Social Sustainability

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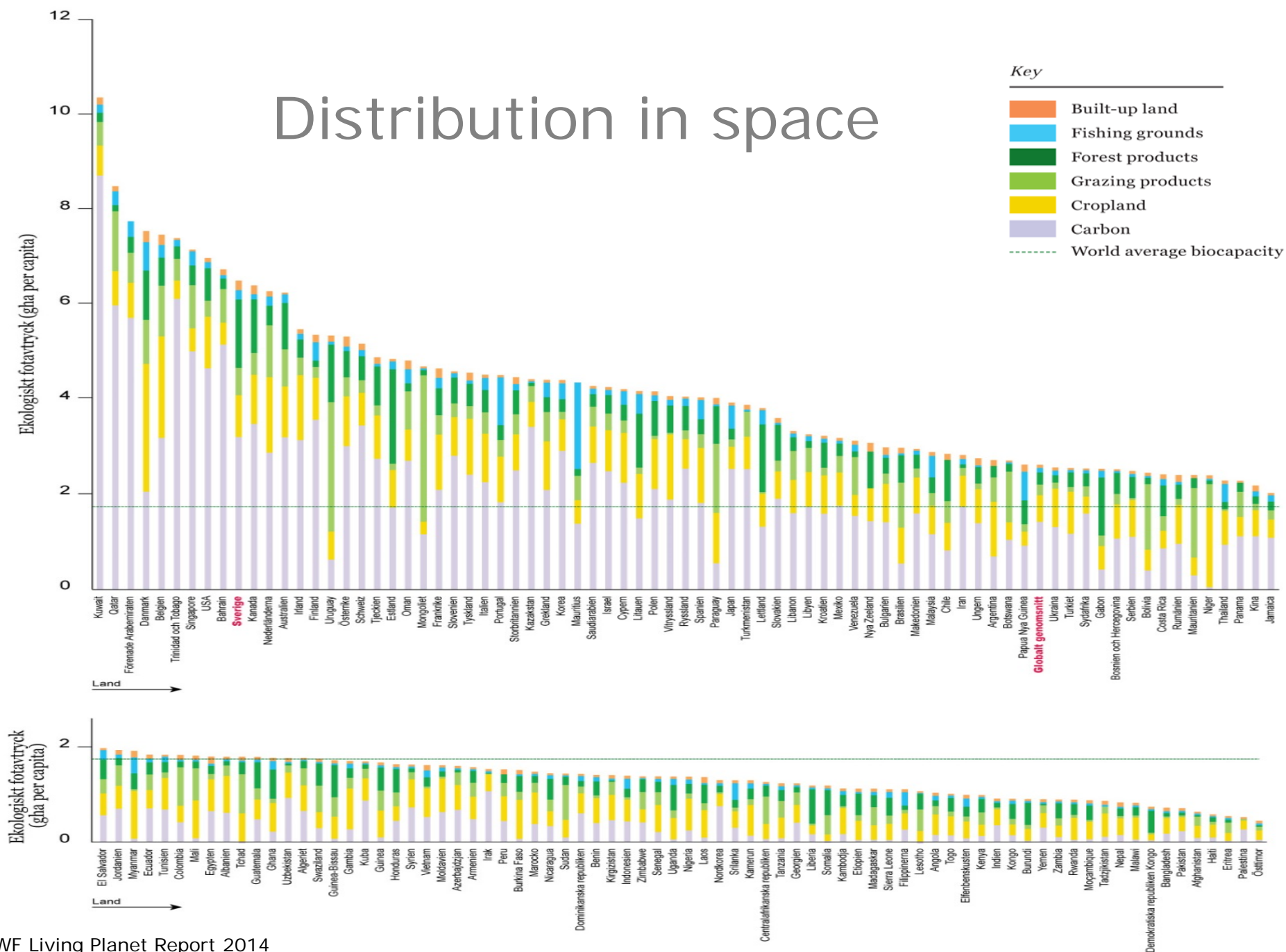eep@kth.se

The Brundtland definition

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"

