Politics commitment to the topic of supply chain management and the support it provides

Susanna Fieber
Federal Office for the Environment FOEN
WRF 2019, 24th October 2019
The exponential increase of socio-economic factors ...

... leads to an exponential strain of the earth system

Source: Steffen et al. 2015
Different methods, same conclusion: massive (over)use of resources

Sources: Global Footprint Network/according to Steffen et al. 2015
«The Federal Council expects companies to assume their social responsibility, including respect for human rights, environmental protection and the prevention of corruption, in Switzerland and wherever they operate.»
CR Frameworks and support for due diligence and risk reduction

Switzerland belongs to a number of international organisations, such as the UN, the Council of Europe and the OECD with an important role in terms of CR

- Human rights convention «ILO Declaration on Fundamental Principles and Rights at Work»
- OECD Guidelines for Multinational Enterprises
- UN Guiding Principles for Business and Human Rights
Green Public Procurement: Catalysing sustainable production and innovation

Federal Law on Public Procurement 2021

Purpose = Sustainable use of public funds. The contract is awarded to the most advantageous bid (quality, sustainability and innovation receive more weight in addition to price)

- Changing paradigm: from price competition to quality competition

- Public procurers are
  - applying sustainability criteria,
  - requesting proof and
  - carrying out checks

- Companies with sustainable supply chain management (availability of requested data/ evidence) have better access to public contracts

Confederation as «Role Model*» with 41 Billion CHF purchasing power (6 % of GDP)

*Sustainable Development Strategy 2016-2019
Enabling industry approaches / multistakeholder initiatives

- Industry approaches and multi-stakeholder initiatives can be sector-specific or cross-industry
- Associations and initiatives can take up specific topics, develop guidelines and other support measures.
- They serve to disseminate good practice and practical recommendations for action for companies.

Examples
- UN Global Compact (cross-sector)
- Swiss Better Gold Initiative (Commodities)
- SCORE and Better Work (apparel industry)
- Round Table on Human Rights in Tourism (Tourism)
Initial situation and a conclusion of the «Green Economy Impulse Group» 2016

www.gruenewirtschaft.admin.ch
Initial situation and a conclusion of the «Green Economy Impulse Group» 2016

We know that environmental impacts/risks often lie in global supply chains. So what can we all do about it?

Yes, but many companies don’t know exactly where the hotspots are and there is uncertainty regarding greatest reduction potentials and measures with greatest effect.

So can’t anyone tell companies where the hotspots are in the supply chains so that they can address them.

And data about hotspots in supply chains is not easily available.

Ok guys, we will commission a study and provide companies with data on hotspots in their supply chains.
Data-Provision to identify environmental Hotspots in supply chains of Swiss firms

Basis: Study «Environmental Hotspots in the supply chain of Swiss companies»

Method: Input-output model extended with environmental data (EE-IOT)
Thank you very much for your attention!
Environmental Atlas of Swiss Supply Chains:
Raising awareness of environmental hotspots in Swiss industries’ supply chains

Carsten Nathani, Rütter Soceco
Martina Alig, Treeze Ltd.

WRF, Geneva, 24.10.2019
1. Goals of the Environmental Atlas
2. Structure and content
3. Methodological approach
4. Example: results for the industry «machinery»
   - Environmental hotspots in supply chains
   - Planetary boundaries and reduction requirements
   - Measures
5. Summary of results
1. Goals of the Environmental Atlas
2. Structure and content
3. Methodological approach
Goals of the Environmental Atlas

- Increase awareness of Swiss companies for the environmental relevance of their supply chains
- Show options to reduce environmental impacts in the supply chain
  - Identification of relevant environmental issues and important activity fields
- Support setup of a sustainable supply chain management and for setting of environmental (management) goals
Introduction
- Methodological approach and database
- Environmental indicators addressed
- Concept of planetary boundaries and reduction requirements

Analysis of the environmental impacts in the supply chains of eight selected industries:
- Identification of environmental hotspots
- Estimation of reduction requirements
- Proposals for reduction measures and possible measurement indicators; collection of existing standards and initiatives

Steps towards a sustainable supply chain management

Checklist for the setup of a sustainable supply chain management
Eight selected industries

- Meat production and processing
- Chemical industry
- Machinery
- Construction and real estate industry
- Health services
- Food trade
- Clothing trade
- Trade with electrical and electronic products
Included environmental footprints

- Greenhouse gas footprint
- Biodiversity footprint
- Air pollution footprint
- Water footprint
- Eutrophication footprint
- Total environmental footprint
Global environmentally extended input-output model for the calculation of environmental impacts «cradle to company gate»
- Database: Swiss EE-IOT 2008 / Global EE-IOT Exiobase 2008
- represents global supply chains at the industry and sector level (ca. 100 industries in ca. 50 countries and world regions),
- captures environmental impacts of all industries in all countries (ca. 100 environmental indicators)
- calculates environmental footprints of Swiss industries

Environmental impacts of the use phase: studies and LCA data included for the
- real estate and construction industry
- trade with electric and electronic products
Supply chains of each industry are traced across industry and country borders.

