



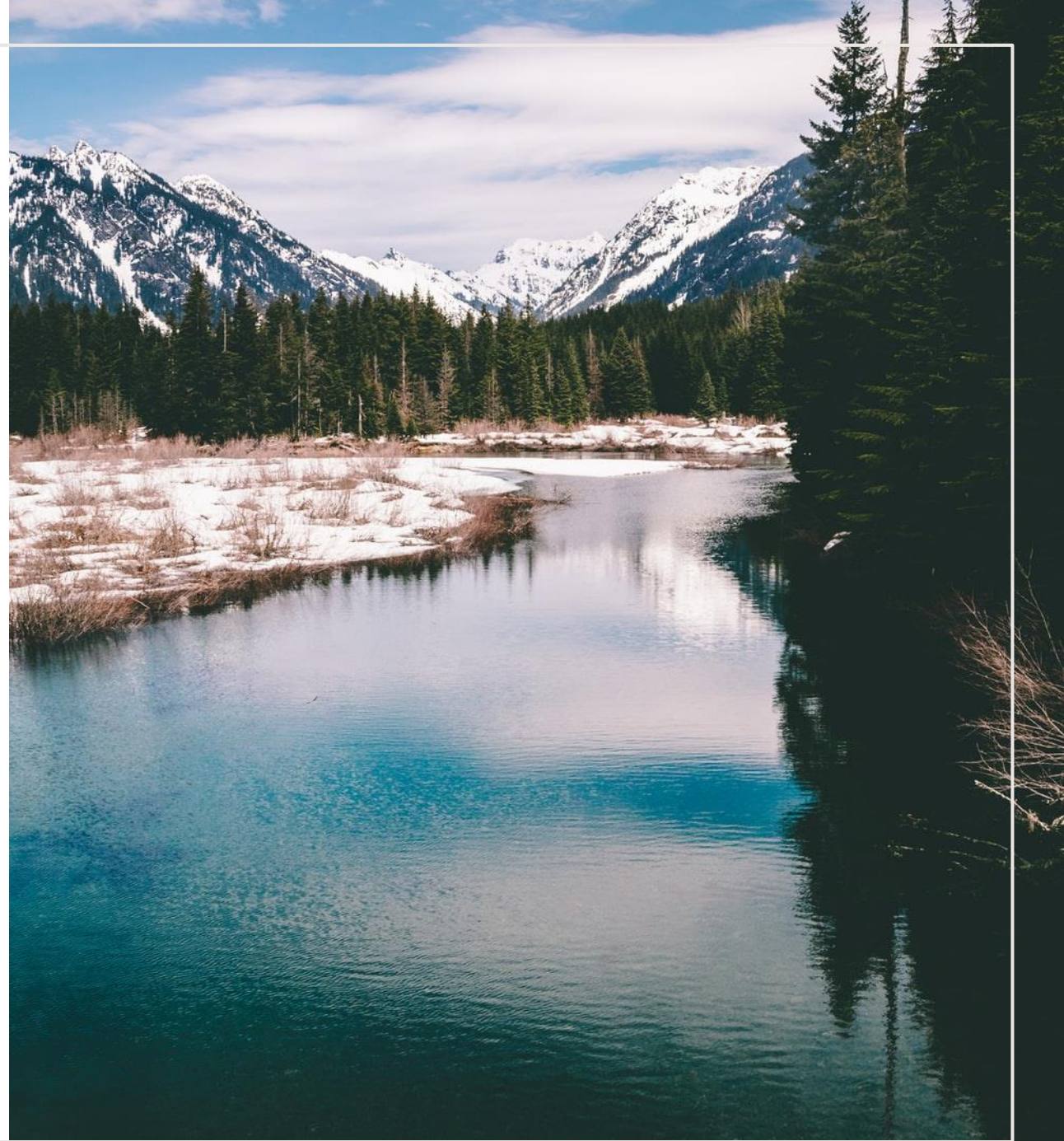
proteus

# Measuring impacts of supply chains

Neil Burgess (UNEP-WCMC) and Chris West (SEI-York)

2021

- Nature of the challenge
- State of the art in measuring supply chain impacts
- Next steps



