Trade
4 Sustainable Development

Task 1.1 : Linkages between trade and the SDGs

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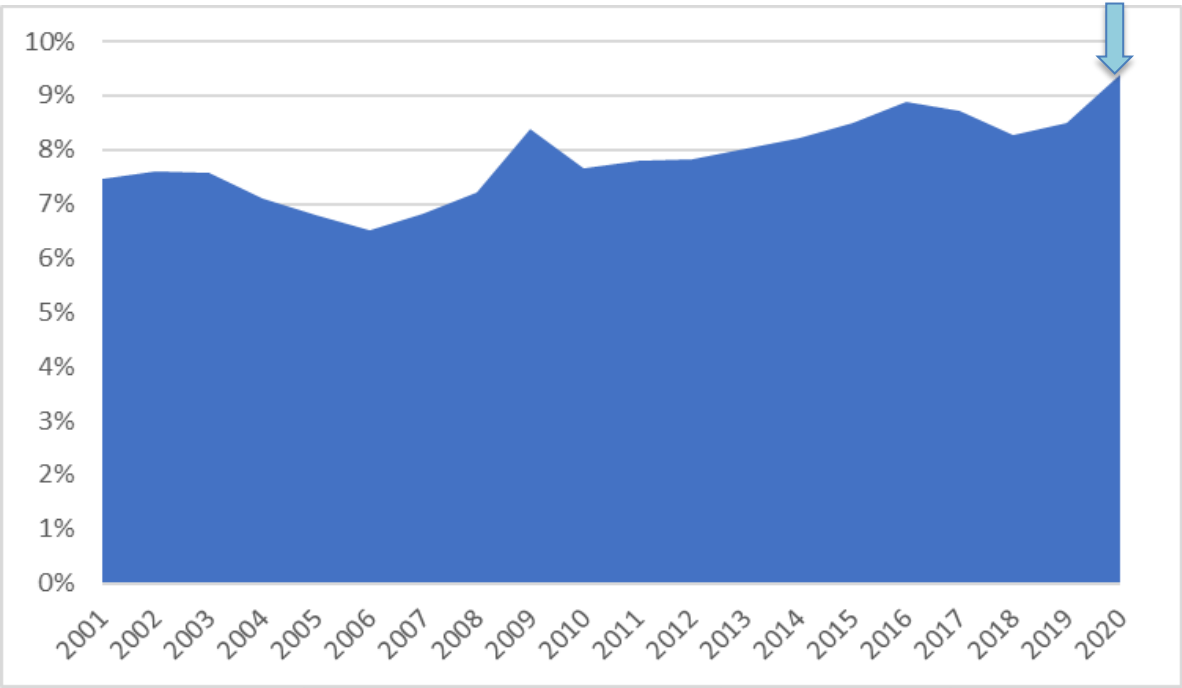
The share (%) of agri-food products in total world trade of all products



During the COVID 19 pandemic in 2020, the world trade of all products decreased by more than USD 1 trillion, but the trade of food products increased by USD 28 billion. Therefore, the share of food products in the world trade of all products increased to its highest level at 9.4% in the past 20 years.

This is an indicator of the resilience of global food trade.

	Unit: 1000 USD	
	2019	**2020**
All Products	18,736,223,963	17,271,017,748
Food Products	1,591,325,696	1,619,034,950
Food share from all products	8.5%	9.4%