"...in particular the essential needs of the world's poor, to which overriding priority should be given"
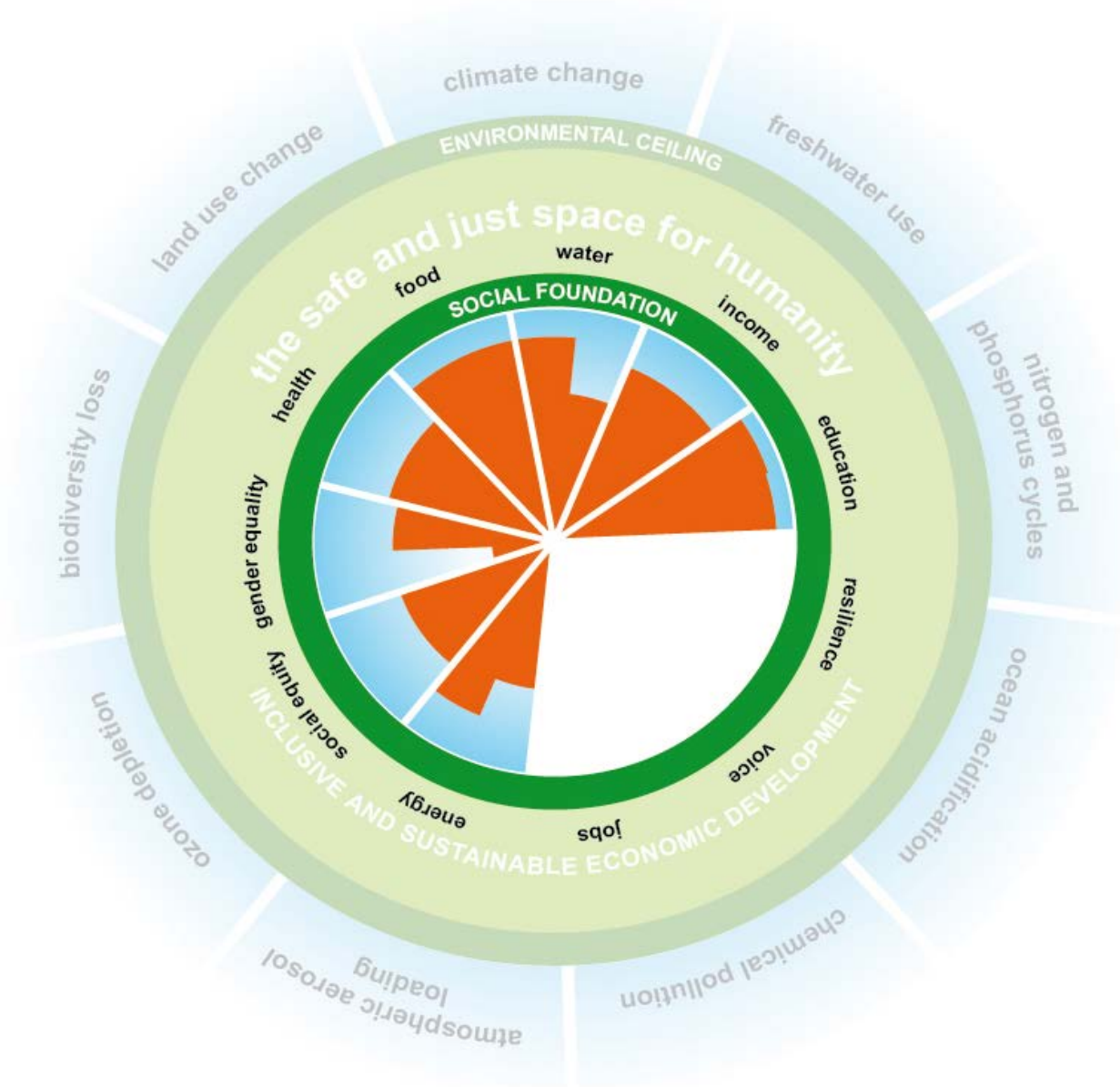
Fairness in space and time

- Intra-generational distribution
  - How well-being is distributed among people today
  - Brundtland: *"Sustainable development is development that meets the needs of the present..."* ..."*...giving overriding* **priority to the poor***...."*

- Inter-generational distribution
  - How well-being is distributed among different **generations**, including **future** ones
  - Brundtland: *"...without compromising the ability of future generations to meet their own needs."*

Distribution in space

Key
- Built-up land
- Fishing grounds
- Forest products
- Grazing products
- Cropland
- Carbon
- World average biocapacity

