Sustainable Recycling Industries
Component A: Life Cycle Inventories

Invitation to tender for LCI data collection and submission to ecoinvent Centre

February 2017
Zurich
1 February 2017

Call for Tenders

for Life Cycle Inventory (LCI) data collection, LCI dataset creation and submission to ecoinvent

This is an open invitation for tender.

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1. Background & project description

eroiven is the world’s leading supplier of consistent and transparent LCI data of renowned quality. ecoinvent is a proud partner of the Sustainable Recycling Industries (SRI) programme, a programme funded by the Swiss State Secretariat for Economic Affairs (SECO) and jointly implemented by the Swiss Institute for Materials Science & Technology (Empa), the World Resources Forum (WRF) and ecoinvent, through three interconnected programme components:

Component A - Life Cycle Inventories: SRI gathers and provides local LCI data for the assessment of agricultural and industrial activities through the enhancement of local and regional LCA expertise with the aim to provide freely available regionalized LCI data for Latin America, India, and South Africa

Component B - Recycling Initiatives: SRI improves local capacity for sustainable recycling activities together with private and public institutions, as well as the informal sector in a number of partner countries (Peru, Colombia, Ghana, Egypt, India)

Component C - SRI Roundtable: SRI facilitates a stakeholder consultation for the development of sustainability criteria for secondary raw materials

ecoinvent is in charge of component A of the SRI project.
With this call ecoinvent aims to subcontract the task of LCI data collection, dataset creation and submission to the ecoinvent database.

2. Eligibility Criteria

Proposals can be submitted by public and/or private entities which are eligible according to their respective national/regional regulations, such as, but not limited to higher education institutions, public research institutes, private research institutes, companies, etc.

Tender shall come from an institution based in Peru, Brazil and Colombia, or a partnership of institutions (consortium) including at least one eligible partner from the above geographies. In case of a consortium, at least 80% of the budget shall be assigned to the institution(s) based in Latin America. The number of project partners should be reasonably balanced to correspond to the aims, duration and deliverables of the project.

No subcontracting of tasks to external institutions is permitted.

3. Task description
The tender shall collect LCI data, to provide new undefined Unit Process (UPR) LCI datasets in ecospold2 format, related to fisheries and aquaculture in Latin America. The tenderer(s) shall submit the datasets to ecoinvent through appropriate means as explained in this Call for Tender (CfT). In more detail, the tender shall collect LCI data, construct datasets in the form of undefined unallocated unit process (UPR) activities, validate the constructed datasets to ensure consistency and compliancy with the ecoinvent version 3 quality guidelines, document these datasets, submit them to ecoinvent v3 database by employing the free ecoEditor software, and apply the corrections required by editors and reviewers organized by ecoinvent until the acceptance of the datasets by the ecoinvent in the form of publication in a release of the ecoinvent database.

The data collection activities shall be carried out according to the scope (type of sector and geography) of this CfT, as shown in Table 1. Appendix B contains specifications on the requests for this tender.

<table>
<thead>
<tr>
<th>Table 1: Scope of required LCI data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography</td>
</tr>
<tr>
<td>Sectors</td>
</tr>
<tr>
<td>Sub-sectors</td>
</tr>
</tbody>
</table>

The data provider shall report to and collaborate with the ecoinvent management and respective editors during different phases of the project. A more detailed task description includes:

a. **LCI data collection**
   - Acquiring data, which are needed for the creation of datasets in undefined unallocated UPR format, through appropriate and coherent means, such as field measurements, interviews, questionnaires, literature research, estimations or calculations, for the sectorial data detailed in Table 1. The data represents the information required to create transforming datasets (LCI data), as well as Market datasets. The data collection project has to be carried out in alignment with Data Quality Guidelines for the ecoinvent database version 3.

b. **UPR LCI datasets creation and entry to ecoEditor**
   - Using the collected data, construct LCI datasets in the form of UPR. The dataset creation has to conform to the instructions provided in the ecoinvent Data Quality Guidelines of version 3. Existing ecoinvent datasets may serve as starting point or template for such datasets. Datasets shall integrate with and build on top of the existing ecoinvent database.
   - Enter the created datasets in the ecoEditor tool, i.e. the tool to create, edit, review and upload datasets for the ecoinvent database, to create LCI datasets in ecoSpold 2.
format. The software “ecoEditor for ecoinvent version 3” is free to use and can be downloaded from the ecoinvent website.

