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Federal Office for the Environment FOEN
Economics and Innovation Division



Importance of regionalized LCI/LCIA in Swiss and international Policy

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Federal Office for the Environment

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Conditions for Regionalized LCI(A) within the federal administration

Overall conditions/goals for a regionalization

- increases reliability of assessments
- is applicable in daily business
- is flexible (goal and scope)

Federal offices will benefit from regionalized LCIs and a regionalized LCIA if the regionalization

- supports the decision making despite the potentially higher uncertainty
- Supports communication
- is transparently documented

The costs-benefits-relationship has always to be taken into account



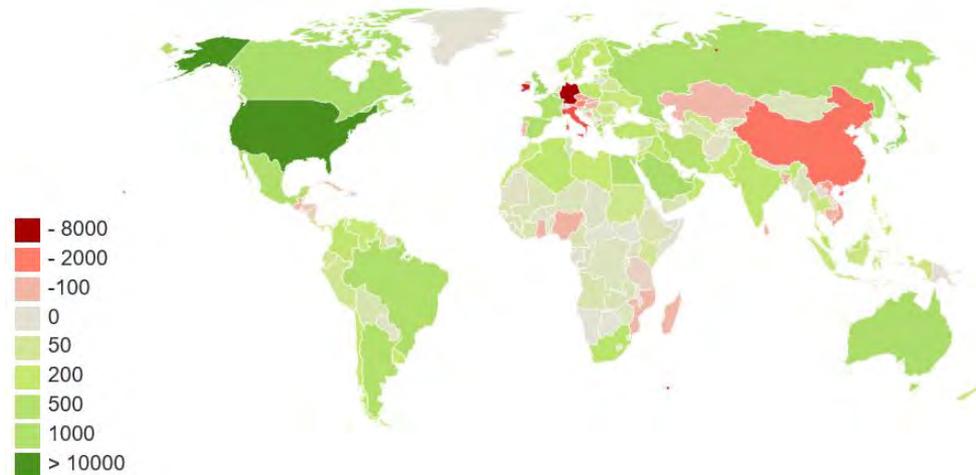
Importance of regionalization for the federal administration

high foreign share of impacts due to strong international orientation of Switzerland's economy

Therefore regionalization is important to calculate

- foreign/domestic share of our national footprint
- SDGs progress
- Supply chain hot-spots
- Relevant goods and commodities
- consequences of e.g. trade agreements

Schweizer Aussenhandelssaldo nach Ländern, 2016, in Millionen CHF





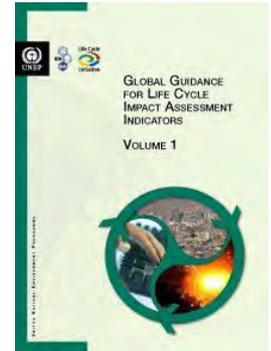
Increasing interest in regionalized impact assessment

Driven by a demand and due to

- increased awareness of potentials
- the expectation of more accurate results
- new or widened topics or goals

