



Technical Helpdesk for National LCA Databases

Training on Advanced Dataset Development and Global Network Access – Roadmapping for the Peruvian National Database

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Segment Outline

Introduction

Summary of previous activities in the country

National life cycle databases creation and expansion

Mainstreaming

What are the needs (industry, government, NGOs)?

Priority sectors

Who could do what and when?

Roadmap Plan: Infrastructure, format, ownership, governance, activities

Database part

Further detailed planning of next steps:

- What does exist? First datasets to be created? Or adapted? What are the core datasets for the country?
- What kind of database will it be and which database protocol?
- How will the national database be interoperable and able to share datasets outside the country?
- Who manages the database? Who is doing what in the short term?

Roadmap Plan: Decisions on and development of mechanism to generate datasets and set up the database itself

Business plan for initial setup...for long term operations...for updates and upgrades

Foundation

- Dr. Ian Vázquez-Rowe, M.Sc. Isabel Quispe, B.Sc. Alessandro Gilardino
- | Commissioned by UNEP to the PUCP | December 1, 2015

Regional Stakeholder Consultation on LCA Databases in Latin America

Based on Session on ‘Regional Roadmap towards the Development of LCA Databases’. 14 July 2015. In conjunction with the CILCA 2015 Conference.

Pontificia Universidad Católica del Perú. Av. Universitaria 1801, San Miguel. Lima, Perú

CILCA 2015 Take-Aways

- The **stated main aim of the consultation document** was the building of a roadmap towards the development of a regional database structure for the Latin-America – Caribbean (LAC) region, and also integration of these experiences with those occurring in the remaining areas of Ibero-America, i.e., Spain and Portugal.
- Should be **nourished by the construction of quality nationally-based databases** and should aim at harmonizing in the medium term the different velocities that nations have developed when building these databases.
- Partnering -- **internationalization project led and funded by ecoinvent** (www.sustainable-industries.org) and supported by Quantis, which includes a formal review of the data which afterwards will be available in the national databases of the countries' providers as well as ecoinvent.
- **Sharing of experiences**

Plan – Post-CILCA 2015

- For nations in Group II (including Peru) the development of an action plan with stakeholders in each country (i.e., authorities or other actors linked to strategic sectors in the economy) will be necessary.
- Furthermore, the development of at least databases in three countries should be initiated with national datasets for one or more priority sectors.
- The Peruvian LC network (PELCAN) offered to engage PROMPeru and the Ministry of Environment of Peru. Concrete plans of the Peruvian Life Cycle Network were committed to be developed by March 2016.



Timing – Post-CILCA 2015

- For other nations that have developed an LCA network (i.e. *Group II*).
- Results regarding training, engagement of government institutions and research should be presented at CILCA 2017

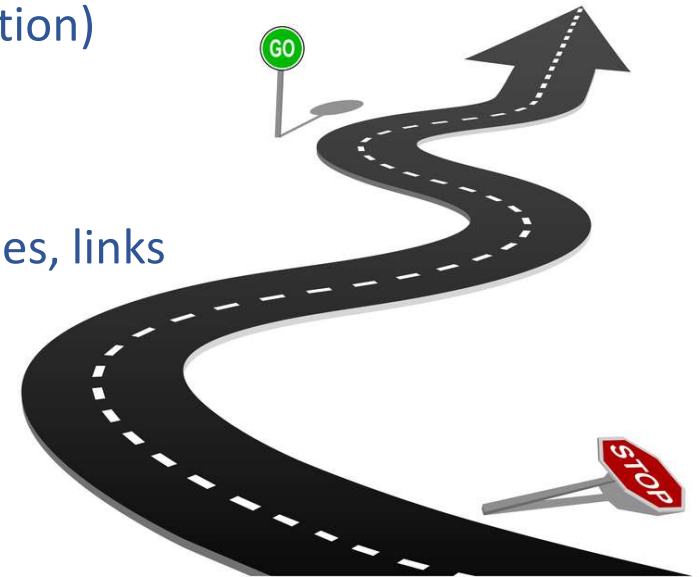
Activity	2016												2017			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
Engage government inst.																
Research in new sectors																
First workshop																
Second workshop																