c. Datasets validation: compliancy and consistency
   - Run the off-line and on-line validation checks of datasets created in ecoEditor software, using the respective functions of the software, according to the instructions provided in chapter 12 (Validation and review) of Data Quality Guidelines of ecoinvent version 3.
   - Perform an internal review of the created datasets to ensure comprehensiveness, adherence to the quality guidelines (compliancy with ecoinvent version 3), consistency with similar activities in other geographies or using similar technologies, and to eliminate data entry errors.

d. Datasets documentation
   - Document the UPR datasets to be compliant with the ecoinvent “good practice for documentation”, as described in section 7 of the Data Quality Guidelines for the ecoinvent database version 3.
   - Provide a thorough “sectorial overview” report presenting all the information valid for the datasets submitted, and covering background information for the concerned sector and geography. Such a report shall help the users better understand the documented sector, provide the goal and scope of different LCI datasets, and provide reference to any overarching model that has been implemented in the LCI datasets. This report serves as supporting information to the documentation present directly in the datasets.

e. Datasets submission and integration into ecoinvent database
   - Gather the necessary information for submission according to the Data Quality Guidelines of ecoinvent database version 3, and submit the undefined unallocated UPR datasets to ecoinvent by using the ecoEditor. The submission process has to be done according to the procedure detailed in Data Quality Guidelines of ecoinvent database version 3.
   - Upon receiving the feedback from the ecoinvent editors as well as its external and the technical reviewers, apply for the corrections required by the editors until the final acceptance of the datasets by the ecoinvent. This is an iterative process, and it is concluded when Life Cycle Impact Assessment (LCIA) results are checked and approved by the data provider as well as ecoinvent and the datasets are published in a release of the ecoinvent database.

4. List of deliverables

A set of LCI datasets (undefined unlinked UPRs), in ecospold2 format, which has been constructed, documented and reviewed according to the quality requirements of ecoinvent version 3, submitted to ecoinvent through the ecoEditor, and passed the review and validation phase of ecoinvent management and its editors to be published in a release of the ecoinvent database.

The datasets and the related documentation shall be provided in English language.
5. Support during project implementation

Ecoinvent management and its editors, who will be selected based on the type and sector of the LCI data, will provide support and guidance to a certain extent during different phases of data collection, dataset creation, review and submission processes. Table 2 demonstrates the supporting role of ecoinvent management and its editors in different phases of project implementation.

Table 2: Supporting role of ecoinvent during different phases of data submission

<table>
<thead>
<tr>
<th>Data provider</th>
<th>ecoinvent management</th>
<th>ecoinvent editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission of the list of data to be collected and datasets to be developed</td>
<td>Identify and contact the responsible editor</td>
<td>--</td>
</tr>
<tr>
<td>Data collection</td>
<td>Guidance during the data collection and modelling</td>
<td>Guidance during the data collection and modelling</td>
</tr>
<tr>
<td>Dataset creation, entry into ecoEditor, and datasets validation</td>
<td>Guidance during the dataset creation in the ecoEditor and datasets review</td>
<td>--</td>
</tr>
<tr>
<td>Submission of datasets into review</td>
<td>Guidance during the dataset submission</td>
<td>Start reviewing the dataset, enter notes on what shall be corrected</td>
</tr>
<tr>
<td>Final submission of datasets following the review of ecoinvent</td>
<td>Approval of the dataset</td>
<td>Approval of LCIA results</td>
</tr>
<tr>
<td>Checking and Approving the LCIA results after integration of the datasets into the working version of ecoinvent database</td>
<td>Upload the datasets to ecoinvent database and extract and send out the LCIA results to the data provider</td>
<td>Approval of LCIA results</td>
</tr>
<tr>
<td></td>
<td>- Guidance during the LCIA results verification</td>
<td></td>
</tr>
</tbody>
</table>

6. Reporting procedure
In order to ensure successful completion of the project, the data providers shall report to ecoinvent, through appropriate means such as telephone conversation or written documents, the status and progress of the project according to the original plan of action submitted along with the proposal.

7. Transfer of rights and acknowledgements
During the submission process submitters will be asked to grant ecoinvent the non-exclusive right to use the dataset. All copyrights to the submitted data remain with the authors of the dataset. The exact text of this agreement follows:

"I confirm to hold the copyright to the uploaded data and to be entitled to dispose of these copyrights. I hereby transfer the non-exclusive right of use of the uploaded data to the ecoinvent for publication in the ecoinvent database, including but not limited to the right to publish, republish, transmit, sell, distribute, modify, change, complete and otherwise use the contributed dataset in electronic and print form and in derivative works throughout the world, in all languages, and to license or permit others to do so. This transfer of non-exclusive right of use cannot be withdrawn without a full payment of compensation to the ecoinvent to cover damages or a replacement of the withdrawn data. I maintain the right to use the transferred data for my own scientific work as well as to use it with third parties on a non-exclusive basis, including for commercial purposes."

