

Sustainable Recycling Industries

Providing the Seed for Sustainability

Measurements

Amir Safaei

International Project Manager

ecoinvent

Technoparkstrasse 1, 8005 Zurich, Switzerland



Challenge of sustainable supply chains

- Supply chains and environmental impacts are global...
 - Forecasts point to a growth in global trade and from developing countries
- There has been a growing global concern over the sustainability of goods and products
- Several public policy and private schemes are emerging and being promoted that require sustainability indexes
 - Sustainable public procurement policies
 - Environmental product declarations
- Such schemes are mainly (properly!) based on life cycle approaches and LCA
- A sound life cycle assessment requires data! and expertise...
 - While there is not sufficient **LCI** and **expertise** in emerging economies..

Sustainable Recycling Industries

component A: Life Cycle Inventories



A programme by Swiss state secretariat for economic affairs (SECO)

- Develop **LCA/LCI expertise** in the focus regions
- Bring together and nurture a **network of LCA experts** in the focus regions
- Collect, review, and provide **LCI data** of prominent sectors in each region
- Activities in Brazil, India, South Africa, Peru, Colombia
- 2015 to mid-2018

Capacity building and networking

- Regional Networks



- Capacity Building

- Raise awareness about the importance of LC thinking
- Develop local LCA skills and LCI creation skills
- Series of workshops, events, guidelines and materials by ecoinvent, local & int'l experts

- Data collection and provision

- Systematic tier based approach for data collection
- Data collection and submission by local and international stakeholders to also ... **build capacity for LCI data collection and dataset preparation**
- ecoinvent provides the necessary infrastructure for validation and publication of the data

Data collection and provision



LCI data

- Electricity generation and distribution
- Transportation of freight
- Heavy industries (cement & concrete, steel)
- Agriculture, animal husbandry, aquaculture
- **Formal & informal plastic recycling**
- Mining
- Precious and scarce metals
- textile
- Water supply
- Waste & waste water treatment

LCI data **freely available** to local communities as a consistent base for

- LCA and environmental studies
- Developing standards, product footprints and environmental labelling schemes
- Informed policy making based on representative verified data!

- While policy and industries aim for sustainability, there is a growing need for data and expertise to enable sustainability assessment
- SRI-LCI provides the seed of data and expertise required for sustainability assessment
- SRI on the ground level...
- SRI data and expertise can be used on a big picture to:
 - Assess the sustainability of national industries and global supply chains
 - Identifying the environmental hot spots and reducing the environmental impacts
 - Provide the basis for informed policy planning and standards development
 - Increase the achievability of SDG goals