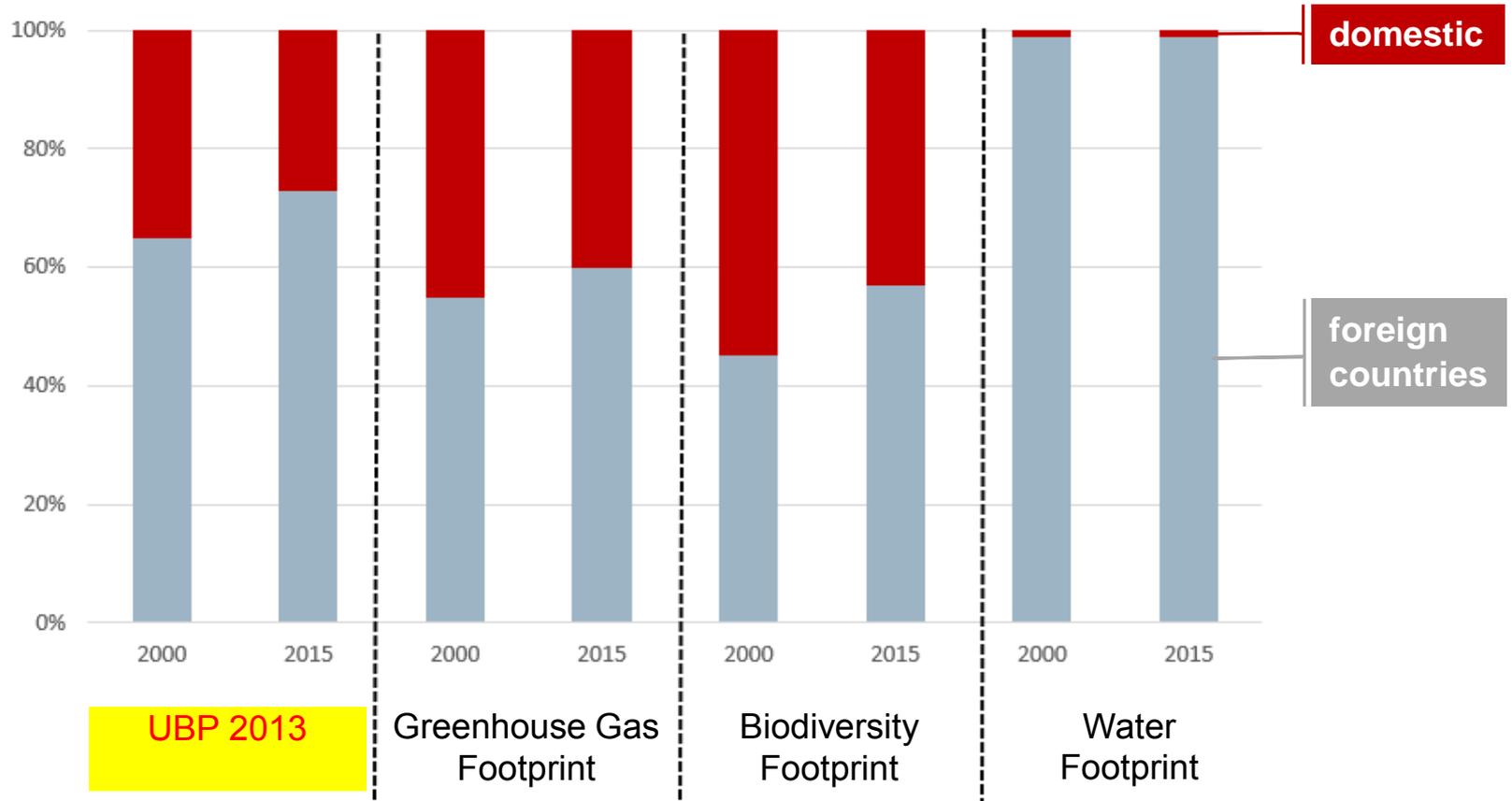
Contributions from and applications by federal offices

- Financial support of GLAM project (Life-Cycle-Initiative)
- regionalized CFs Moek
- regionalized IA used in Studies
 - Swiss national Footprint
 - Supply Chain Hot-Spots