In addition, the funding and supporting institutions in collecting the LCI data and preparing the datasets shall be acknowledged.

8. Schedule and timeframe

It is required that data collection, submission and corrections can be committed to be finalized until the end of September 2017. The tenderers shall provide a precise schedule according to which they would start and finalize each of the tasks described in the “Task Description” section of this CfT.

Within one month of the start of the project, the data provider shall submit to ecoinvent the updated list of data to be collected and datasets to be developed. This list shall include all the datasets included in the original proposal for the CfT, as well as any related datasets that will be required to be submitted along with the datasets in the proposal, in order to make the submission version 3-compliant.

Furthermore, early commencement of datasets submission to ecoinvent—e.g. within three months of the start of the project—to allow for a prompt review procedure by ecoinvent and its reviewers, is highly recommended and valued.

9. Budget
The funding to carry out the subcontracted tasks is limited to CHF 20,000 (twenty thousand Swiss Francs), including any applicable VAT. This budget (CHF 20k) determines the ceiling cost to execute the project and offers significantly below the ceiling are rewarded extra points in the evaluation phase. The budget shall include all costs, including personnel and operational costs to carry out the project. The contract will be issued in CHF.

10. Application requirements

Interested tenderer(s) shall provide a list of LCI datasets they propose to submit—accompanied by a short description of the main features/contents of datasets and their divergence from similar datasets in Appendix C—as well as the estimated time (in terms of hours) to create and submit each batch of datasets. The tenderers shall also indicate in the proposal the different proposed activities to realize the aims of this tender, namely the methodology/strategy employed to collect LCI data for updating/creating the submitted datasets. Such information shall be provided to ecoinvent by filling-in the Table A.1 provided in the Appendix A of this CfT.

The tenderers shall also indicate in the proposal the required budget to carry out the LCI data collection and delivery.

In addition, the tenderer(s) must demonstrate that they possess the resources and thus are competitive enough to fulfill the aforementioned project. The tenders shall provide the name and CV of all the key persons who will participate in different tasks of the data collection project, along with their expertise level, estimated time devoted to the project, and their respective charging fee (per day).

11. Evaluation criteria

The assessment to select the project partner(s) will be based on the following criteria:

*Composition of the tenderer(s), expertise and experience of the institution or combination of institutions (50%)*

- Composition of the Tenderer(s), with higher points awarded to consortia of institutions (Min=1, Max=10)
- demonstrated knowledge and expertise in the sector detailed in Table 1 of this CfT (Min=1, Max=5)
- experience in LCA and LCI data collection activities, specifically related to the activities/sectors detailed in Table 1 (Min=1, Max=5)
- experience in working with ecoinvent version 3, and in data submission process to ecoinvent version 3, using the ecoEditor tool (Min=1, Max=5)

*List and quality of proposed deliverables (50%)*
- type, quality, and quantity of the LCI data the tender would commit to submit to ecoinvent database, which shall be related to sectors listed in Table 1 and Table B.1 for Latin America (Min=1, Max=15)
- a timetable that presents the plan according to which the tender intends to deliver each type of dataset (or batch of datasets), with speedier delivery being considered a bonus (Min=1, Max=5)
- integrability of the LCI data with the existing data in the ecoinvent database (Min=1, Max=10)
- required budget to carry out the proposed project, with offers significantly below the maximum amount of CHF 20’000 being rewarded extra points up to the maximum for free offers (Min=1, Max=5)

12. Question and answer period

A question and answer period is envisaged for interested parties to submit questions related to the preparation and submission of the full proposal. All such inquiries and technical questions shall be directed to Amir Safaei via email: safaei@ecoinvent.org. The deadline to register your questions is **15th of February 2017**.

13. Closing date for proposal submissions

22nd of February 2017

14. Submission procedure

Tenderers shall submit tenders by email to safaei@ecoinvent.org before the closing date for proposal submission indicated above.