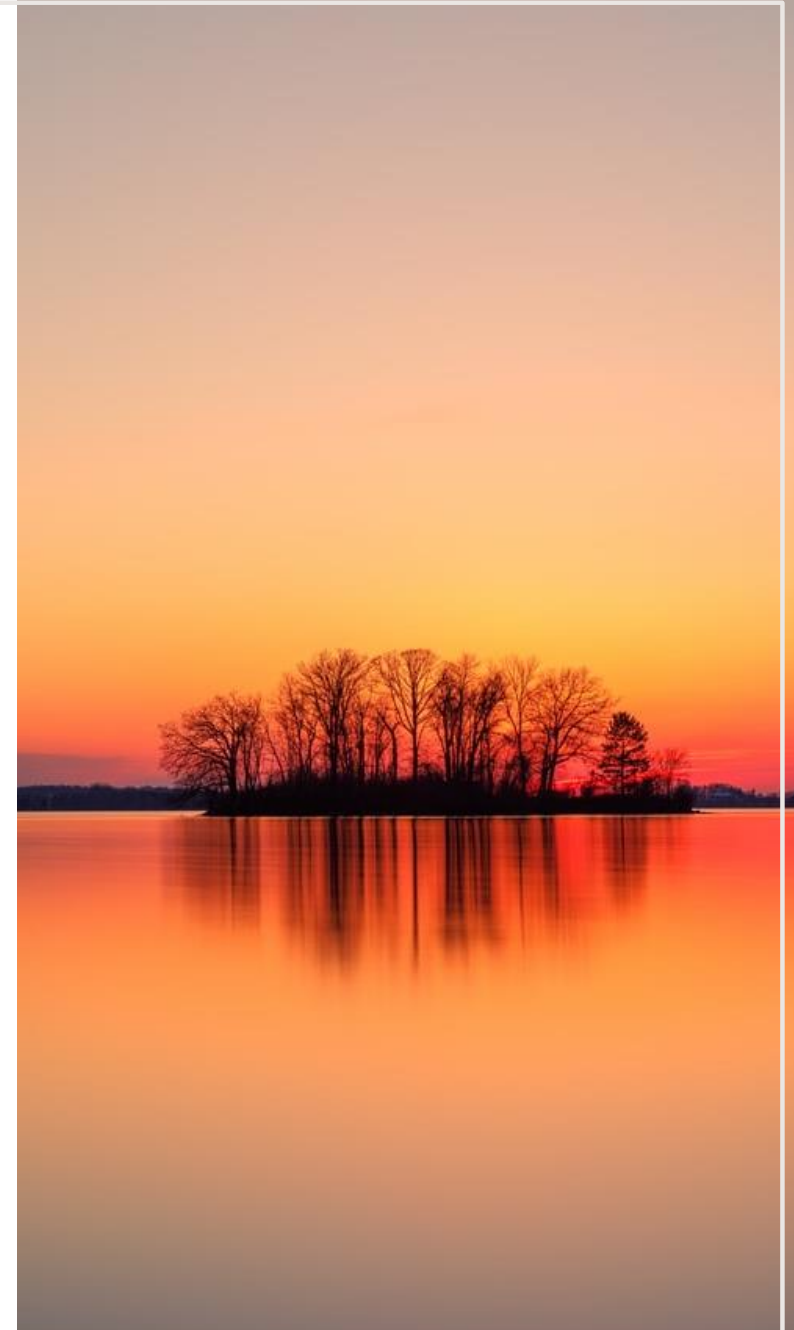


# Nature of the challenge

Neil Burgess, Chief Scientist, UNEP-WCMC

# WHY MEASURE BIODIVERSITY IMPACTS OF SUPPLY CHAINS?

- Zero deforestation supply chains declarations (COP26) and laws (UK, EU)
- CBD post-2020 framework Targets 14, 15
- Biodiversity crisis is as serious as the climate crisis
- Both are linked in terms of challenges and solutions
- Numerous business commitments



