

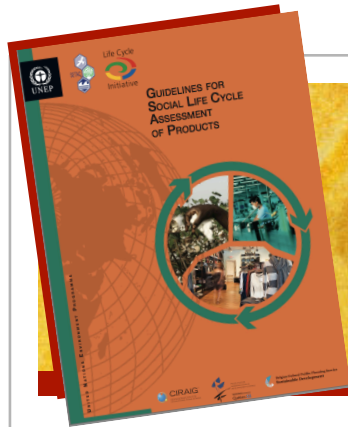


social hotspots database

Working with the Social Hotspot Database

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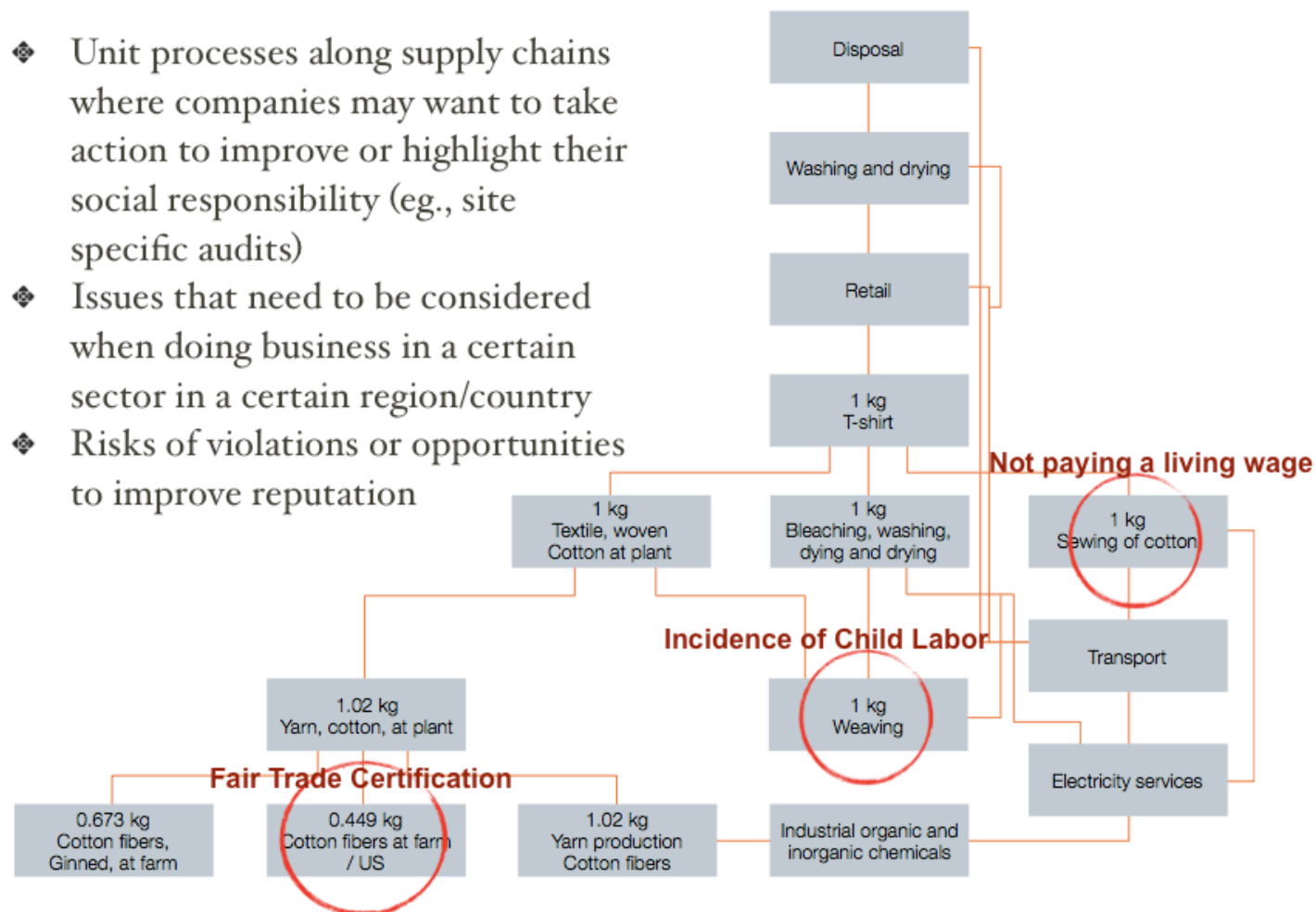