WWF Living Planet Report 2014

Social Foundation in the Doughnut
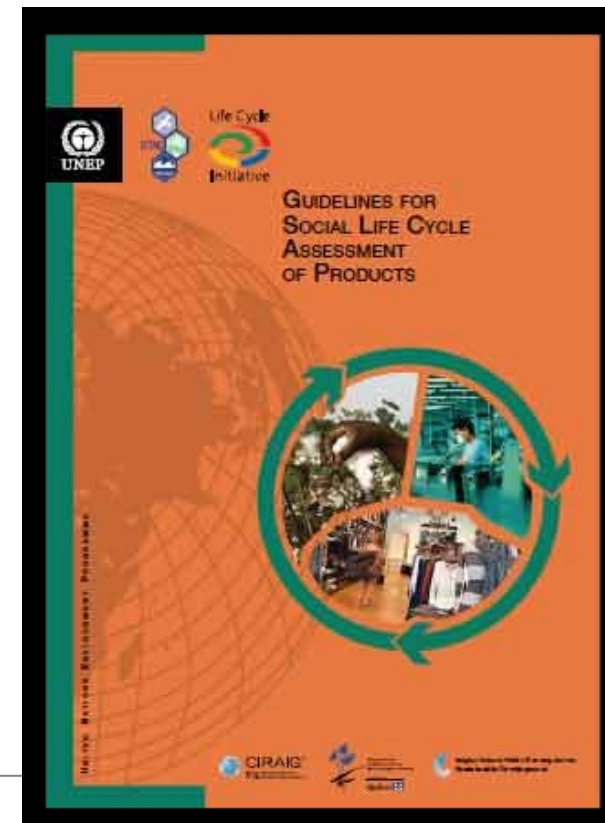
Social LivsCykelAnalys
S-LCA

Life-cycle thinking (LCT)

- Considering impacts of a product over its entire life cycle
- Capturing potential shifts of negative impacts throughout the life cycle
- Environmental and social impacts, costs; (E-)LCA, S-LCA, LCC

Social Life Cycle Assessment S-LCA

- Assessment of social impacts of a products life cycle
- Impacts on people and the society
- Generic and site-specific assessment approaches
- Considering production processes AND the organisation itself
- Both positive and negative impacts

Protect and improve Human well-being

Stakeholder categories
- Worker
- Consumer
- Local community
- Society
- Value chain actors

Impact categories
- Human rights
- Working conditions
- Health and safety
- Cultural heritage
- Governance
- Socio-economic repercussions

- Each activity/action is assessed by its impacts in any of the impact categories on the well-being of any of the stakeholder categories
- Example; the impact of production-related extraction of fresh water on the health of the members in the local community

Laptop case study

- Generic life cycle
- Assessment phases
  - Resource extraction (copper, cobalt, aluminum, gold, crude oil)
  - Refining and processing (metals, oil/plastic)
  - Manufacturing and assembly (mother board, battery cells, display, optical drive and battery pack)
  - Marketing and sales
  - Use (customer relations)
  - Recycling and waste (formal and informal)

Data collection(generic study)