- Environmental impacts calculated.
- Aggregated to midpoint indicators.
4. Example: Results for industry «machinery»
Overview of value added and environmental impacts

- **Gross value added**: 40'084 Mio. CHF
  - Greenhouse gas footprint: 10'031 kt CO2 eq
  - Biodiversity loss footprint: 5'602 nano PDF*a
  - Water footprint: 2'348 Mm3
  - Air pollution footprint: 23'090 t PM10 eq
  - Eutrophication footprint: 4'859 t N eq

- **Share of supply chain stage in total impact**
  - Raw material extraction: 67%
  - Remaining upstream chains: 3%
  - Direct suppliers: 11%
  - Industry itself: 29%
Air pollution footprint by emitting industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Share in total air pollution footprint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic metals</td>
<td>40%</td>
</tr>
<tr>
<td>Electricity from fossil fuels</td>
<td>30%</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>20%</td>
</tr>
<tr>
<td>Water transport</td>
<td>10%</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>5%</td>
</tr>
<tr>
<td>Oth. non-metallic minerals</td>
<td>3%</td>
</tr>
<tr>
<td>Cattle and milk</td>
<td>2%</td>
</tr>
<tr>
<td>Chemicals</td>
<td>2%</td>
</tr>
<tr>
<td>Public heat</td>
<td>1%</td>
</tr>
<tr>
<td>Machinery &amp; equipment</td>
<td>0%</td>
</tr>
<tr>
<td>All other industries</td>
<td>0%</td>
</tr>
</tbody>
</table>

TOTAL: 23'090 t PM10 eq
Air pollution footprint by emitting country

Share in total air pollution footprint

TOTAL: 23'090 t PM10 eq

- China: 24%
- Germany: 10%
- Russia: 20%
- South Africa: 30%
- Brasil: Rest of Europe: 10%
- USA: Rest of Asia & Pacific: 10%
- India: Rest of America: 10%
- Italy: Rest of Africa & mid. East: 10%

Legend:
- Green: Raw material extraction
- Orange: Remaining upstream chains
- Red: Direct suppliers
- Blue: Industry itself

rütter sococo
Total environmental footprint by direct suppliers to Swiss machinery
Relative importance of Swiss machinery and reduction requirements

- Gross production value
- Greenhouse gas footprint
- Biodiversity loss footprint
- Air pollution footprint
- Eutrophication footprint

Industry's target value vs. Industry's relative footprint

ppm
<table>
<thead>
<tr>
<th>Caused by ...</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Greenhouse gas and air pollution footprints</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Indirect suppliers            | • Increase material efficiency (ecodesign)  
                                  • Use of recycled metal  
                                  • Increase of renewable electricity generation at key suppliers  |
| • Basic metal production      |                                                                                                                                          |
| • Electricity generation      |                                                                                                                                          |
| from fossil fuels             |                                                                                                                                          |
| Resource extraction           |                                                                                                                                          |
| • Mining of mineral resources |                                                                                                                                          |
| and fossil fuels              |                                                                                                                                          |
| **Air pollution footprint**   |                                                                                                                                          |
| Indirect suppliers            |                                                                                                                                          |
| • Ocean sea transport         | • Reduction of transport distances (through regional suppliers)  
                                  • Choice of transport companies with eco-efficient container ships  |
|
Initiatives, standards and tools for support

Increase of energy and material efficiency

■ Reffnet: www.reffnet.ch

■ Planning tools for production machinery: www.swissmem.ch/de/industrie-politik/energie-und-umwelt/energieeffizienz.html

■ Efficient pumps [ProEPA]: www.energieschweiz.ch/page/de-ch/effiziente-pumpen

Sustainability in the machinery industry

■ Blue competence sustainability initiative: www.bluecompetence.net/home

Metal production


■ Standards of the Aluminium Stewardship Initiative: aluminium-stewardship.org

rüttersoceco
For most industries the environmental impacts in the supply chains are significantly larger than the environmental impacts on site => Potential for supply chain management

Early phases of the supply chain are often decisive (resource extraction, indirect suppliers)

The use phase may also be relevant (=> Product design)

The largest reduction requirements occur for the greenhouse gas and the biodiversity footprints

The relevance of the various environmental indicators depend on the industry

General measure: Improvement of energy efficiency / substitution of renewable for fossil energy sources
Thank you for your attention!

