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VII International Conference on  
Life Cycle Assessment in Latin America

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# **Contribution of Social Life Cycle Assessment to reach the Sustainable Development Goals**

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# Introduction: Sustainable Development Goals (SDG)

- **Social sustainability** in general is addressed; poverty and inequality recognized as **multi-dimensional problems** (not only in monetary terms)
- **socio-economic improvements** regarding education, equal job opportunities, infrastructure, migration...





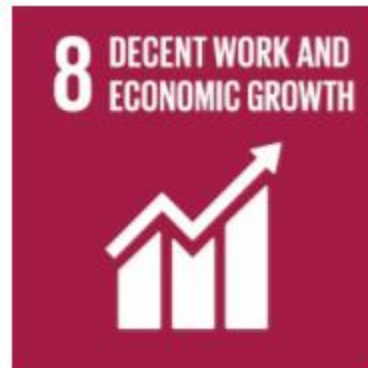
## Introduction: **SDG**

- Goal 12: Ensure **sustainable consumption and production** patterns → manage product impacts across entire **life cycles**
- **All governments** shall collaborate to strive to reach these targets, not only developing countries
- especially **large and multinational companies** are encouraged to adopt sustainable practices
- (Superordinate) core feature = strong focus on **means of implementation**, a.o. capacity-building and technology, as well as **data** and institutions
- **Social Life Cycle Assessment** (S-LCA) seems to be an adequate tool



# Methodology: S-LCA

- Technique to assess **social and socio-economic aspects** and impacts along the entire life cycle of products and services
- Basic approach defined by ISO 14040 and 14044
- In contrast to Environmental LCA, **positive and negative aspects** are included

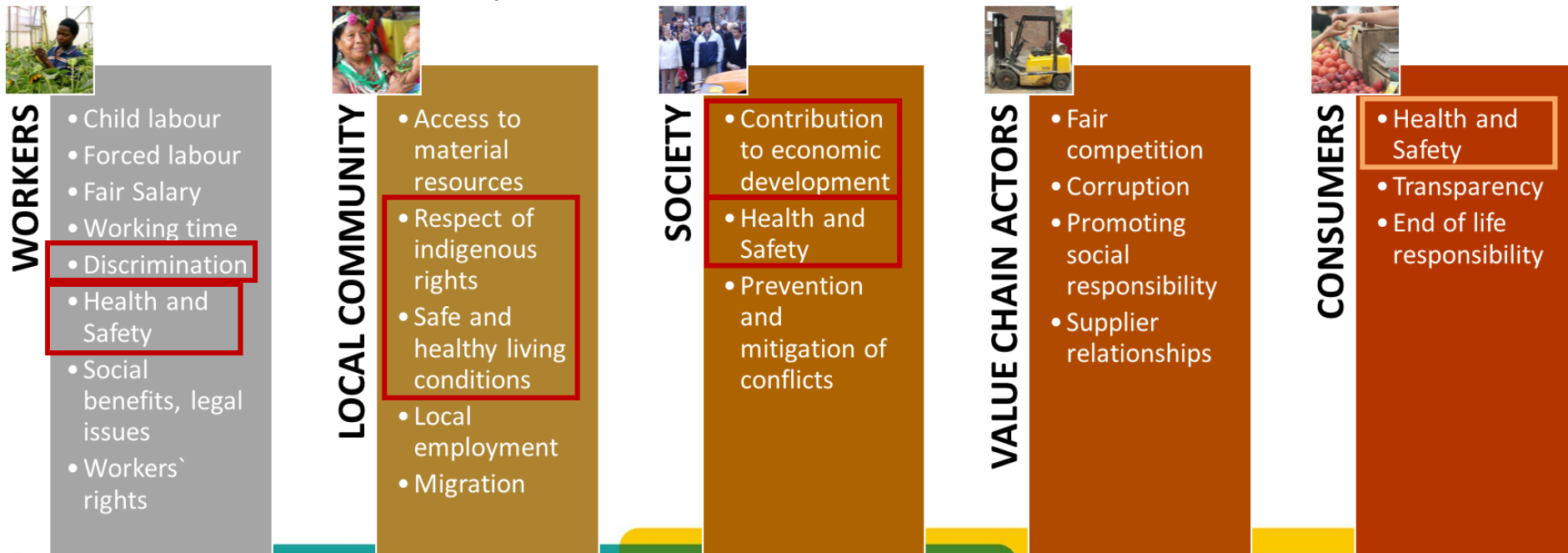


UNEP/SETAC 2009, p.3



# Methodology: S-LCA

- Impacts on **different stakeholders** are assessed, like workers, local communities, consumers...
- Impacts are grouped by **different categories** measured by several indicators