Social LCA

- Social Life Cycle Assessment (S-LCA) is a technique to assess the social and socio-economic impacts over entire supply chains.
- The Guidelines recommend to carry Life Cycle Attribute Assessment to inform hotspots identification and provide an alternative way to present results
- Site-specific field evaluations are then determined based on labor intensity, severity of issues, and level of risk.

What's a HotSpot?

- ❖ Unit processes along supply chains where companies may want to take action to improve or highlight their social responsibility (eg., site specific audits)
- ❖ Issues that need to be considered when doing business in a certain sector in a certain region/country
- ❖ Risks of violations or opportunities to improve reputation



Social Hotspots Database

- First comprehensive data resource for Social Life Cycle Assessment: Eases inventory data collection efforts – reduce time & cost
- It provides the Life Cycle Inventory data used in LCA to conduct hotspots assessment.
- The wealth of information put together (more than 40 000 data points) contributes to advance the knowledge on social issues data availability worldwide.
- The database information create a baseline that can also be used to put the site specific impacts or companies SR programs implemented, in perspective

Social Hotspots Database

- 18 themes and 20 tables (and growing) and over 60 indicators related to Human Rights, Labour Rights and Decent Work, Governance, Access to Community Services
- Provide data for all UNEP Subcategories that can be assessed at the generic level
- For over 113 countries and 57 sectors (data 191, model 113 countries)
- More than a 100 publicly available secondary sources of information used
- Gaining knowledge on important data gaps/ countries missing and sector information

Overall system

Risk
tables

Is their higher share of risk
or opportunity happening at
different country/sector of
my product supply chain?

LCAA

What is the share of worker hours
needed from each country/sector to
deliver the product?

GTAP

When I buy from a sector from which other
countries and sectors am I buying?

Worker Hours Activity Variable

- Where are the people in my supply chain/unit processes ?
 - Worker hours by country-specific sector (CSS)
 - Prioritize the CSS by those with greatest share of worker hours
- What are the specific risks to consider and opportunities available to improve the situation?
 - SHDB tables
- What share of worker hours in supply chain has...?
 - social issues of concern (ie., hotspots)
 - attributes of interest
 - complete data

SHDB Tables Completed

Currently in Database

- Labor Laws/Conventions
- Wage Assessment
- Population living in Poverty
- Child Labor
- Forced Labor
- Excessive Working Time
- Freedom of Association,
- Collective Bargaining, Right to Strike
- Legal System
- Indigenous Rights
- Gender Equity
- High Conflict Zones
- Children Out of School
- Access to Improved Drinking water
- Access to Improved Sanitation
- Access to Hospital Beds

NEW

- Unemployment
- Health Issues
- Smallholder vs. Commercial Farms
- Injuries and Deaths in the Workplace
- Migrant Workers
- Toxics in the Workplace
- Corruption
- Intellectual Property Rights / Traditional Knowledge

SHDB Process

Data driven approach

- Review of data source available
- Does it make sense to assess the theme at sector level?
- Choice of best available data
- Development of characterization methods - distribution

Criteria for using data in SHDB

- Comprehensiveness (# country and sectors for which data is available)
- Legitimacy of the data source
- Reliability of method(s) used to collect data by the source
- Quantitative indicators
- Data capture well the theme investigated