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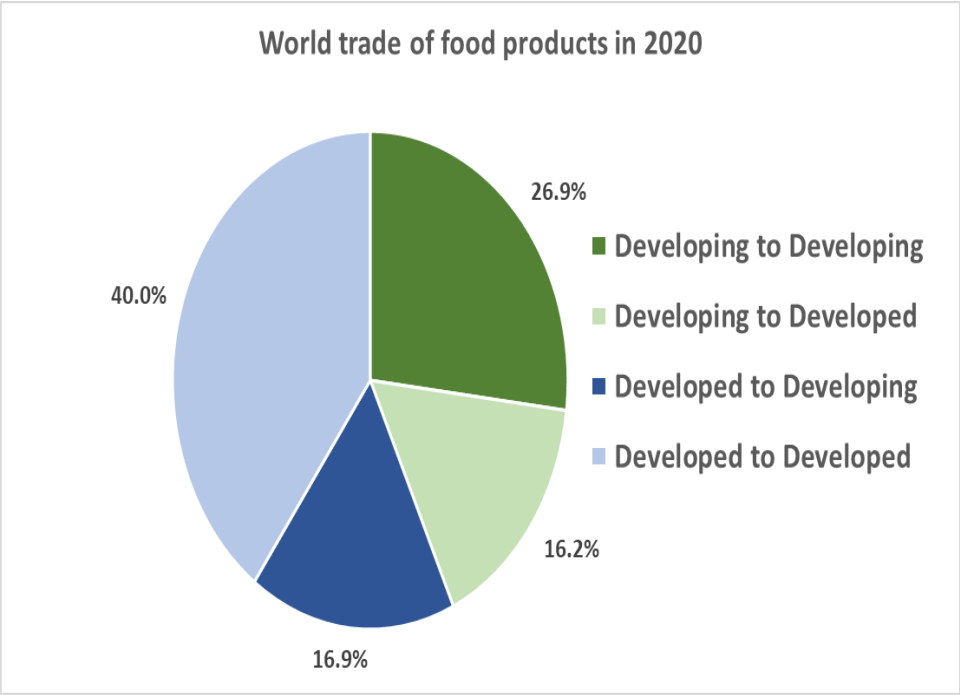
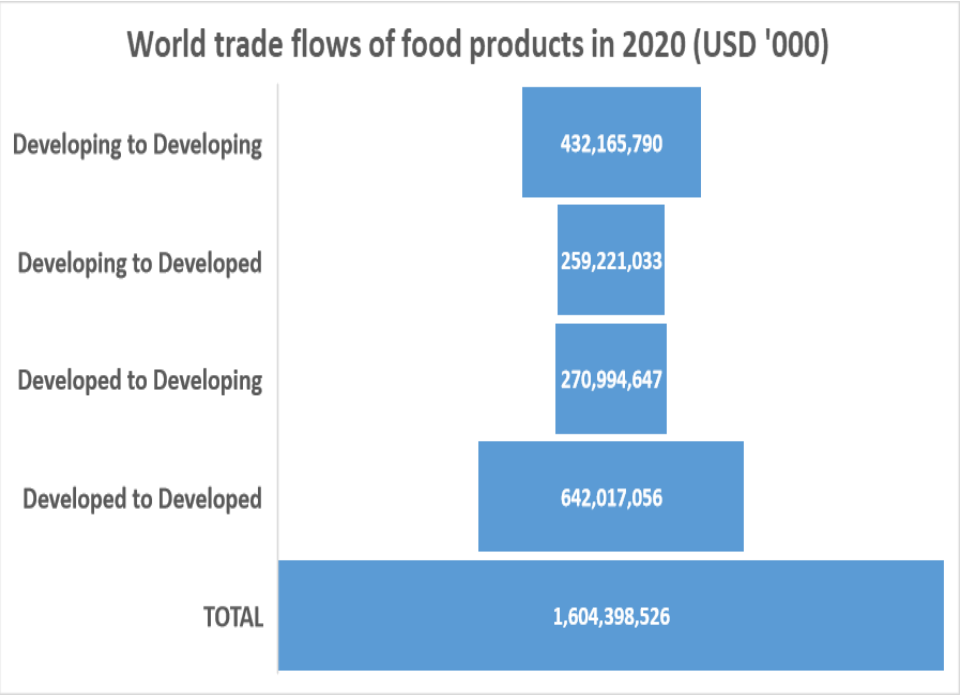
Statistics source:
International Trade Centre (ITC)