Download the Swiss environmental atlas at: https://www.bafu.admin.ch/bafu/en/home/topics/economy-consumption/info-specialists/resource-consumption.html#-2099368005

Contact

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martina.alig@treeze.ch
Benefits of the Environmental Atlas

Identification of **material environmental impacts** *(hotspots)* and **risks** along the supply chain

Priority fields of action and measures for:

- Environmental and **supply chain management**
- Credible **sustainability reporting** *(#materiality)*
- Setting **environmental goals**

- Proposals for **effective measures**, 
- Examples of **metrics** and references to **existing initiatives**, **standards** and **assistance**
Contact and Links

Contact:
Susanna Fieber, FOEN: susanna.fieber@bafu.admin.ch

Links:
• Hotspot-Study: https://www.bafu.admin.ch/bafu/de/home/themen/wirtschaft-konsum/publikationen-studien/studien.html

• Environmental Atlas of Swiss supply chains:


• Go for Impact: https://www.go-for-impact.ch/news
Questions for Working Groups

**Where** is your own organization most challenged or concerned by supply chain questions (procurement, suppliers of services, goods etc.)? Do you have a policy to handle this?

**Where** do you see the responsibilities of the private sector to improve its supply chains to become sustainable? Do you see potential for crosscutting collaboration between the different sectors? Which ones?

**How** can the presented environmental atlas of Swiss supply chains and the business example be used in your context to improve supply chain sustainability in your organization? What do you expect the private sector to improve and what can you contribute to this?
Human Rights due Diligence and supply chain management in practice: Approaches and working groups in Switzerland
“I propose that you, the business leaders... and we, the United Nations, initiate a global compact of shared values and principles, which will give a human face to the global market.”


“Since there can be no poverty eradication without generation of wealth, we should further promote the UN Global Compact, highlighting the benefits of corporate responsibility.”

António Guterres, UN Secretary-General Secretary-General Election Vision Statement, 2016

“I have seen first-hand the power of the UN Global Compact’s Ten Principles on human rights, labour, environment and anti-corruption. They are helping thousands of companies contribute to sustainability.”
THE TEN PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT

HUMAN RIGHTS
1. Businesses should support and respect the protection of internationally proclaimed human rights; and
2. make sure that they are not complicit in human rights abuses.

LABOUR
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
4. the elimination of all forms of forced and compulsory labour
5. the effective abolition of child labour; and
6. the elimination of discrimination in respect of employment and occupation.

ENVIRONMENT
7. Businesses should support a precautionary approach to environmental challenges;
8. undertake initiatives to promote greater environmental responsibility; and
9. encourage the development and diffusion of environmentally friendly technologies.

ANTI-CORRUPTION
10. Businesses should work against corruption in all its forms, including extortion and bribery.
Sustainable Production
Sustainable Consumption
SWITZERLAND
Gap Frame Score: Planet 6.2; Average of 4 dimensions: 7.4

GOVERNANCE (20-24) 8.2

ECONOMY (15-19) 7.7

SOCIETY (9-14) 7.6

PLANET (1-8) 6.2
How to support Swiss companies?

NAPs

CSR

B&HR
FRAMEWORKS for the Contribution of the «Private Sector» to Sustainable Development

SDG

2030 AGENDA

RESPONSIBILITY

OPPORTUNITY

OECD GL for multinational enterprises

UN GP for business & human rights

UN Global Compact 10 Principles

SUSTAINABILITY
A strong commitment to the Ten Principles, and increasing convergence between human rights, labour, environment and anti-corruption.

Do you have policies or practices in place related to:

- Human Rights
- Labour
- Environment
- Anti-corruption

WIDER ACTION: PERCENTAGE OF LARGE COMPANIES (250 EMPLOYEES OR MORE) WITH POLICIES AND PRACTICES THAT APPLY TO SUPPLIERS
Practical Approaches: Supply chain Working Group

Global Compact Network Switzerland

Home > Activities > GCNS Events Calendar

GCNS & öbu: 3rd Meeting of the Working Group on Sustainable Supply Chains

GCNS & ÖBU: 3RD MEETING OF THE WORKING GROUP ON SUSTAINABLE SUPPLY CHAINS

[Pictures from the previous meeting.]