## Methodology: Example case study

- Conventional **cotton T-Shirt** without printing
- Based on data from (literature) research, and **PSILCA** database for background system (in openLCA)
- Rudimentary impact assessment method used





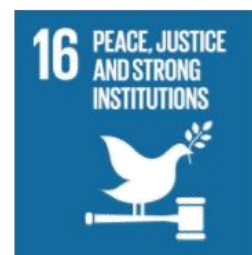
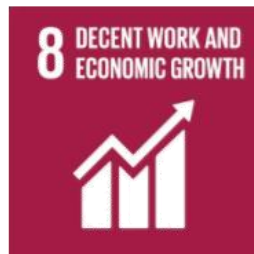
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# Results: S-LCA and SDG

- Many goals are already directly addressed by indicators



<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>



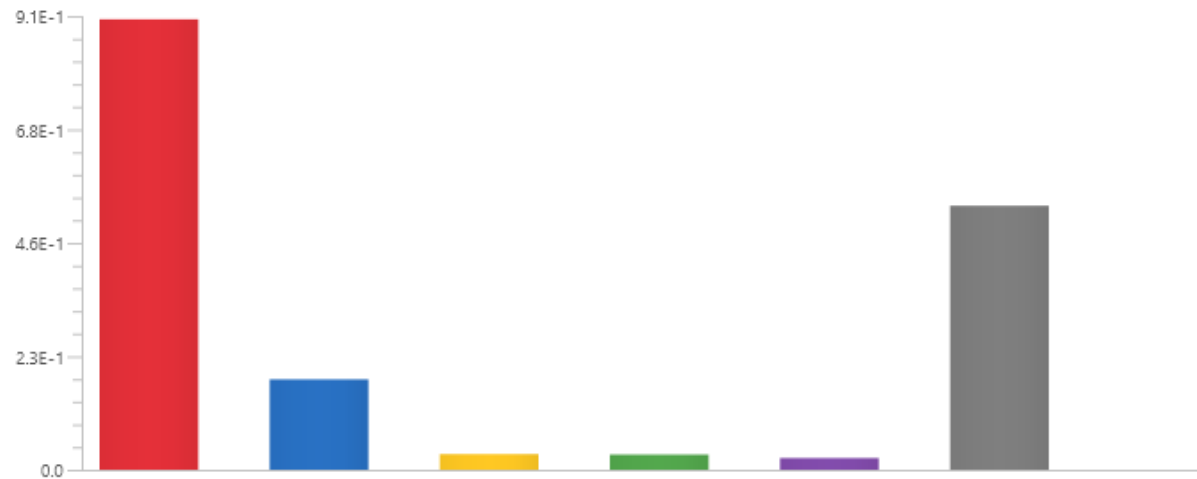
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# Results: Direct process contributions

Impact category: Gender wage gap



0.903 GW med risk hours: Production of T-Shirt - BD

0.181 GW med risk hours: Retail of T-Shirt - DE

0.031 GW med risk hours: Transport - BD

0.030 GW med risk hours: Research and development - DE

0.024 GW med risk hours: Textiles and Wearing Apparel - BD

0.530 GW med risk hours: Other



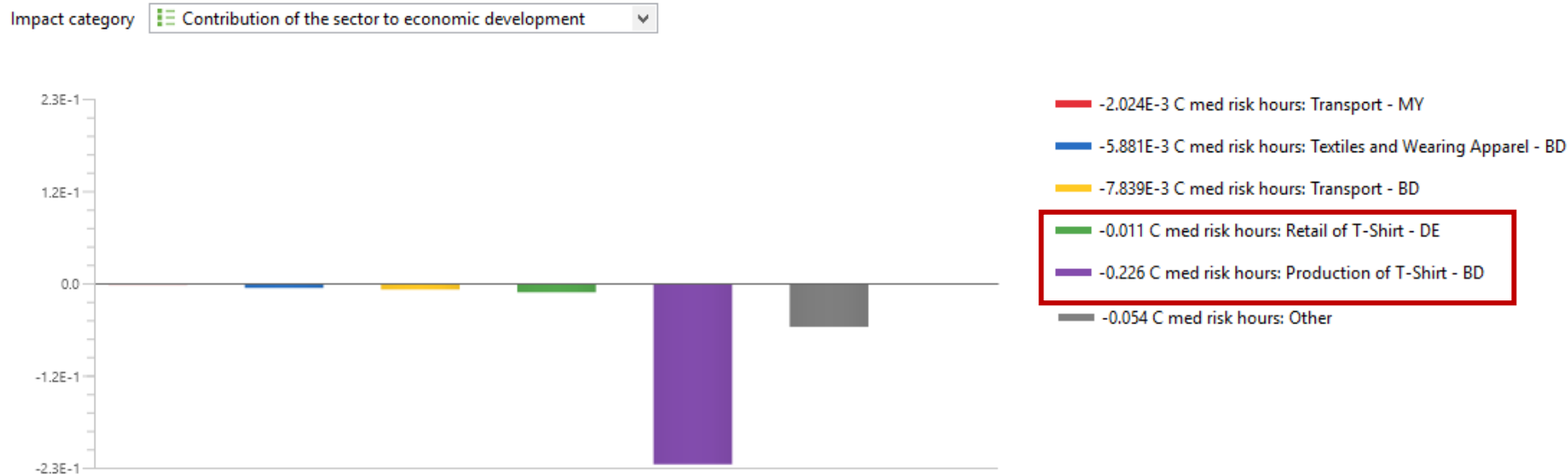


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# Results: Direct process contributions









