

Regionalisation in social LCA

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Content

- Indicators considered
- Quantification of indicators
- Country, industry, enterprise variation

Social indicators

Net list of 30 social inventory categories.

Examples: Missing education, Corruption,
Missing property rights, Unequal treatment,
Occupational health, Trade barriers, ...

Filter out those categories that relate only to
activities of government

Short list of 14 social inventory categories that can
be influenced by industrial activities

Quantitative social pressure categories (complete list):

Occupational health	Unequal opportunities
Productivity loss from missing education	Inadequate access to health care
Productivity loss from corruption	Unemployment and underemployment
Effect of trade barriers	Inadequate access to pensions or social security
Labour rights violations	Stressful working conditions
Productivity loss from lacking physical infrastructure	Poverty
Excessive work	Appropriation of indigenous resources

Criteria for selection of quantitative pressure (inventory) indicators

- Default data available from statistical sources at country and/or industry level
- Credible monitoring possible at factory / company level

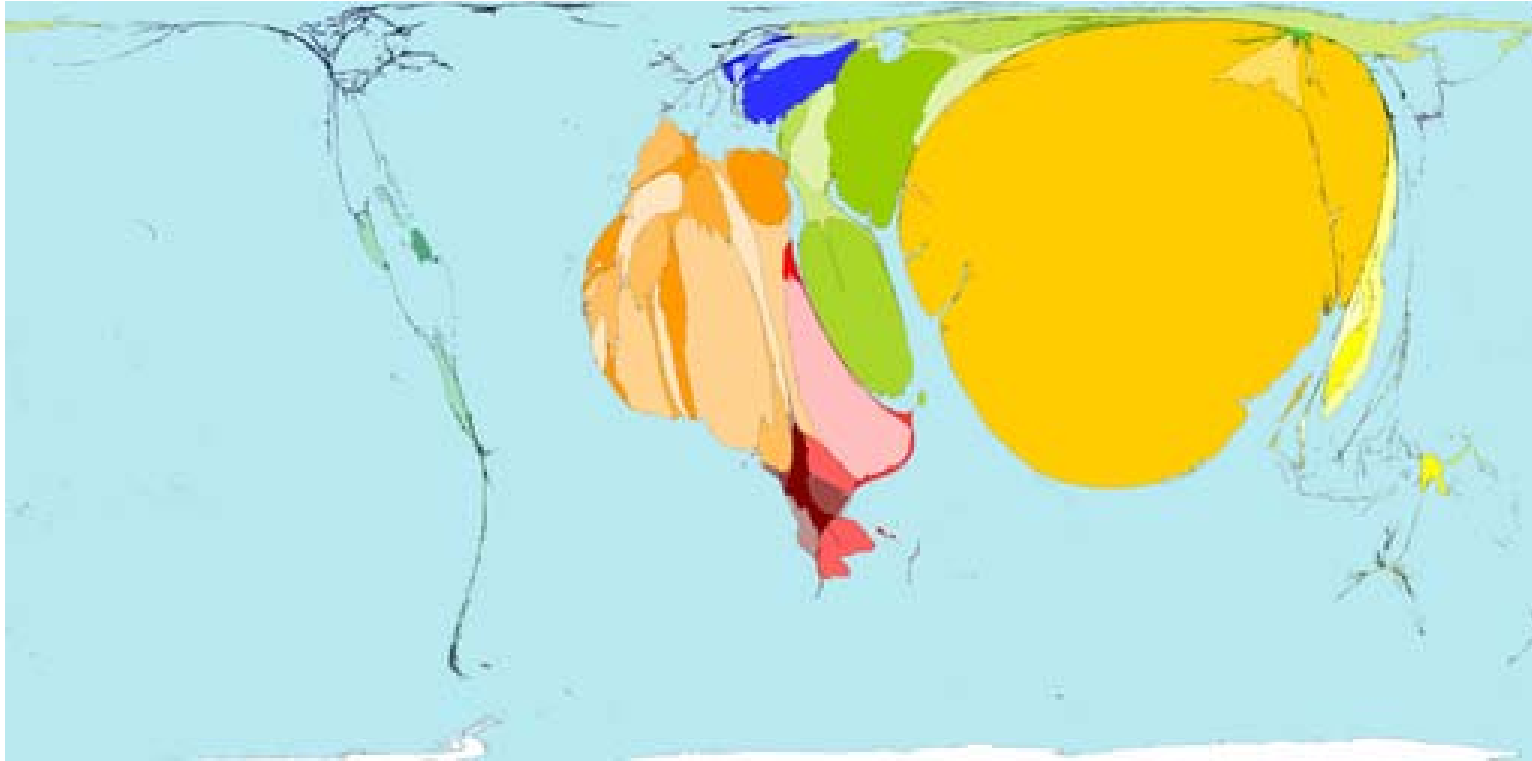
Missing education

(average: 15 school-hours lost per full-time worker =
110 USD/capita)

- Educational effects of child labour →
country statistics on schooling + industry
variation of child labour within countries