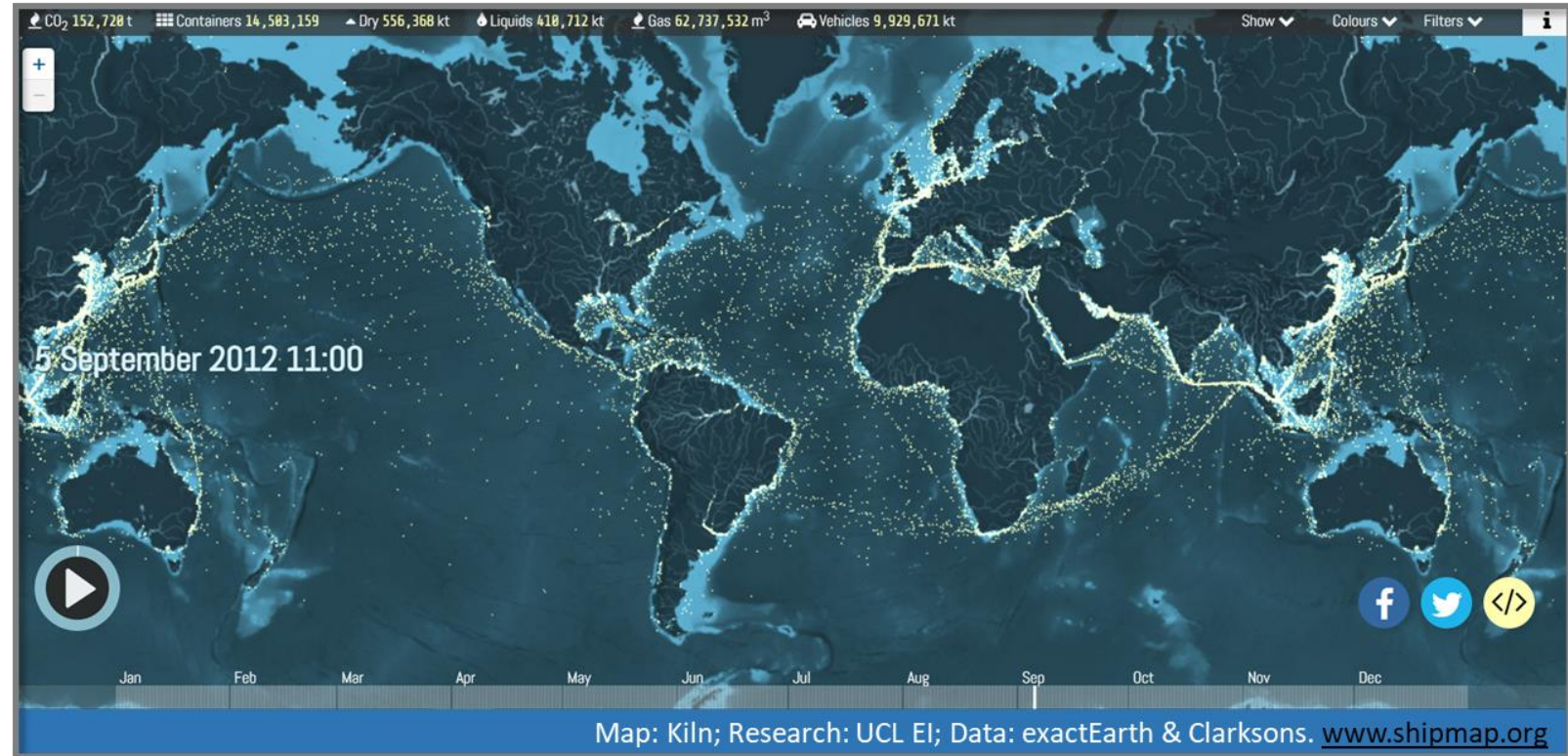


# WHAT ARE THE PROBLEMS

- Its complicated!
- And here is why...