CILCA 2015 - Results and Recommendations

- **Starting with national databases** was seen as a more realistic option. Furthermore,ecoinvent suggested to start with the priority sectors (for example, based on share of GDP and on most exported products' clusters) and apply a companies' rating system that ranks at the top the ones reporting to the national database.
- Create **synergies among the most active sectors** such as mining, construction, food and energy to have compatible data. Focus the first efforts of data collection in energy, construction and export markets.
- **Data quality** of key products and materials is also key.
- **Dataset creation**: Which LCA data to use, especially LCA data which are not (yet) integrated in LCA databases.
- The **opportunity of exploiting national registries** to generate datasets was also mentioned, following models of extrapolation.
- **Translate national statistics** into LCA datasets by using conversion tools which can be shared in the region.
- Global Network on Interoperable LCA Databases (GLAD) to **organize the entering of raw data and datasets** into national databases.

Elements of a roadmap document

- Infrastructure, format, ownership and governance
- Stakeholders engagement and priority sectors
- List of mainstreaming activities
- Datasets to be covered (including order of priority)
- Proposed strategy for datasets development (adaptation, creation)
- Data intellectual property issues, if any
- Structure and protocol of database
- International dimension: interoperability with existing databases, links to ongoing international efforts, i.e. GLAD
- Business plan
- Roadmap with timelines and milestones

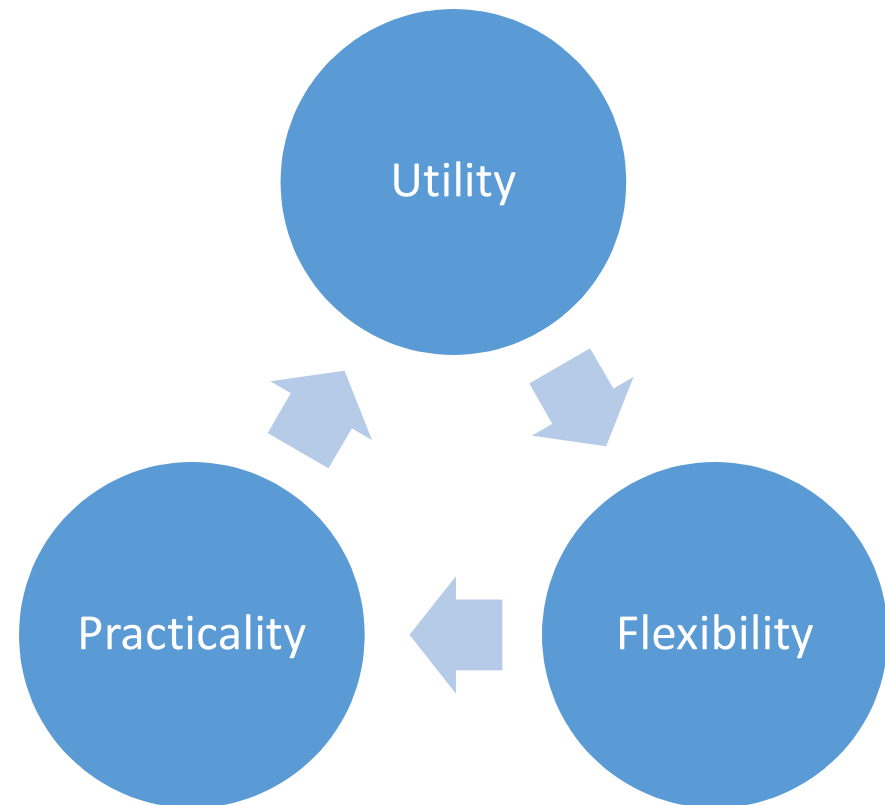


Database Part of Roadmap

- What does exist? Datasets to be created? Or adapted? What are the core datasets for the country?
- What kind of database will it be and which database protocol?
- How will the national database be interoperable and able to share datasets outside the country?
- Who manages the database? Who is doing what in the short term?
- Decisions on and development of mechanism to generate datasets and the database itself (structure as integral to existing system or stand-alone, core datasets, kind of database and protocol, database manager, etc.)
- Initial business plan for initial setup...for long term operations...for updates and upgrades (finances and who does what)