Studies I Swiss Consumption: Increasing burdens abroad

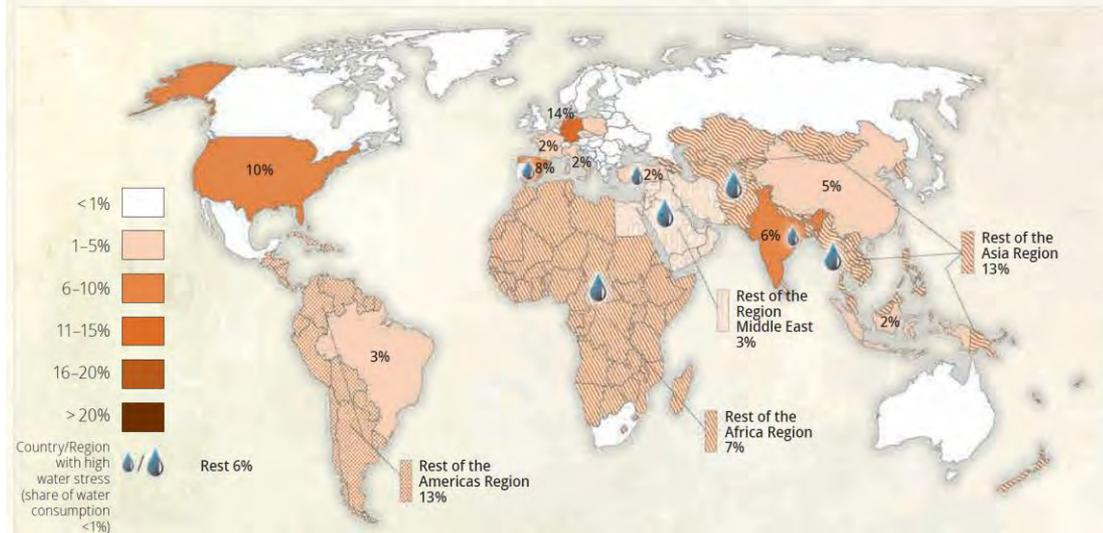




Studies II Supply Chain Hot Spots

Distribution of Water Consumption in the Value Chain
of the German Food Retailing Sector

By country



Source: Atlas on Environmental Impacts - Supply Chains – Environmental Impacts and Hot Spots in the Supply Chain. Berlin/Hamburg: adelphi/Systain.

Study for Swiss Supply chains in preparation, using:

- inter alia LCI from WFLDB
- country specific water and land use flows



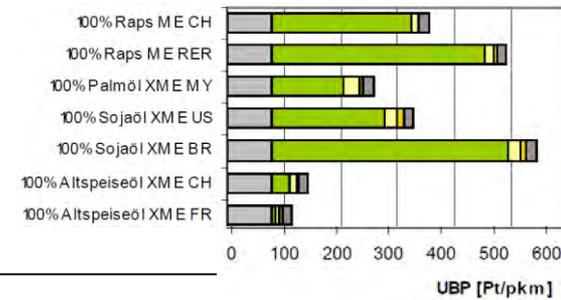
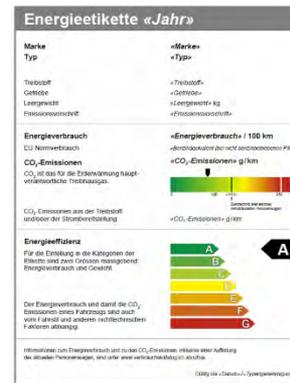
Focus on LCI (regionalization) representing Swiss supply

Federal offices focus was less on regionalized LCIA but more on LCI due to a demand

- in law enforcement
 - tax relief for biofuels (Art. 12b SR 641.61)
 - energy label for cars (SR 730.02)
 - Art. 34b forest act (SR 920.0)
- tools supported by federal offices (KBOOB)
- formulated by stakeholders to close gaps
 - WFLDB / WALDB



**WORLD FOOD
LCA DATABASE**





Regional market datasets for CH: Direct linking of supply-chains in ecoinvent v3

Project in close collaboration with ecoinvent partially financed by FOEN

Goal:

- specific supply-chains in ecoinvent v3 for a number of Sectors (Mobility, Energy, KBOB etc.) for Switzerland and Europe

Current status:

- Project nearly finished and as a result new, regional market datasets have been introduced to better reflect the current reality of global and regional product flows



Some questions to be addressed

- How to ensure consistency between LCIs and CFs, if the spatial resolution of CFs continues to increase?
- What is/are the best way(s) to facilitate a regionalized LCIA?
- How to ensure that regionalized LCIA supports users in their decision making

Some Quotes from DF 39 (2009)

- Regionalization needs to provide significantly better results without increasing uncertainty
- Solutions to address different spatial resolutions needed → software solutions should be kept flexible
- Main problem is not missing method but practicability
- Efforts should be focused on how to make LCIA compliant with inventory data
- Storage capacity/speed is a topic for any software/database. Avoid data explosion



Outlook (perspective of Federal Administration)

Application of regionalized LCIA in Federal Offices will increase. From our point of view the following aspects are important:

- transparent and reliable datasets
- consistency between LCI and CFs
- user friendly
- Favorable cost-benefit ratio
- Expert group establishing recommendations for regionalized LCA



Ways forward