Freedom of Association

Country/Region	International Trade Union Confederation - Annual Reports			International Trade Union Confederation - WTO General Review			US Department of State Human Rights Reports			Euro-Mediterranean Human Rights Network, 2009					Average of Sources			Level of Risk/Opportunity		
	Freedom of Association	Collective Bargaining	Right to Strike	Freedom of Association	Collective Bargaining	Right to Strike	Freedom of Association	Collective Bargaining	Right to Strike	Registration of associations	Dissolution of associations	Interference/harassment	Access to foreign funds	Other Elements	Freedom of Association	Collective Bargaining	Right to Strike	Freedom of Association	Collective Bargaining	Right to Strike
GTAP	1 = rights recognized, 2 = allowed with minor restrictions, 3 = recognized but very limited, 4 = no laws or laws against									1 = low risk, 2 = medium risk, 3 = high risk								<1.5 = low, <2.5 = medium, <3.5 = high, ≥3.5 = very high		
Albania	2	1	2				3	3	2						2.5	2	2	high	medium	medium
Argentina	2	2	2				2	2	2						2	2	2	medium	medium	medium
Armenia				3	3	3	3	2	2						3	2.5	2.5	high	high	high
Australia	3	3	3				1	2	3						2	2.5	3	medium	high	high
Austria							1	1	2						1	1	2	low	low	medium
Azerbaijan	3	3	3				3	4	3						3	3.5	3	high	very high	high
Bangladesh	4		4				3	3	3						3.5	3	3.5	very high	high	very high
Belarus	3		4				4	4	4						3.5	4	4	very high	very high	very high
Belgium	2	1	2				1	1	2						1.5	1	2	medium	low	medium
Bolivia	3	3	4				3	3	2						3	3	3	high	high	high
Botswana	2	2	3				1	2	4						1.5	2	3.5	medium	medium	very high
Brazil	2	3	2				3	2	2						2.5	2.5	2	high	high	medium
Bulgaria	2	3	3				2	2	1						2	2.5	2	medium	high	medium
Cambodia	3	3	3				2	3	2						2.5	3	2.5	high	high	high
Canada	1	2	3				1	1	1						1	1.5	2	low	medium	medium
Chile	2	3	1				2	3	3						2	3	2	medium	high	medium
China	4	3	4				2	4	3						3	3.5	3.5	high	very high	very high

www.socialhotspot.org

Social Hotspots World Map

1. Choose Category:

Labor Rights & Decent Work

2. Choose Theme:

Labor Laws and Conventions

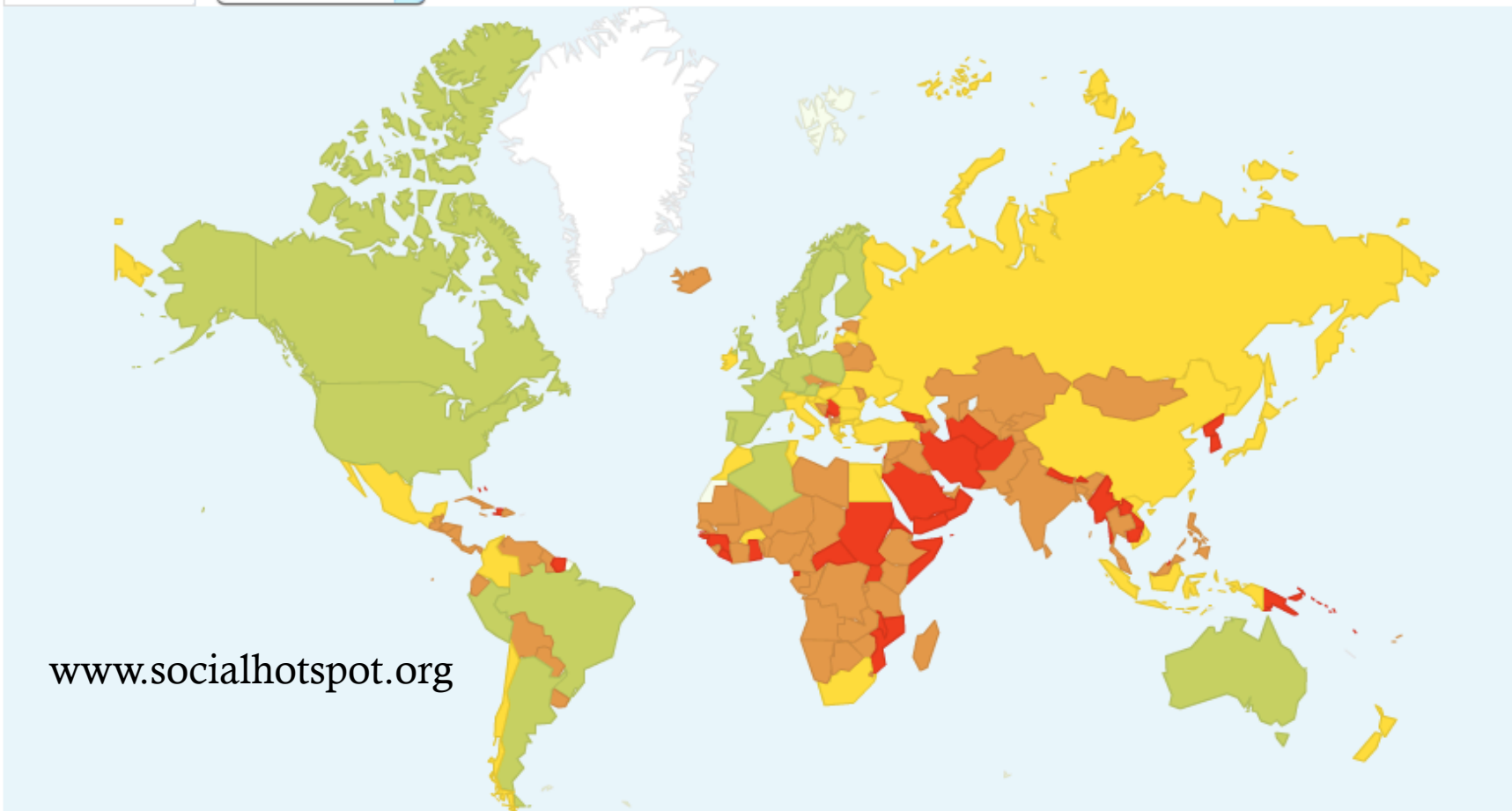
3. Choose Issue:

Potential of Country not passing Labor Laws

Risk Levels

World View

Country Search:

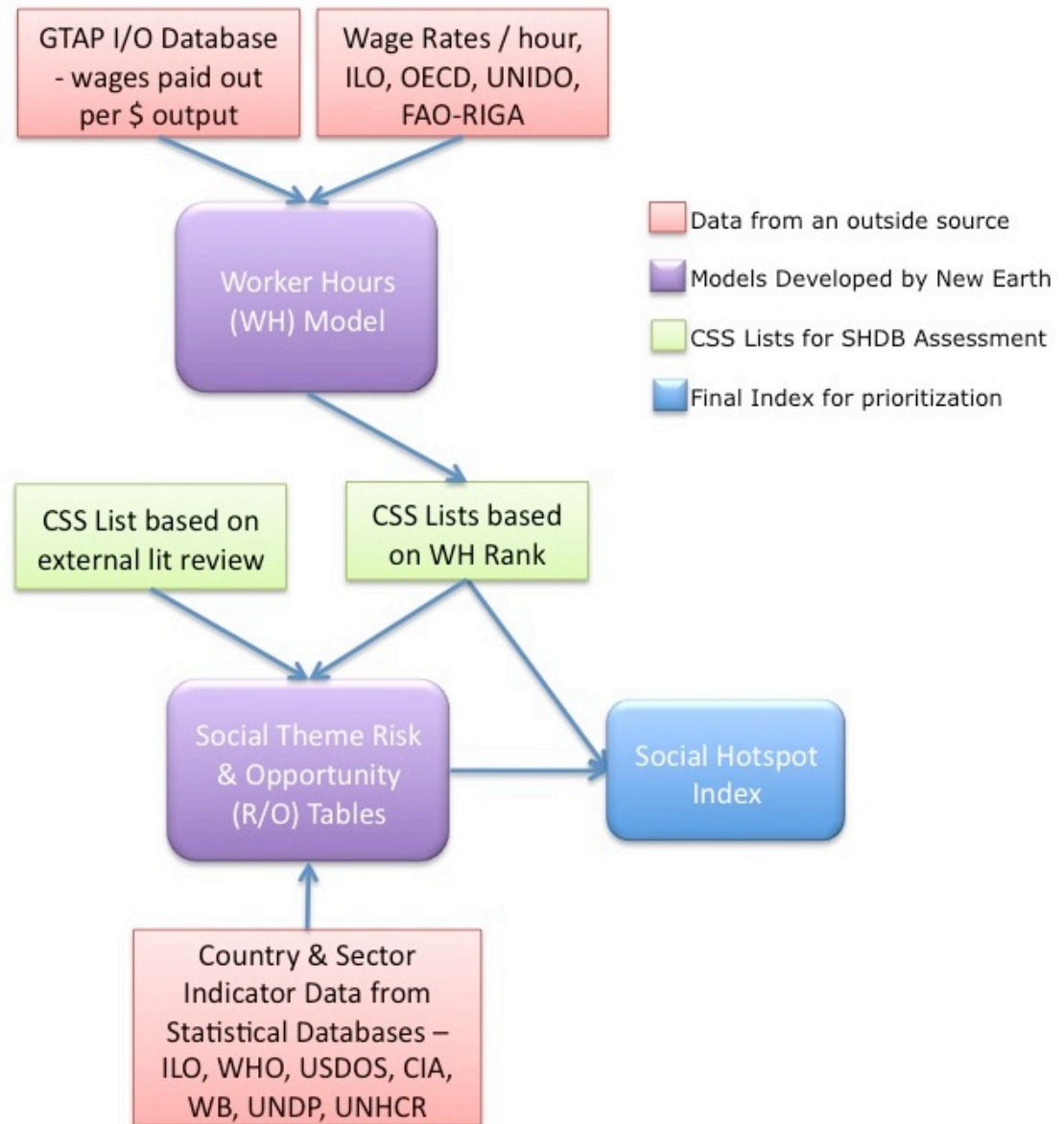


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Social Scoping Assessment methodology

- Highlight social hotspots in product supply chain using Social Hotspot Database (SHDB) and literature review
- Model two lists of country-specific sectors (CSS) in SHDB
 - Literature review of supply chain (Process tree and trade data)
 - Worker hours assessment based on GTAP
- Perform extensive lit review on social issues
- Gather info on relevant media campaigns, initiatives, certifications & labeling, and audit data if available
- Determine countries and sectors most at risk and for what social issues

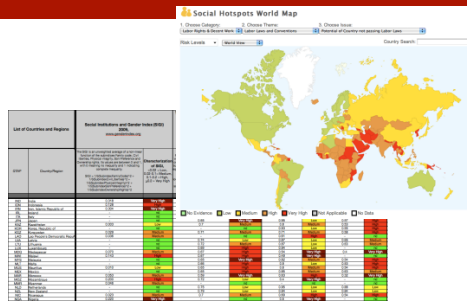
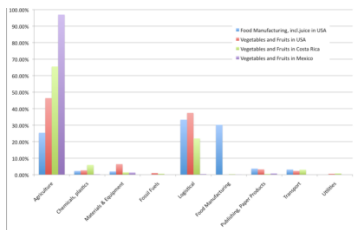
Methods Highlight



Social Scoping Assessments

- Completed 7 pilots in 3 sector groups mandated by The Sustainability Consortium
- Completed 2 other studies for organizations
 - Orange juice, Strawberry Yogurt, Wheat cereal from U.S.