Please note that this Working Group is again open for öbu and/or UN Global Compact members only. If you are not a member but you are interested in joining the Working Group, please get in touch with Global Compact Network Switzerland or öbu.
SDG ACTION MANAGER

Take action.
Track progress.
Transform the world.

Developed by

SDGActionManager.com
Human Rights Due Diligence Info Portal
Das Human Rights Due Diligence Info Portal wurde in Zusammenarbeit mit twentyfifty Ltd. entwickelt, um Unternehmen noch besser darin zu unterstützen, ihre internen Management-Kapazitäten einzuordnen und weitere Schritte auf dem Weg zur menschenrechtlichen Sorgfalt zu planen. Die Seite steht Ihnen in deutscher und englischer Sprache zur Verfügung.

Kompass Nachhaltigkeit - Nachhaltige Beschaffung in KMU (Deutsch)

CR Kompass

https://www.globalcompact.de/de/angebote/tools.php
Breakthrough Innovation for the SDGs

Pathways to Low-Carbon & Resilient Development

Health is Everyone’s Business

Peace, Justice & Strong Institutions

Water Security through Stewardship

Reporting on the SDGs

Financial Innovation for the SDGs

Decent Work in Global Supply Chains

Sustainable Ocean Business
Act Responsibly

Human Rights
Labour
Environment
Anti-Corruption

Contribute to Progress

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals
MAKING GLOBAL GOALS LOCAL BUSINESS

A New Era for Responsible Business

United Nations Global Compact
WELCOME TO
FIRMENICH
WHAT ABOUT FIRMENICH?

FOUNDED IN 1895 IN GENEVA, SWITZERLAND

MORE THAN A BUSINESS, WE ARE A FAMILY WITH A LEGACY
WHAT WE DO

PERFUMERY
- Fine Fragrance
- Body Care
- Home Care

INGREDIENTS
- Naturals
- Biotech
- Molecules

TASTE
- Beverages
- Sweet Goods
- Savory

SUPERIOR CREATIVITY

BROADEST & FINEST PALETTE

HEALTH & NUTRITION

POWERED BY WORLD-CLASS SCIENCE & INNOVATION
<table>
<thead>
<tr>
<th><strong>FIRMENICH TODAY</strong></th>
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<tbody>
<tr>
<td><strong>3.9</strong> Billion CHF Revenues</td>
</tr>
<tr>
<td><strong>6%</strong> Growth vs Prior</td>
</tr>
<tr>
<td><strong>10</strong> Acquisitions Last 3 years</td>
</tr>
<tr>
<td><strong>#1</strong> Privately Owned Perfume &amp; Taste Company</td>
</tr>
<tr>
<td><strong>#1</strong> Fine Fragrance &amp; F&amp;F Ingredients</td>
</tr>
<tr>
<td><strong>390</strong> Million CHF Invested in R&amp;D</td>
</tr>
<tr>
<td><strong>3,700+</strong> Patents</td>
</tr>
<tr>
<td><strong>8000</strong> Colleagues</td>
</tr>
<tr>
<td><strong>100%</strong> Certified Gender Equality Employer (2018)</td>
</tr>
<tr>
<td><strong>CDP AAA·A</strong> Recognized Environmental Leader</td>
</tr>
</tbody>
</table>
RESPONSIBLE SOURCING: #NATURALSTOGETHER

250 RAW MATERIALS
LOCALLY SOURCED IN 40 COUNTRIES
SUPPLIED BY 100 PRODUCERS
RESPONSIBLE SOURCING: #NATURALSTOGETHER

UNIQUE & ETHICAL INVOLVEMENT AT SOURCE TO SECURE THE MOST INNOVATIVE NATURAL INGREDIENTS FOR OUR CONSUMERS

**FARMING COMMUNITIES**
- Projects with Communities
  - 31 Projects at source
  - 8 Clients
  - 74,000 Beneficiaries

**PRODUCERS AT SOURCE**
- Partnering with Best Producers
  - 18 Partners
    - Breakthrough business
    - Responsible Sourcing
    - Innovation
  - 3 Shareholding Partnerships

**FIRMENICH CREATION**
- Ingredients Innovation
  - 3 Centers of Excellence
    - Grasse, Florida, Oregon
  - 2 Major Partnerships
    - India, Guatemala

**CLIENTS & CONSUMERS**
- Sustainable Naturals Portfolio
  - 250+ Botanical Families sourced in 40+ Countries
  - 500 Naturals References