# SUPPLY CHAINS ARE COMPLICATED

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





# State of the art in measuring supply chain impacts

Chris West, SEI York

Exporter

Brazil

Importer

All countries

Commodity

Metals and minerals

Year

2019

Auto zoom to reg

Measure

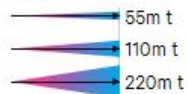
Value

Weight

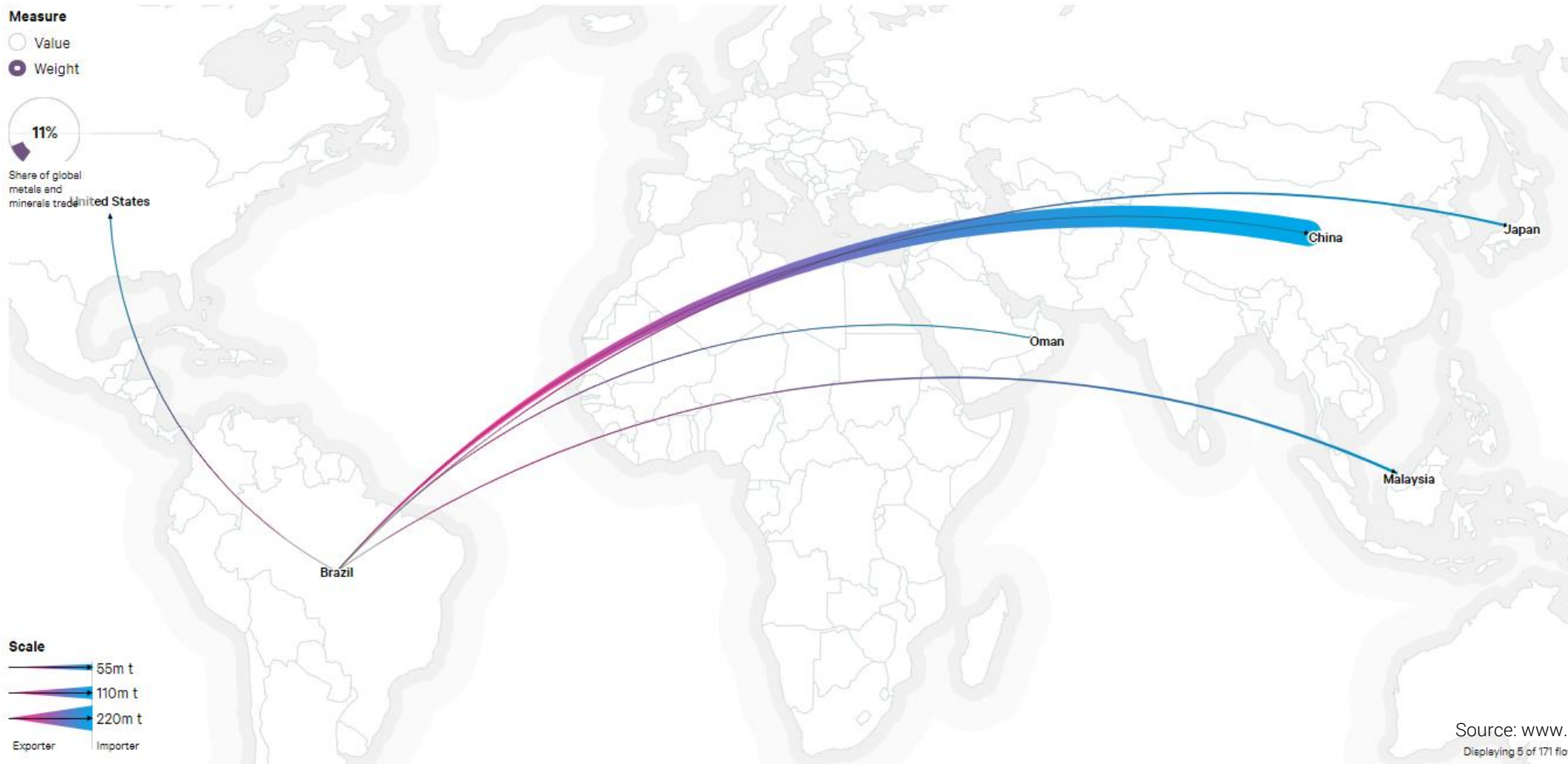


Share of global metals and minerals traded in the United States

Scale



Exporter Importer



Source: [www.resource-trade.com](http://www.resource-trade.com)  
Displaying 5 of 171 flow