 - Laundry Detergent, Shampoo, Hard Surface Cleaner from U.S.
 - Laptop from China
 - Computer from China
 - Fresh juice mix

Detailed Process



Country or CTAP Region	Sector Description	Hotspot Index Based on Total Worker Hours and Proximity to Hotspots	Proximity to Supply Chain by Region
South Central Africa	Petroleum, Coal Products	107.6	4
South Central Africa	Oil Extraction	106.2	4
Nigeria	Natural Gas	92.8	4
Nigeria	Oil Refineries	92.8	4
China	Chemical, Rubber, Plastic Products	92.8	2
Nigeria	Petroleum, Coal Products	91	4
Yemen	Oil Refineries	82.8	4
United States of America	Vegetables, Fruits, Nuts	78.2	4
India	Chemical, Rubber, Plastic Products	78.2	3
Mexico	Vegetables, Fruits, Nuts	74.6	4
Yemen	Petroleum, Coal Products	74.6	4
Indonesia	Chemical, Rubber, Plastic Products	74.6	2
Peru	Petroleum, Coal Products	71	4
Peru	Coal	71	4
Indonesia	Natural Gas	72.8	4
Costa Rica	Vegetables, Fruits, Nuts	72.1	3
United States of America	Food Products non	64.6	4
Colombia	Coal	64.4	4
Indonesia	Petroleum, Coal Products	66	4
China	Paper Products, Publishing	66	2
Peru	Natural Gas	64.9	4