The evaluation will be performed within two weeks of the deadline for tender and the bidders will be informed immediately. The draft contract will be issued within 2 weeks after the selection of the successful bidder and work has to start within one weeks after the signature of the contract. In case of any questions, please contact Amir Safaei at safaei@ecoinvent.org.
Appendix A

Scope of the data call: list of datasets

Table A. 1: Proposed dataset submission template (includes example data that can be discarded)

<table>
<thead>
<tr>
<th>Process (activity) name</th>
<th>Number/detail of related UPRs</th>
<th>Hours required to gather/submit data</th>
<th>Proposed delivery date</th>
<th>Similar existing global datasets in ecoinvent (if any)</th>
</tr>
</thead>
</table>
| Soybean production      | 4 regions, plus required datasets on deforestation and land transformation, as well as 4 datasets for organic fertilizer not present in ecoinvent so far, plus 1 irrigation dataset for India adapted from existing ecoinvent data | 48 | 4 months after contract signature | - Soybean production  
- Soybean production, on land recently transformed |
| Chicken production      | 1 dataset on chicken production, 1 dataset on feed | 6 | 4 months after contract signature | |
| Cement production       | 4 states in India, plus required datasets (8 total) on upstream processes of clinker production | 20 | 4.5 months after contract signature | - Cement production, Portland, CH 2010 |
Appendix B

Scope of the call: list of LCI datasets

The main purpose of this CfT is to collect LCI data, in order to create unlinked undefined UPR LCI datasets in ecospold2 format related to the capture fisheries and aquaculture sector in Latin America. The focus is on the main commodities produced, consumed locally and exported. The datasets shall represent the standards/practices and the exercised in Latin America.

The tenderer(s) shall supply the LCI datasets representing the different stages of capture-fish and aquaculture productions. Figures B.1 and B.2 show a simplified flowchart of lifecycle stages of capture fisheries and aquaculture systems, respectively. The LC stages which occur inside the system boundary designate the stages for which the LCI data should be collected and supplied. If a certain infrastructure for a product/service does not exist, the data provider shall also provide the datasets representing the infrastructure required to deliver the product/service. For this, and in general for the development for the work for this CfT, the existing datasets in ecoinvent can be adapted and/or directly used to develop the datasets.

The functional Unit of the datasets shall represent 1 kg (ton) of landed live catch fish at the harbor (for catch fish) Or 1 kg (ton) of live fish at farm gate (for aquaculture).

Figure B.1: LC stages of catch-fish industry
Additionally the tenderer(s) shall provide the information to create and update the Market datasets for the primary-, intermediate-, and final-products linking to/from the above datasets, namely information on average transportation distances, warehousing, transportation, and trade losses.

Table B.1 summarizes the list of products which are mandatory and or desired (optional) to be supplied as a part of this call for tender. **In order to qualify for this call for tender, the products designated as mandatory in Table B.1 shall be supplied.** The delivery of datasets related to the products designated as “optional” is not a prerequisite, but the tender receives a bonus during the evaluation phase if committed to provide them. The list in Table B.1 stands as the minimum deliverables for this CfT, but the products are not limited to the ones listed. Any other product not listed below but falls in the scope of this CfT (Table 1), is eligible for this CfT and the data provider would similarly receive a bonus if committed to provide them. In such a case, the product (type of fish species) to model for capture and aquaculture is the responsibility of the data provider and is considered as a criteria in the evaluation phase. The focus should be on the main species produced, consumed locally and exported according to the scope of the call (Table 1 of this CfT).

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**Figure B.2: LC stages of aquaculture industry**
<table>
<thead>
<tr>
<th>Type of product/specie</th>
<th>Production type</th>
<th>Region</th>
<th>Mandatory/optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoveta (Peruvian anchovy)</td>
<td>Marine capture</td>
<td>Peru</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Atlantic salmon (Salmo salar)</td>
<td>Marine and coastal aquaculture</td>
<td>Peru/Chile</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Tilapia</td>
<td>Inland aquaculture</td>
<td>Brazil</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Fish meal and fish oil*</td>
<td>n.a.</td>
<td>Peru</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Fish feed (other than fish meal and oil)</td>
<td>Feed production</td>
<td></td>
<td>Mandatory</td>
</tr>
<tr>
<td>Peruvian Hake</td>
<td>Marine capture</td>
<td>Peru</td>
<td>Optional with bonus</td>
</tr>
<tr>
<td>Marine Shrimp</td>
<td>Inland aquaculture</td>
<td>Brazil and/or Ecuador and/or Colombia</td>
<td>Optional with bonus</td>
</tr>
<tr>
<td>Trout</td>
<td>Inland aquaculture</td>
<td>Colombia</td>
<td>Optional with bonus</td>
</tr>
</tbody>
</table>

* based on main species for fish and oil production, namely Anchoveta