# SOYBEAN IN THE TRADE Hub

TRADE, DEVELOPMENT & THE ENVIRONMENT HUB

UKRI UK Research and Innovation

GCRF Global Challenges Research Fund

University of Reading

UNIVERSITY OF CAMBRIDGE — INSTITUTE FOR SUSTAINABILITY LEADERSHIP

UNIVERSITY of York

imaflora

IIS INTERNATIONAL INSTITUTE FOR SUSTAINABILITY

FEALQ

UN environment programme WCMC

WWF

SOKOINE UNIVERSITY OF AGRICULTURE
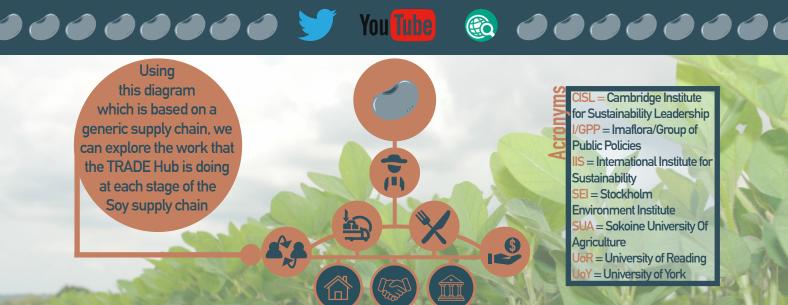
CEBRAP

**O**riginally cultivated in China more than 3000 years ago, soybean today is a global commodity, with 170 countries directly taking part (either as importers, exporters or both) to international trade flows in 2017.

**G**lobal soybean trade flows were reported to be worth over 58 billion US$ in 2017, with an additional 23 billion for soybean meal trade and 9 billion for soybean oil.

**W**ithin the TRADE Hub, we are exploring various facets of the soybean trade in Brazil (world's largest exporter of soy), China (largest importer), and Tanzania (an emerging producer of soy).

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Using this diagram which is based on a generic supply chain, we can explore the work that the TRADE Hub is doing at each stage of the Soy supply chain

**Acronyms**

CISL = Cambridge Institute for Sustainability Leadership
I/GPP = Imaflora/Group of Public Policies
IIS = International Institute for Sustainability
SEI = Stockholm Environment Institute
SUA = Sokoine University Of Agriculture
UoR = University of Reading
UoY = University of York

# FARMERS/PRACTICES

We are studying production systems and mechanisms - filling gaps in knowledge about current farming practices, impacts on ecosystems and people, and direct impacts of high-level policy decisions.

### Brazil

- Evaluating the impact of soybean production on deforestation in the Brazilian Amazon and Cerrado biomes, based on a farm level econometric analysis (I/GPP)
- Using land mesh databases, integrated to satellite images, to build a comprehensive database providing information about deforestation and soybean production in Brazilian Amazon and Cerrado biomes (I/GPP)
- Understanding the consequences of global roundtables for soy/ beef production in Brazil (CEBRAP)

### Tanzania

- Understanding soybean import replacement policies, and their impact on farmers and nature (SUA)
- Exploring options to enhance income distribution among actors of the soybean supply chain in Tanzania

## Did you know?

China is the world's largest importer of soybeans. In 2018, 57% of the globally traded soybean was imported by China.

### China

Analysis of dynamics between China's trade policies and international soybean trade, as China is the top soybean importer.

Take a look at our latest Soybean Report

### Brazil

Understanding about the environmental dimensions of Brazilian Soybean production (Imaflora/GPP)

### Tanzania

Analysing the various import replacement options

## IMPORTERS

We are dissecting the role that importers play, and researching how demand-side management can change the way commodities are traded.

## CONSUMERS

We are studying drivers of consumer behaviour, and mechanisms of influence.

- Providing insights on how consumers can be cost effective in sourcing soybeans (SUA)
- UoR-led soybean report: reviewed the evolution of soybean consumption and trade; identified existing trade agreements, private schemes and voluntary tools – as well as the main institutional actors – relevant in the soybean sector. The team is now working on a policy brief for sustainable soy in Brazil, looking at multilateral, bilateral and regional trade agreements

## FUNDERS

We are investigating how the role of financiers and financial institutions shapes global commodity trade.

- Providing understanding about the environmental dimension of Brazilian soybean production; proposal of an innovative methodology for impact evaluation of deforestation (I//GPP)
- Building a large scale database that includes farmer level data about deforestation and soybean production in Brazilian Amazon and Cerrado (I/GPP)
- Studying deforestation linked to Brazil-China soy supply chain, and the role of traders and banks (CISL)

## TRADE RULES / PRIVATE SECTOR

We are working towards further integrating environmental and social considerations into global/ corporate trade governance.

- Exploring the consequences of international trade rules for soy production in Brazil (CEBRAP)
- Analysing the distribution of costs and benefits from ecosystem conversion (IIS)

# NATIONAL GOVERNMENT

We are engaging public sector decision-makers with the Hub's findings, enabling pathways to critical shifts in planning and implementation.



**Initiatives and outputs include:**

- A workshop with stakeholders and TRADE Hub partners to discuss the main policies and trade agreements that can impact the Brazilian agricultural commodities production, land use and biodiversity (*IIS*)
- A policy brief – in collaboration with several partners in the Brazilian hub – exploring different policy options for increasing the sustainability of the soybean supply chain in Brazil (*UoR*)
- The TRADE Hub's China team will work together with our global team to identify factors that influence China's soybean trade related policies, and analyse dynamics between China's trade policies and international soybean trade. Dissemination events will be held with Chinese trade policy makers, in order to increase understanding of international trade policies, major disruptive events (especially those related to biodiversity), and recommend pathways to adapt China's agricultural policies to ensure sustainability

# METRICS & TOOLS

We are developing powerful models that envision future pathways for trade, as well as metrics and indicators that help plan and monitor for more sustainable trade systems.

Our work on soy will produce:
- Econometric studies on social indicators of soy production in Brazil (*CEBRAP*)
- Thematic studies on territorial impacts of soy production in Brazil (gender, violence, food security) (*CEBRAP*)
- Metrics combining the level of engagement towards sustainability with market power of different stakeholders (*UoR*)
- Quantification of impacts of WTO membership on the quality of environmental policies & regulations at the national level (*UoR*)
- Intercomparisons of biodiversity metrics across diverse commodities/ countries, starting with soy production in the Cerrado (*SEI/UoY*)
- Innovative methodological approaches analysing the impact of agricultural production on deforestation - used to assess the impact of soybean production on deforestation in the Brazilian Amazon and the Cerrado (*I/GPP*)

To read our latest blog post *"The Great Soybean Expansion: Miracle or Curse?"*
[click here](#)

# CAPACITY BUILDING

We are working consistently towards improving capacity and skills for all TRADE Hub members, with an emphasis on interdisciplinary learning and knowledge exchange.

The initiatives we have taken include:
- A hub-wide "publication mentoring scheme", connecting Early Career Researchers (ECRs) with senior scientists and practitioners within the hub
- Internal workshops on diverse and transferrable skills. Examples include:
  » One-to-one virtual training on gravity models and research infographics
  » Training on data analysis using R to all Tanzania project members, organized by *SUA*