LABOR INTENSITY:
Worker Hours (WH) Model



SEVERITY of ISSUES + LEVEL of RISK:
Hotspot Database*



Hotspot Index + Influence

ECONOMIC INPUT:
GTAP Database wages indexed to output

INDUSTRY STATISTICS:
Wage Rates – from ILO, etc

Country /Sector Indicators:
Working conditions and community impact databases

EXTERNAL Literature review

- Data from outside source
- Model Developed by New Earth
- Database developed by New Earth
- Final Index

* Database content: 18 social themes including over 60 indicators by country, and sector utilizing >100 publicly available references. Over 150 country specific sector were examined.

Hotspot index for top css/ OJ

Sector	Country / region - rank	WH / US\$1M OJ	% of Total WH	Cumulative %	Hot-spot index
Vegetables & fruits	U.S. - 1	1.99E+00	33.70%	33.70%	18.46
Business Services	U.S. - 2	9.31E+00	15.79%	49.49%	15.38
Retail Services	U.S. - 3	3.55E+00	6.01%	55.50%	17.91
Financial Services	U.S. - 4	1591.12	2.70%	58.20%	15.38
Paper Products	U.S. - 5	1470.77	2.49%	60.69%	15.38
Construction	U.S. - 6	1366.7	2.32%	63.01%	17.91
Lumber products	U.S. - 8	911.22	1.55%	66.62%	15.38
Truck Transport	U.S. - 9	751.39	1.27%	67.90%	18.46
Chemical Industry	U.S. - 10	698.8	1.18%	69.08%	15.38
Vegetables & fruits	Brazil - 367	6.628	0.01%	95.97%	27.54

Electricity generation and water treatment and distribution in the U.S. is also ranked high, within the top 100.