COUNTRY - COMMODITY **Brazil - Soy**

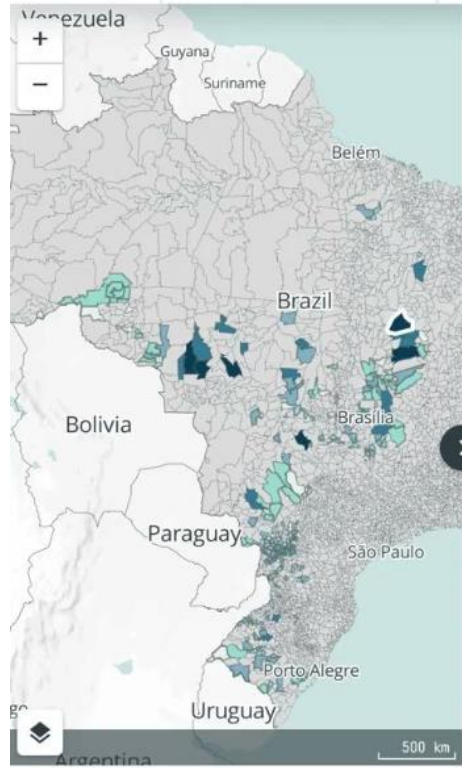
BIOHE **All**

YEAR **2017**

RESIZE BY **Trade volume**

RECOLOUR BY **Selection**

CHANGE VIEW **Summary**



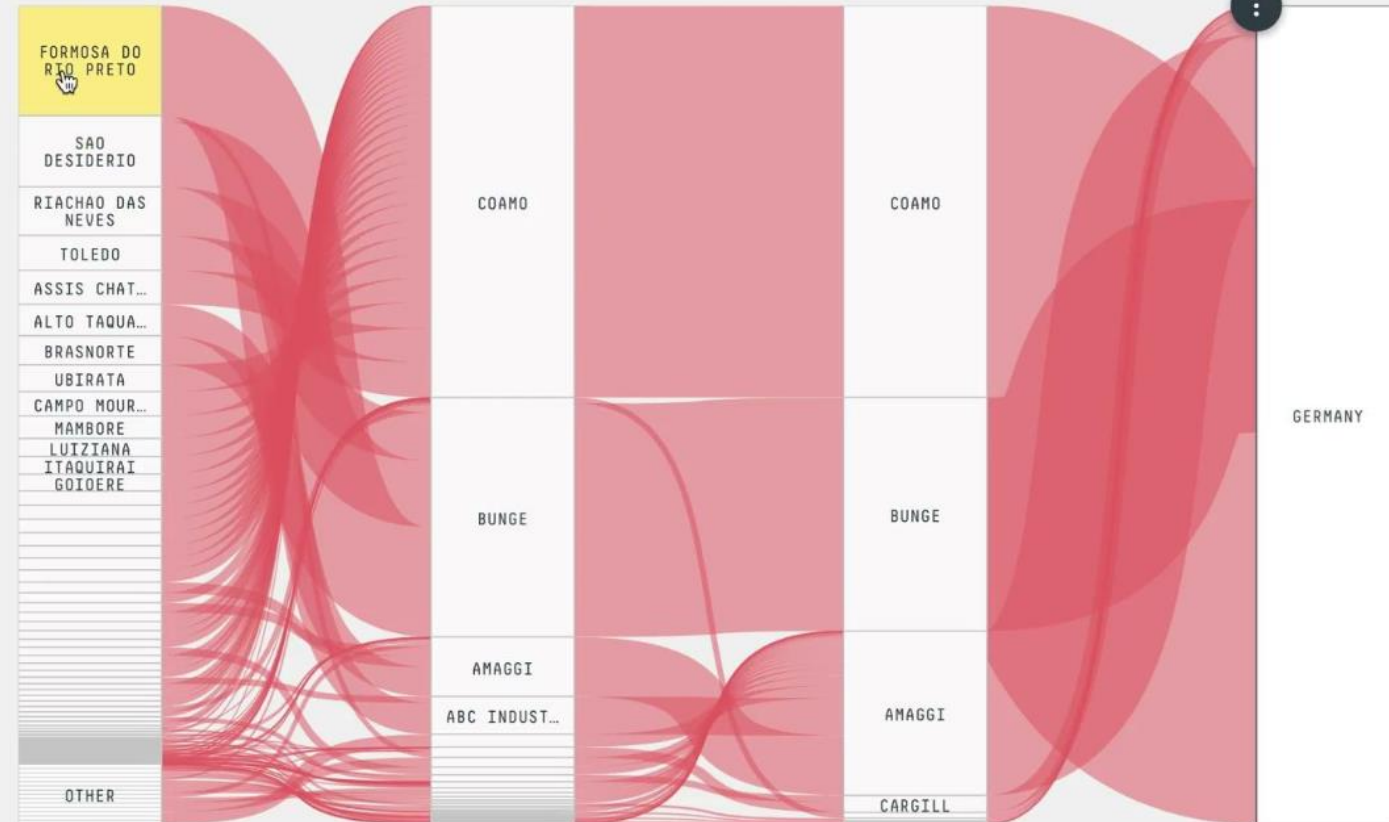
Leaflet | © OpenStreetMap contributors, © Mapbox

MUNICIPALITY

EXPORTER

IMPORTER

COUNTRY



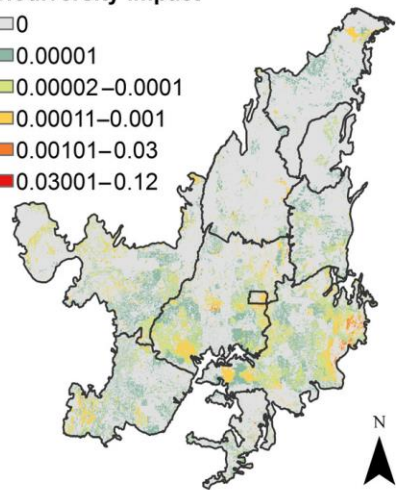
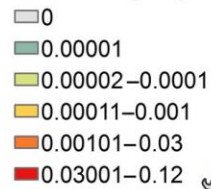
MUNICIPALITY: FORMOSA DO RIO PRETO  
 TRADE VOLUME: 179,125t  
 PRODUCTION OF SOY: 1,329,131 t



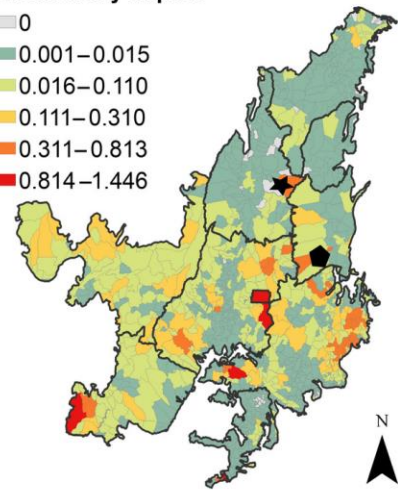
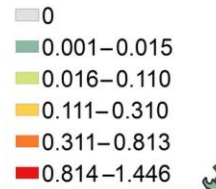
Source: www.trase.earth