based on NGO statistics (e.g. Antislavery
International)
- Plant level audit data to claim to be better
than residual average, or to claim credits for
educational activities



Girls not in primary education



20

Lost work-days

(average: 0.75 lost days per 100 full-time worker =
140 USD/capita)

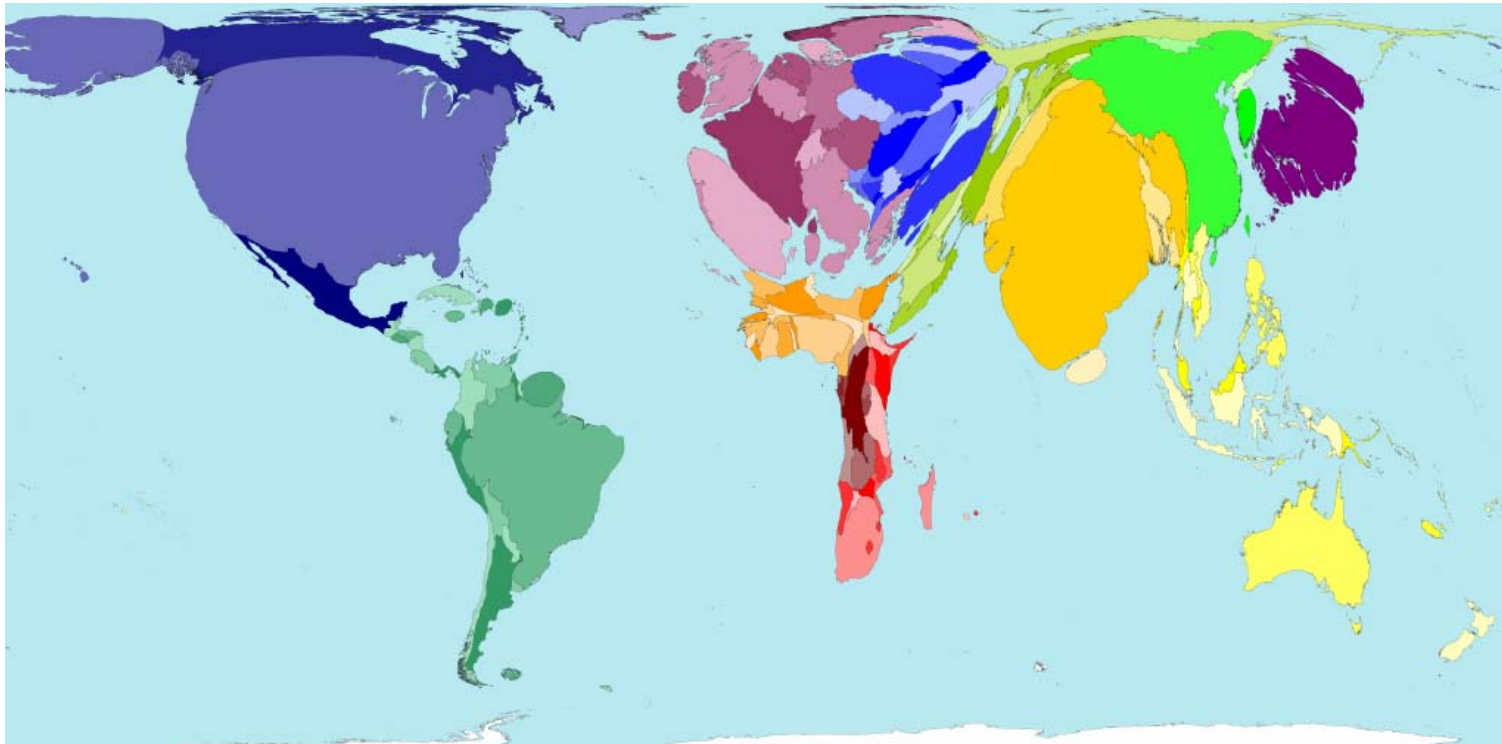
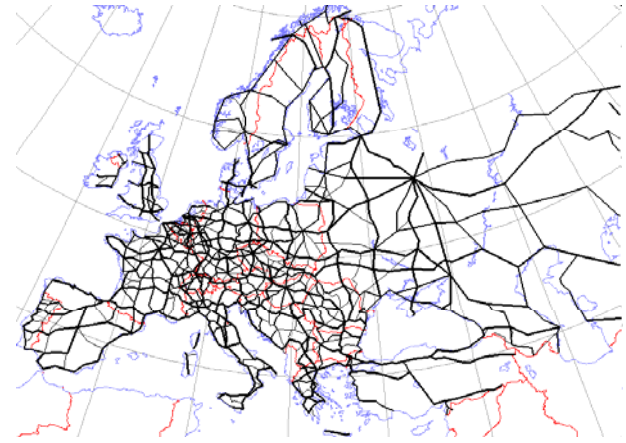
- Data sources: USDL, ILO CISDOC, WHO CCOH network
- Country variation → statistics uncertain
- Industry variation within countries more certain → extrapolate industry data from countries with good statistics, adjusting to country conditions
- Enterprise variation within industries → Plant level data and management system, to claim **20** to be better than residual average