Contribution of Worker hours/ Fruit juice mix

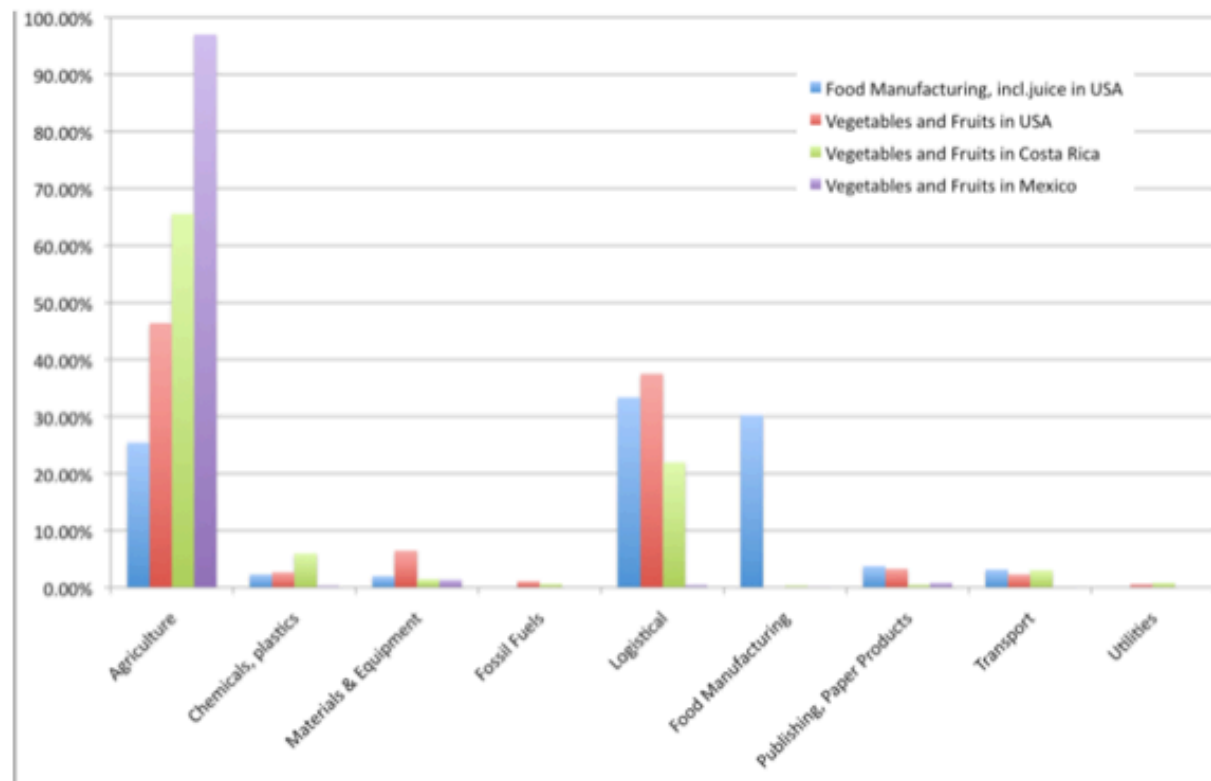


Figure 2: % of supply chains with most worker hours for 4 primary CSS

Most important CSS & hotspots/ OJ

			Country-level								Sector-level	
			Wages	Child labor	Forced Labor	Labor Laws	Legal System	Gender	Working Time	School	Wages	Indigenous
Sector	Country	Hotspot Index	<i>Risk of Population living on <\$2/day</i>	<i>Risk of Child Labor</i>	<i>Risk of Forced Labor</i>	<i>Risk of not having Collective Bargaining Rights</i>	<i>Overall weakness of Legal System</i>	<i>Overall weakness of Gender Equity</i>	<i>Excessive Working Time - >48 hours/week</i>	<i>Risk of Children not attending School – total</i>	<i>Potential of Average wage being < Minimum Wage by Sector</i>	<i>Potential for Indigenous Rights Infringements by Sector</i>
Vegetable & Fruits	USA	22.6804	n.d.	low	medium	very high	medium	low	low	high	medium	n.e.
	India	63	very high	high	high	high	medium	very high	high	high	very high	very high
	China	50.5155	high	high	high	very high	high	high	medium	low	low	very high
	Mexico	32.0388	medium	medium	high	high	high	high	medium	medium	low	very high
	Brazil	24.2718	high	medium	high	high	high	medium	low	high	high	n.e.
Chemical Products	China	51.0638	high	high	high	very high	high	high	medium	low	low	n.e.
	Venezuela	39	high	medium	low	medium	very high	medium	low	high	very high	n.e.
	Russia	34	low	medium	high	very high	very high	medium	low	high	low	n.e.
Machinery Manufacture	China	51.0638	high	high	high	very high	high	high	high	low	low	n.e.
Oil	Angola	78.6408	very high	very high	medium	high	very high	very high	high	very high	very high	very high
	Venezuela	42.4528	high	medium	low	medium	very high	medium	low	high	very high	very high
Coal	China	54.6392	high	high	high	very high	high	high	high	low	medium	very high
Gas	Turkmenistan	45.6311	very high	medium	high	high	very high	high	medium	medium	very high	very high
Electricity	USA	23	n.d.	low	medium	very high	medium	low	medium	high	low	very high
Water	USA	23	n.d.	low	medium	very high	medium	low	medium	high	low	very high

Understand better social issues of sector by country

Figure A: Level of Social Issues for Hotspots in the Fruit and Vegetable Sector
(0=no data or no evidence, 1=low, 2=medium, 3=high, 4=very high risk or opportunity)



Key Findings

- Worker hours pattern vary greatly (concentration vs distribution) by sector
- Retail, infrastructure and services are often contributing a large share of WH
- Dichotomy of risk vs worker hours share (example: fuel extraction)
- Companies needs actionable items – Where to start?
- Literature review confirmed SHDB assessment
- Need to complement GTAP assessment with trade data on product inputs

Future Work

- Continue to build database (product category level) and improve website (living wage)
- Encourage/ conduct site specific assessments with results
- Refine methodology for Hotspot assessment/ Selection of hotspots
- Investigate methods of uncertainty analysis of database

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