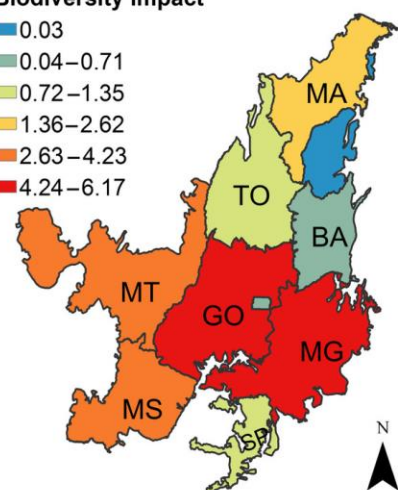
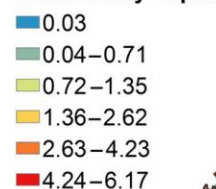
(a) Biodiversity impact



(b) Biodiversity impact

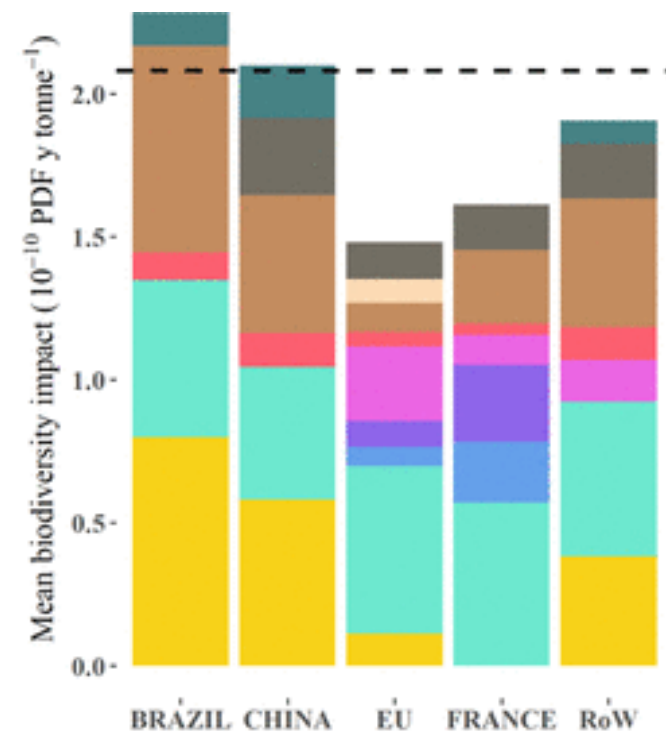
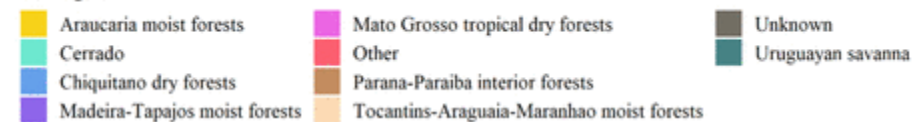


(c) Biodiversity impact



Source: Duran et al. 2020. *Methods in Ecology and Evolution*

Ecoregion



Source: Lathuilliere et al 2021. *Environmental Science & Technology*



## WHAT WOULD YOU LIKE TO SEE?

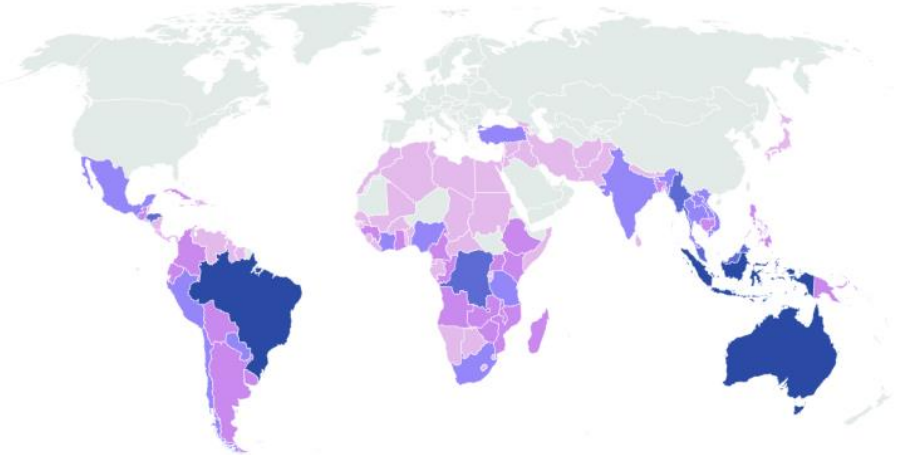
Visualize the **Tropical Deforestation (ha)** associated with **United Kingdom's** commodity **consumption**