Lacking physical infrastructure

(estimated global loss: 4500 USD/capita)

- Primarily a governance issue, thus mainly variation at country level → country statistics
- Enterprises' (positive) contributions can only be measured at the level of individual enterprises → national to very local!

Road network

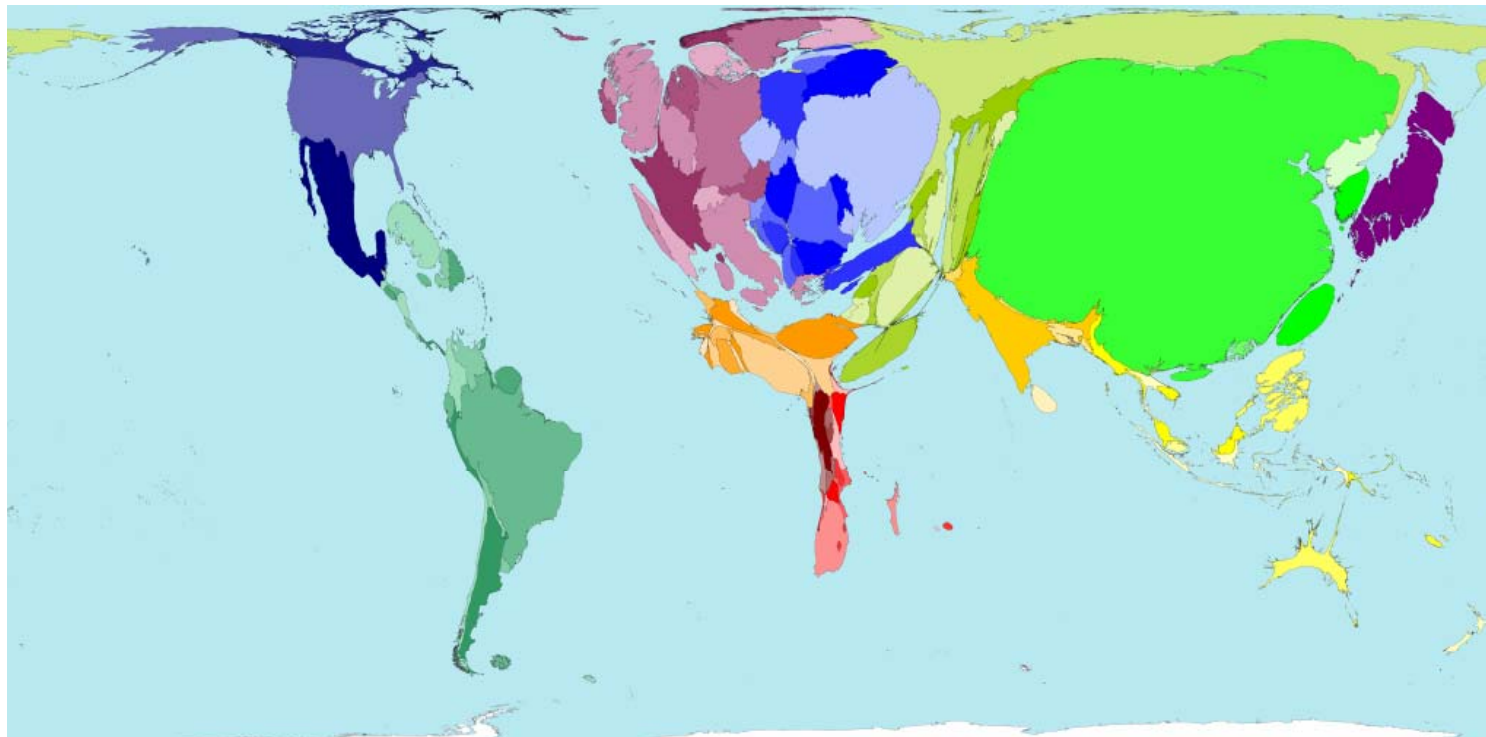


Labour rights violations

(average: 780 un-organised work-hours and 3.2E-6 reported violations per full-time worker – 1800 USD/capita)

- Data sources: ILO, ICFTU
- Large country variation and large industry variation within countries
- Enterprise: Plant level data available from labour unions

Organised labour



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Trade barriers/ (Perverse) subsidies

(average: 1650 USD/capita)

- Data available per product, per market
- Markets are typically national or supra-national

Excessive work

(average: 38 excessive work hours per full-time worker =
960 USD/capita)

- Data source: ILO
- Large country variation and large industry variation within countries
- Enterprise variation within industries →
Plant level data and management system, to
claim to be better than residual average

