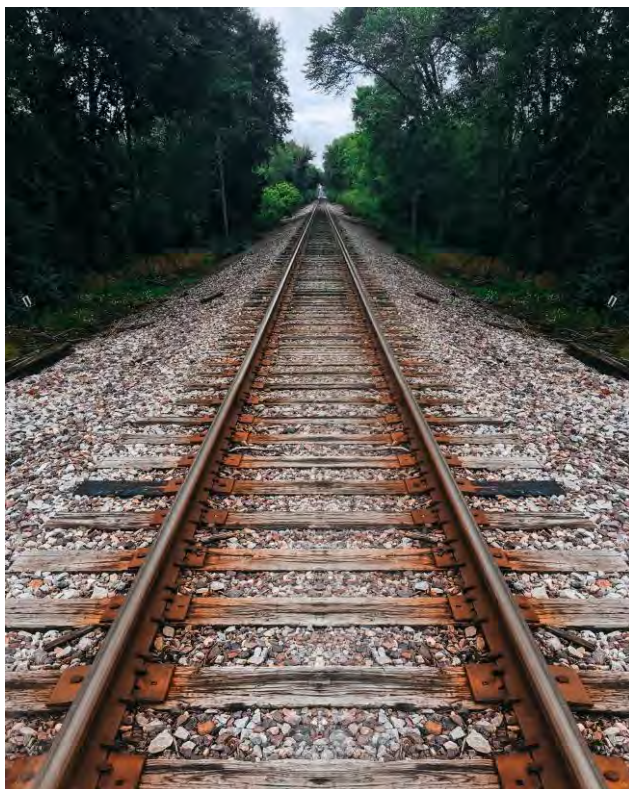


Take away messages

- It's not the method nor the LCI data developers who should set the rules but their final users
 - Sophisticated and with detailed spatial scale to be used in academia
 - Pragmatic and more coarse for business users
- The path to be taken might require conceptual and even fundamental software changes.
- If we don't want this to become another unsolved and eternally debated topic, we need urgent alignment and clear guidance to be provided to the LCA community
 - Did the UNEP Life Cycle Initiative task force on regionalisation do this?



Or shall we do it altogether with this event as the
first step?



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