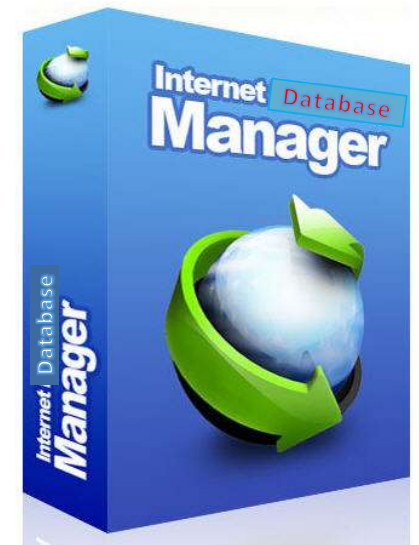
Data Providers

- Who are they?
- Do they submit raw data to be assembled into datasets by the database manager and then validated?
- How are these submittals quality controlled?
- Or, are they expected (or required) to submit datasets (including required meta-data for documentation, which could also be verified?
- How (or if) they work with the developers and managers or just conform to the protocol



Database Developers & Managers

- Decide all or only some (in consultation with stakeholders) elements of the protocol
- How to best work with data providers – including developing data collection templates
- How to best support users, both nationally and internationally
- Developing a budget and securing funding (could be in concert with an LCA Network)



Specify Actions and Milestones

Action/Milestone	Short term (0-3 years)	Medium term (3-7 years)	Long term (>7 years)
Create a decision tree for the selection of impact categories for a particular application, and instructions for how to document the choice	Yellow		
Identify a method to handle impact categories where the differences are not clear due to uncertainty	Yellow		
Identify a method to normalize results to highlight which categories are most important to the decision	Yellow		
Identify a method (or methods) to assess tradeoffs that works for those familiar with LCA	Yellow		
Create a decision tree to select a method (if more than one identified), and instructions for how to document the choice	Red		
Identify a method (or methods) to assess tradeoffs that works for those not familiar with LCA		Yellow	
Create a decision tree to select a method (if more than one identified) , and instructions for how to document the choice		Red	
Identify a method (or methods) to assess tradeoffs including social and economic impacts that works for those familiar with LCA		Yellow	
Create a decision tree to select a method (if more than one identified) , and instructions for how to document the choice		Red	
Identify a method (or methods) to assess tradeoffs including social and economic impacts that works for those not familiar with LCA			Yellow
Create a decision tree to select a method (if more than one identified) , and instructions for how to document the choice			Red
Identify data presentation techniques that work for those familiar with LCA	Yellow		
Create a decision tree to help in the selection of data presentation techniques	Red		
Identify data presentation techniques that work for engineers (including those not familiar with LCA)		Yellow	
Create a decision tree to help in the selection of data presentation techniques		Red	
Identify data presentation techniques that work for executives and/or policy makers		Yellow	
Create a decision tree to help in the selection of data presentation techniques		Red	
Identify data presentation techniques that work for consumers			Yellow
Create a decision tree to help in the selection of data presentation techniques			Red

Solutions known, being optimized	Solutions available which may work	No known solutions
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Experiences and Recommendations from Thailand

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Objectives – Questions to address

Addressing the following --

Mainstreaming

- Define and confirm the needs (industry, government, NGOs)?
- Where are we now (specify the starting point)?
- Is the national life cycle network sufficiently active?
- Who is planning to do what in the short term?
- Which sectors are active and which need to be activated?
- Where do we need to go (destination goal and objective)?
- Who could do what and when?

Development of national LCI database

- Which datasets exist?
- What are the core datasets for the country?
- Should datasets be created or adapted?
- Who needs to be involved and when?
- Who could be the database manager?
- How to connect regionally or internationally?

Classroom Exercise – Building the Roadmap

Roadmap Creation Process:

1. Divide into smaller groups according to the following roadmap elements/activity tracks - a. **Data, Datasets & Quality Assurance, including Review**; b. **Global Network Connection and Database Structure/Setup/Operations**; c. **Mainstreaming, Communications and User Support**; and d. **Governance and Management, including Business Planning and Funding**.
2. Create an activity-based timeline for your track. Use the colored Post-It Notes assigned to your group. Begin with 2018 and explicitly include all activity for each year through 2022. If an activity extends beyond 2022, show it as “2022+” .
3. Show all critical milestones (achievements and deliverables) and identify key actors and their relationships.
4. Show all dependencies internal to your activity track with arrows.
5. Once the track is completed, consider any inter-activity connections to be added to the composite roadmap.
6. Select one member of the group to spend up to 10 minutes explaining your activity track and moderating the full group discussion, including answering any questions from the other groups.
7. Add cross-connection arrows as needed.
8. Spend up to one hour discussing the overall results and next steps.