Understanding species threats in a globalised world: Supply Chain assessments in conservation
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Insights from research

Supporting decision making
Connecting agricultural supply chains to environmental indicators

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Complex supply chains

- Drivers are global
- Supply chains are opaque
- ...solutions can be difficult to devise
- What, where, who?

Goals: Insight, monitoring, reporting, and transparency for complex global supply chains
Summary outline of Trase and IOTA
Impact of Cerrado-sourced soy on endemic biodiversity. Comparison of the relative impact that is directly imported and impact that is attributed to final consumption within those countries (i.e., the latter accounts for both reexports and embedded consumption).

Green et al. 2019, Linking global drivers of agricultural trade to on-the-ground impacts on biodiversity, PNAS https://doi.org/10.1073/pnas.1905618116

Croft et al. 2021, JNCC Report No. 681, Towards indicators of the global environmental impacts of UK consumption: Embedded Deforestation
Complex supply chains

Multiple perspectives, *provided by different approaches and measures*, offer insight into the complexity of the issue.

What are the relative roles of different traders?

How do government and private commitments overlap?

What are the impacts on biodiversity?

And where are impacts most acute?

Which countries are *driving* impacts?
Decision maker contexts

Insights for multiple users and, especially, highlighting the need or value of alignment between stakeholders in a shared landscape or supply chain

• Government and private sector
• Government to government (producer-consumer as well as coalitions of consumers or producers)
• Stakeholders within a landscape (need subnational).
Use cases

- Government
  - e.g. national statistics and monitoring
- Private sector
  - Industry consortiums
- Others...
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United Kingdom summary

Deforestation risk summary:

<table>
<thead>
<tr>
<th>Country</th>
<th>Direct Risk</th>
<th>Average Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>7.39 m²</td>
<td>6.6 m²</td>
</tr>
<tr>
<td>Argentina</td>
<td>0.61 m²</td>
<td>0.58 m²</td>
</tr>
<tr>
<td>Paraguay</td>
<td>16.55 m²</td>
<td>11.7 m²</td>
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</tbody>
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Soy tonnes imported – direct and indirect
Ongoing research

- How to capture ‘response’ to mitigate threats?
- In terms of quality and availability of data, what are the weakest links in biodiversity footprinting?
Incorporating biodiversity considerations into environment and development decisions

Neil Burgess
Target 14. Fully integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies, accounts, and assessments of environmental impacts at all levels of government and across all sectors of the economy, ensuring that all activities and financial flows are aligned with biodiversity values.

Target 15. All businesses (public and private, large, medium and small) assess and report on their dependencies and impacts on biodiversity, from local to global, and progressively reduce negative impacts, by at least half and increase positive impacts, reducing biodiversity-related risks to businesses and moving towards the full sustainability of extraction and production practices, sourcing and supply chains, and use and disposal.
Business focused tools – what's available to understand supply chain impacts

Available Tools to support business action

TradeHub Navigator

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<table>
<thead>
<tr>
<th>Name</th>
<th>Resource</th>
<th>Lead organisation</th>
<th>Typology</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRICTRADE</td>
<td><a href="https://agrictrade.net/trade-data/">Link</a></td>
<td>Agricultural Market and Trade Department of the Permanent Interstate Committee for Drought Control in the Sahel (CILSS)</td>
<td></td>
<td>Lorem ipsum</td>
</tr>
</tbody>
</table>
Species Threat Abatement and Restoration (STAR)

A Global Metric Supporting Nature-Positive Action

STAR is a published global layer based on the IUCN red list

nature.com/articles/s41559-021-01432-0?utm_source=other&utm_medium=other&utm_content=null&utm_campaign=JRCN_1_DD01_CN_NatureRJ_article_paid_XMOL
ENCORE TOOL

Exploring Natural Capital
Opportunities, Risks and Exposure

Select from a Sector or Sub-industry (based on the Global Industry Classification Standard) to explore dependencies and impacts on natural capital.

Sector  Sub-industry

View: Dependencies  Impacts

- Enter a Sector -

EXPLORE
New: Explore hotspots of natural capital depletion using the map

Understand risks arising from the depletion of natural capital, and the dependencies and impacts of business activities, by exploring spatial data.

ENCORE helps you understand how the economy is exposed to natural capital.
**New biodiversity module available!**

Sign up to access new features of ENCORE, including a module that helps financial institutions understand how they can move towards potential portfolio alignment with global biodiversity goals.

**LOGIN/REGISTER**
The Science Based Targets Network (SBTN)

We must transform the way we live and do business in a way that protects our shared natural resources. Building on the momentum of the SBTi, the SBTN is working to enable companies and cities to set targets for climate and nature. Learn more below.

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SBTN planning to use STAR and an Ecosystem Intactness Index in work with companies

https://sciencebasedtargetsnetwork.org/earth-systems/biodiversity/

Biodiversity

Why set science-based targets for species and ecosystems?
Summary

• Large number of available tools
• Nothing fully ‘fit for purpose’ for business supply chains
• But this is changing fast
• Biodiversity metrics in use based around
  • IUCN red list for biodiversity importance and threat (e.g. STAR)
  • Biodiversity intactness measures (MSA, BII, EII, others)
• Are we reaching a consensus?
Work with example companies

- A large Swedish furniture company
- A large Danish clothing company
- Lessons learned
  - Strong willingness to include biodiversity footprint / nature-positive type tools and metrics in their work
  - Critical to be able to understand supply chains down to smallest possible spatial scale
  - Complex supply chains hinders progress
  - Challenges of how embed different tools into corporate work flows
  - Intention remains to address these challenges and be ‘leaders’
Discussion

Arne Geschke & Juha Siikamaki