[MORE FILTERS](#)

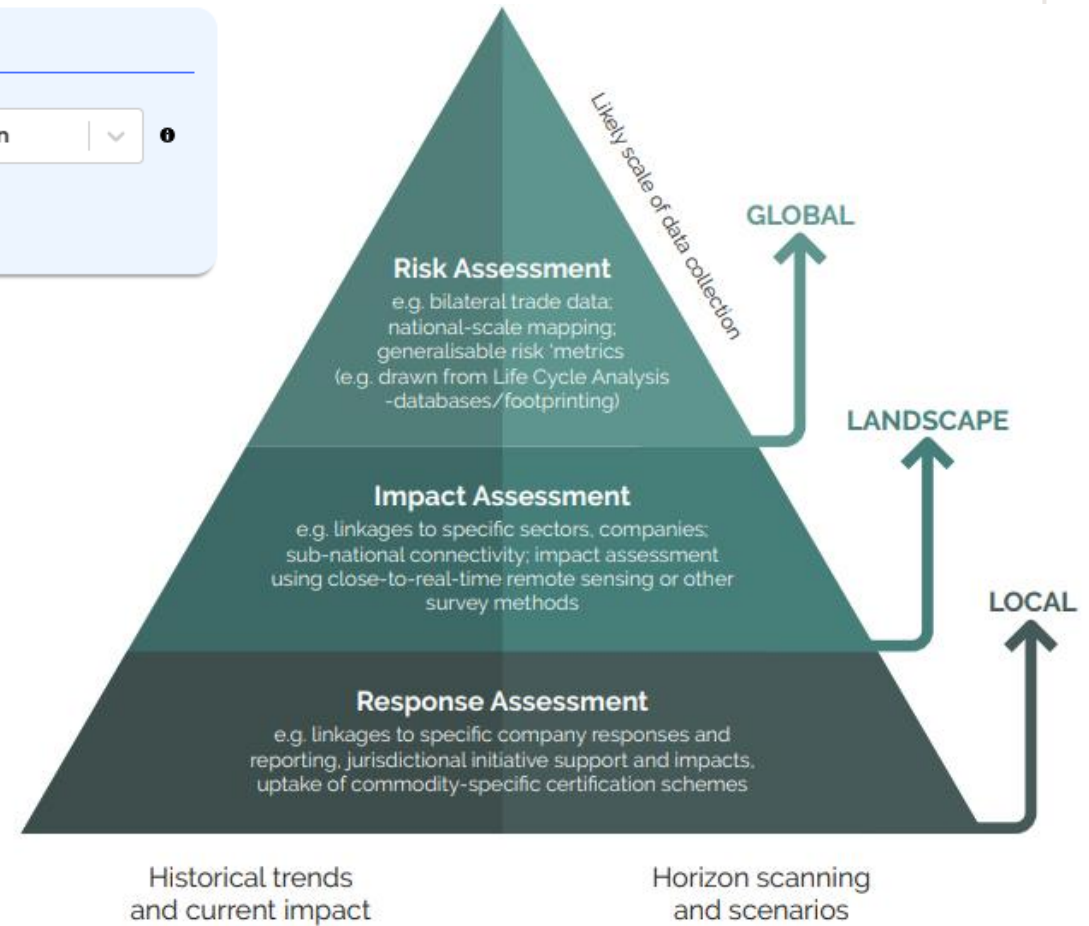
[UPDATE DATA](#)

### TROPICAL DEFORESTATION (HA) BY CONSUMPTION FLOWS

2017



[DOWNLOAD ↴](#)



Source: UK Global Resource Initiative Recommendations Report

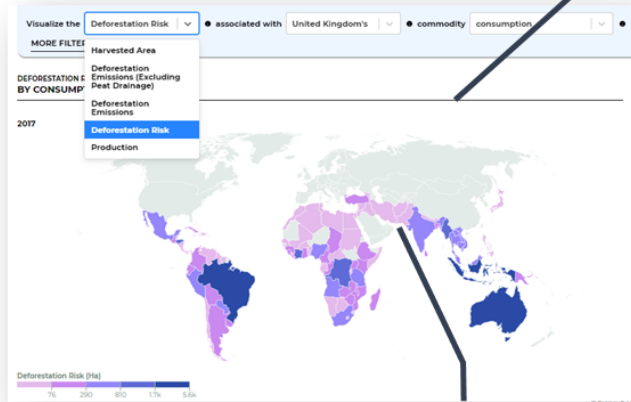


# Understanding complex supply chains

Where are global risk hotspots?