- Collection of data per country and sector
- Data sources mostly global organisations like ILO, WHO, the UN, Amnesty, Transparency International
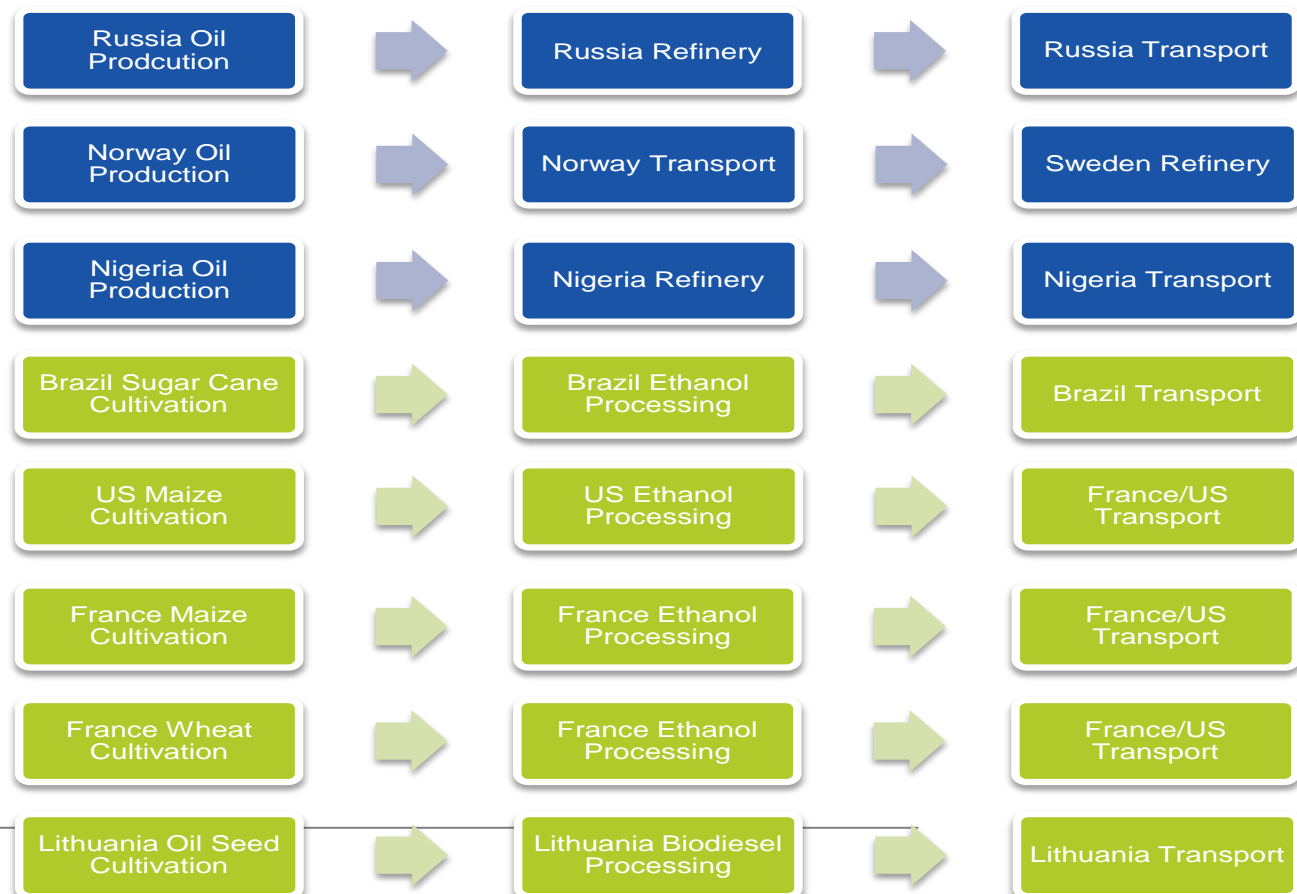
Results, hotspots

Stakeholder	Subcategory	Countries involved with potentially severe impacts
Worker	Social benefits/social security	**China, Russia, Saudi Arabia, Thailand**
	Working hours	**Brazil, Bolivia, Thailand**
	Freedom of association and collective bargaining	**China, Thailand**
Local community	Access to immaterial resources	**China, Bolivia, Russia, Saudi Arabia**
	Safe and healthy living conditions	**China, Saudi Arabia, Thailand**
	Community engagement	**China, Saudi Arabia, Brazil, Bolivia, Thailand**
	Delocalisation and migration	**China, Brazil**
	Cultural heritage	**China**
	Respect for indigenous rights	**Brazil**

Vehicle fuels case study

- A S-LCA screening assessment on a selection of biofuels and fossil fuels
- Simplified product system (three phases) for eight fuels