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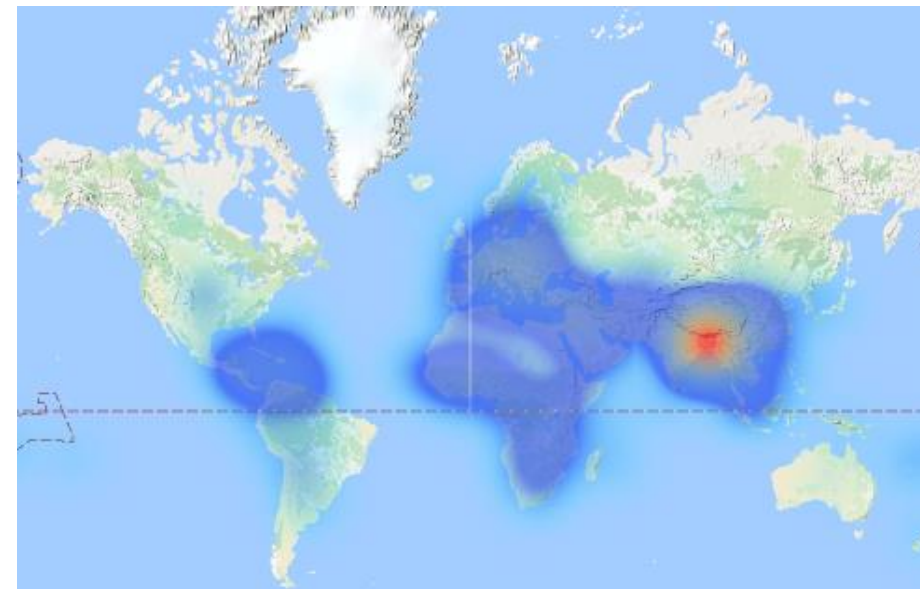
# Results: Locations

## Association & collective bargaining

Location/Process	Amount	Unit
>  Bangladesh - BD	2.92101	ACB med risk hours
>  China - CN	0.32579	ACB med risk hours
>  Malaysia - MY	0.13756	ACB med risk hours
>  United States - US	0.12811	ACB med risk hours
> Mexico - MX	0.04472	ACB med risk hours
> Germany - DE	0.03404	ACB med risk hours
> Argentina - AR	0.02616	ACB med risk hours
> India - IN	0.01848	ACB med risk hours

## Contribution to economic development

Location/Process	Amount	Unit
> Turkey - TR	-0.00124	C med risk hours
> Argentina - AR	-0.00200	C med risk hours
> Mexico - MX	-0.00319	C med risk hours
> Malaysia - MY	-0.00321	C med risk hours
> India - IN	-0.00337	C med risk hours
>  China - CN	-0.00738	C med risk hours
>  Germany - DE	-0.01560	C med risk hours
>  United States - US	-0.01599	C med risk hours
>  Bangladesh - BD	-0.24421	C med risk hours





# Conclusions: Contribution of S-LCA to SDG

## MEASURE

- As a **tool** to contribute systematically to achieve SDG through **methodology and provision of data**
- **Subcategories and indicators** are very similar
- **Detect** concrete social hotspots and **quantify** them:
  - Unit processes as **sectors and activities**
- S-LCA **reveals relevant spheres of influences** on business and governmental levels



# Conclusions:

## Contribution of S-LCA to SDG

### MANAGE

- **Identify** critical products and sectors to **prioritize**  
– on national and global level
- **Define approach, steps** to reach targets and **hierarchy** of targets and goals
- **No burden-shifting** → **all governments** are responsible
- By repeating analyses → **review progress**



# Conclusions:

## Contribution of S-LCA to SDG

### REACH

- By targeted (development) cooperation

#### On **policy level**:

- Prioritize critical “country-specific” SDG/ targets
  - adapt **national and international laws and trade regulations** to the SDG; revise implementation

#### On **company level**:

- assume **more responsibility** in branches and value chain
- Implement **better sustainable business practices**
- Offer **targeted CSR activities**





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# Muchas gracias!

## GreenDELTA

sustainability consulting + software

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