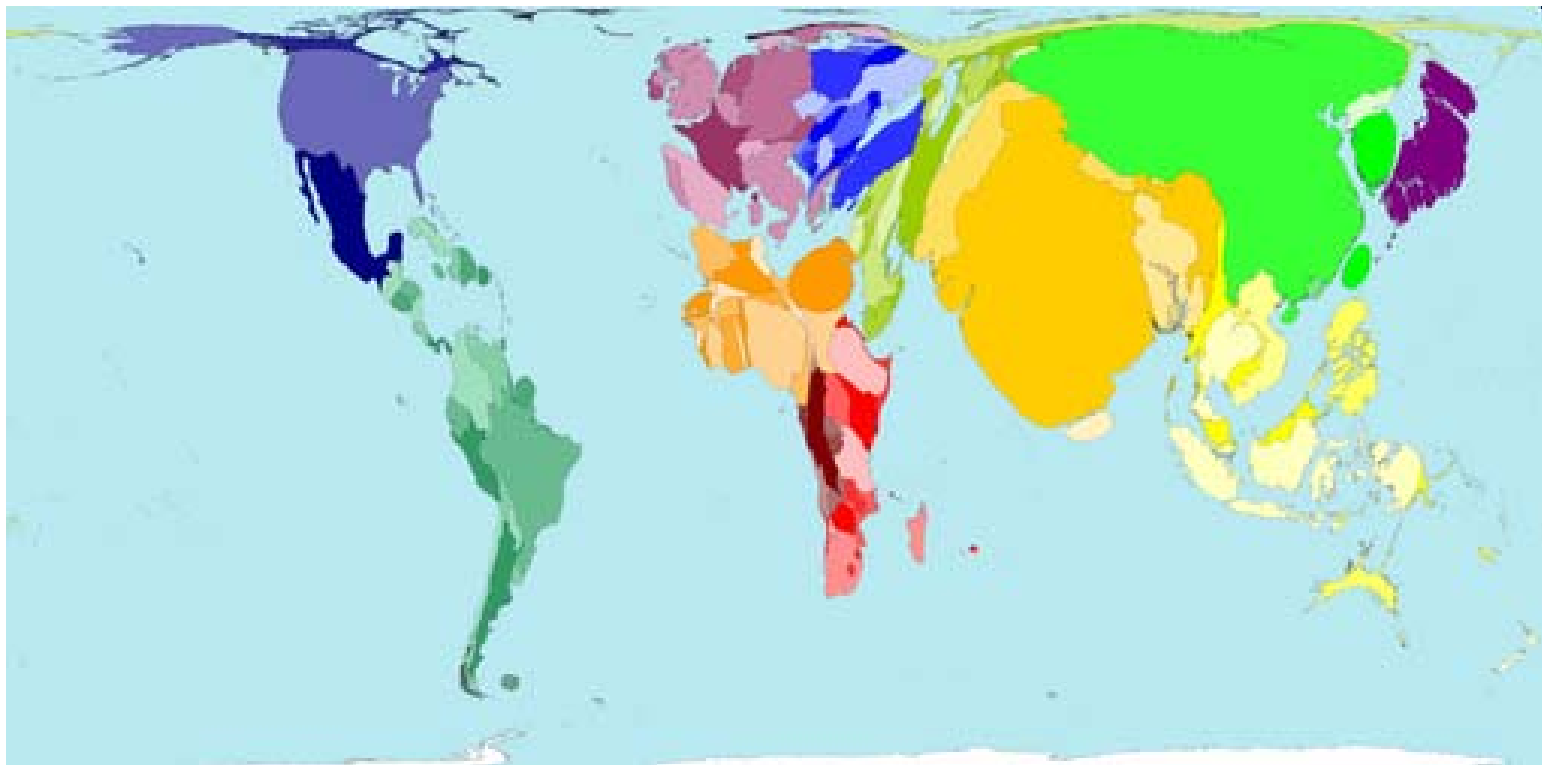
Inadequate access to health care

(average: 0.26 persons per full-time worker =
780 USD/capita)

- Data source: WHO Global Atlas of the Health Workforce
- Country variation and variation within countries
- Industry variation unknown
- Enterprise data on provision of access in areas where public access is inadequate



Access to health care



Wage inequality

(average: 1300 USD wages per full-time worker in excess of balanced composition relative to the recruitment base = 520 USD/capita)

- Statistics very poor in most countries and for most industries → some options for extrapolation?
- Global default + enterprise specific data

Why does regionalisation matter?

- Background level differs / marginal impacts
 - for some indicators: Missing education, lost work-days, infrastructure, access to health care
 - for others not: Subsidies, labour rights, excessive work
- Distributional aspects:
 - A change matters more for the less advantaged
→ distributional analysis (not only for social impacts!)

Global normalisation values (first estimate)

	USD/person	Relative
Occupational health	140	2%
Missing education	110	1%
Productivity loss from corruption	160	2%
Effect of trade barriers	1650	23%
Labour rights violations	1820	25%
Excessive work	960	13%
Unequal employment opportunities	520	7%
Inadequate access to health care	780	11%
Inadequate access to pensions or social security	330	5%
Stressful working conditions	730	10%
Total social impacts attributable to industry	7200	100%

For comparison: Norm. ref. for biophysical impacts: 3000 USD/person