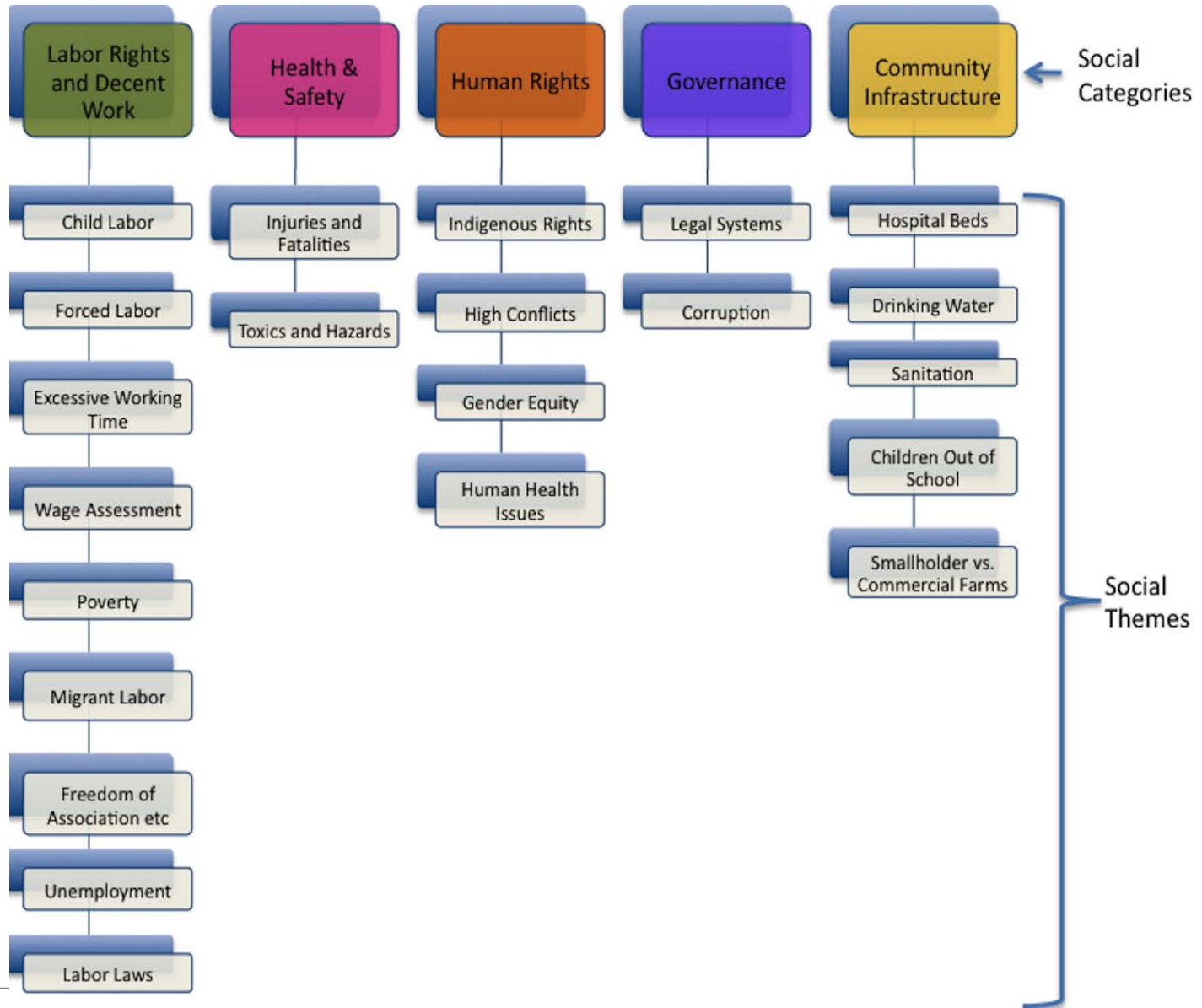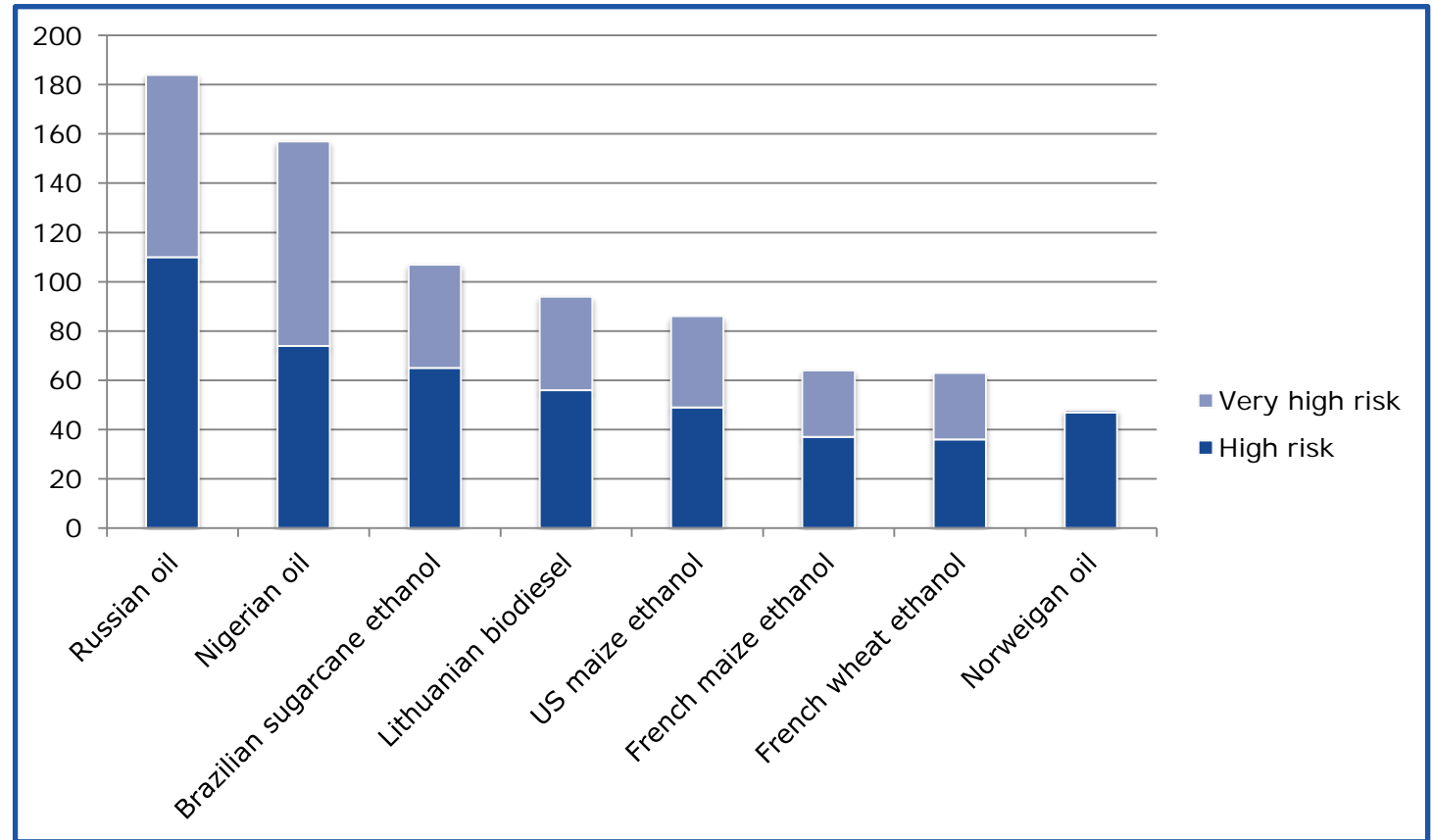| Russia Oil Prodcution | → | Russia Refinery | → | Russia Transport |
Norway Oil Production	→	Norway Transport	→	Sweden Refinery
Nigeria Oil Production	→	Nigeria Refinery	→	Nigeria Transport
Brazil Sugar Cane Cultivation	→	Brazil Ethanol Processing	→	Brazil Transport
US Maize Cultivation	→	US Ethanol Processing	→	France/US Transport
France Maize Cultivation	→	France Ethanol Processing	→	France/US Transport
France Wheat Cultivation	→	France Ethanol Processing	→	France/US Transport
Lithuania Oil Seed Cultivation	→	Lithuania Biodiesel Processing	→	Lithuania Transport

Vehicle fuels case study

- Generic level, i.e. with country and/or sector level data
- Assessed by the Social Hotspot Database (www.socialhotspot.org)
- Assessing level of risk (low, medium, high or very high) of social impact
- Only high and very high risks considered
- Counted the number of risks

Social Hotspot Database

Result - number of risk per product system

To conclude

An S-LCA is used to identify:

- The impact from the product life cycle (raw material extraction ➡ disposal/waste)…
- …on any stakeholder (worker, local community etc)
- …in any type of social impact (health, human rights etc)