What are the relative roles of different traders?

How do government and private commitments overlap?

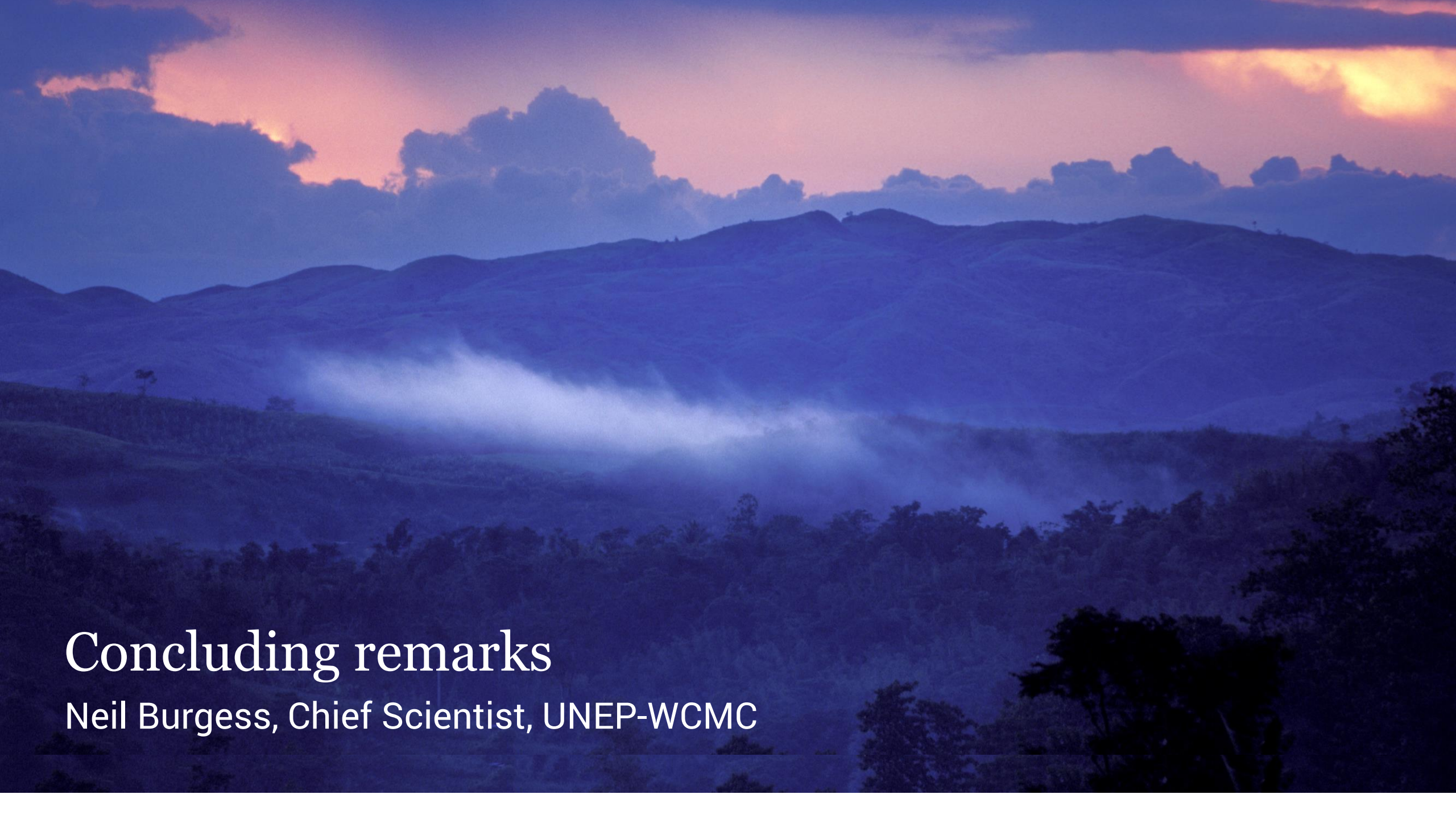


Which countries are driving impacts?

What are the impacts on biodiversity?

And where are impacts most acute?





# Concluding remarks

Neil Burgess, Chief Scientist, UNEP-WCMC

# NEXT STEPS

- Fully operational supply chain assessment tools
- Coherence around impact metrics
- Operationalisation of SBTn guidance
- Understanding impacts of declarations, policies, laws, regulations
- Going to scale across multiple types of business





Thank you

**UN**   
**environment  
programme**

**WCMC**