The different trade flows between developing and developed countries





Source: ITC statistics based on UN COMTRADE and ITC statistics

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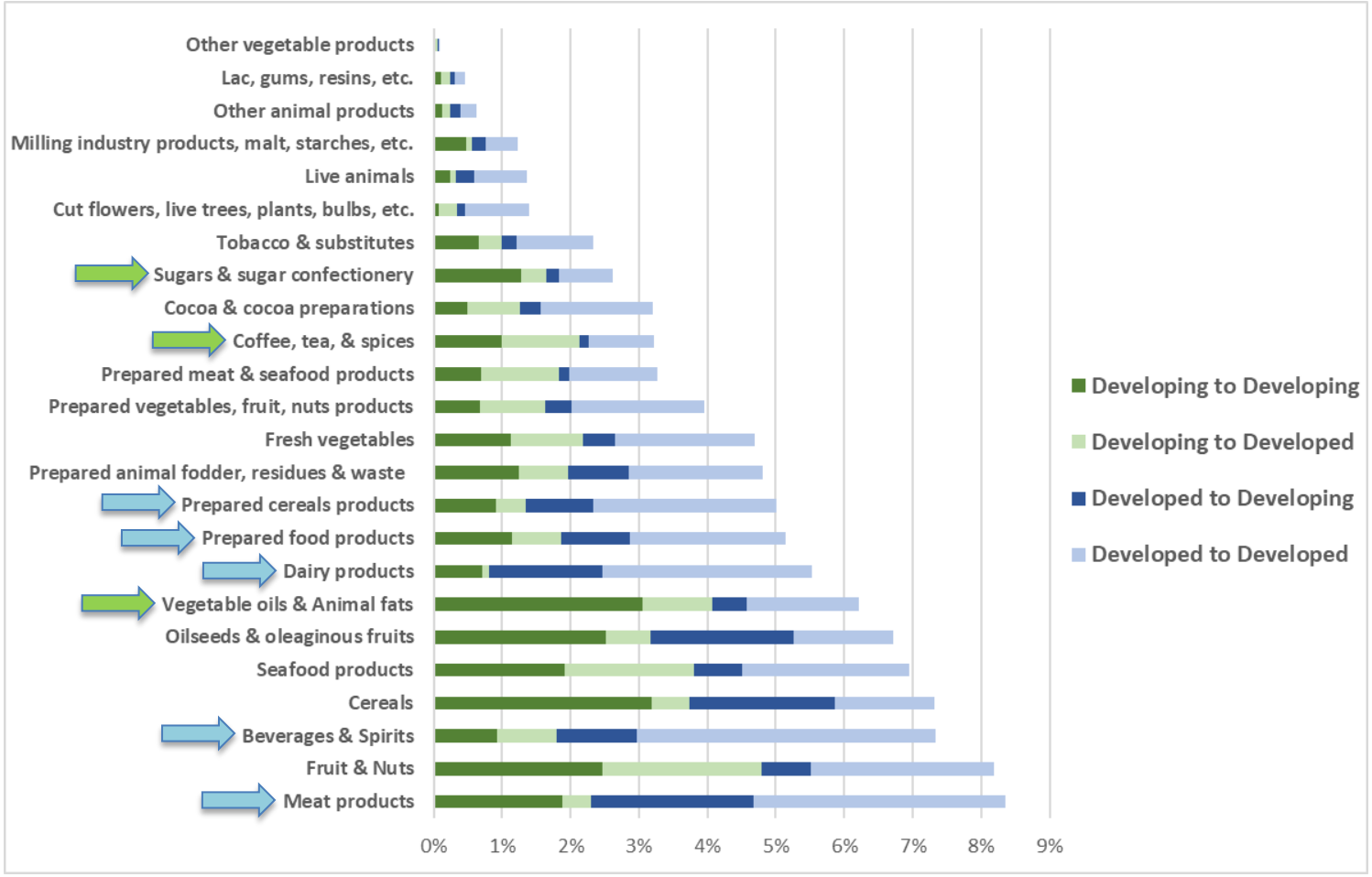
The share and ranking of different food products in total world trade



Source:
ITC statistics

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Product and value chain characteristics for food products exported from developing countries (Feyaerts et al. 2020 and own analysis)

	Fresh fruit & vegetables	Tropical commodities	Cereals	Seafood
Crop and production characteristics				
Type of crop or production	Annual crops (most vegetables) and perennial crops (most fruits)	Perennial crops (coffee, cocoa, tea, oil palm), grown as annual crops (cotton, tobacco, sugarcane)	Annual crops	Annual harvesting (*most aquaculture*)
Labor intensity	High	High	Low	Medium
Land intensity	Low	High	High	Low
Type of producers	Mainly agro-industrial companies; some smallholder farmers	Smallholder producers (cocoa, coffee, tobacco, cotton); small and large scale producers (tea, sugarcane, palm oil)	Large, medium, and small producers	Large, medium, and small producers
Product characteristics				
Value of product	High	Medium *(depending on the crop and level of processing)*	Low	High
Storability of product	Low	Medium *(depending on the level of processing)*	High	Low
Value chain characteristics				
Governance and state involvement	Liberalized and privatized	Partially liberalized with remains of state intervention (depending on the subregion)	High degree of state intervention (depending on the subregion)	Partially liberalized with regulatory interventions
Private and foreign direct investment	Widespread foreign direct investment	Widespread private sector investment	Emerging private sector investment	Widespread private sector investment
Regulation through standards	Strict regulation through both public and private standards	Less strict regulation; private sustainability standards are important	Limited regulation through standards	Strict regulation through both public and private standards
Degree of consolidation	Strong consolidation throughout the supply chain	Consolidation in processing and exporting	Large number of producers and traders, differentiated by size	Consolidation in processing and exporting with large number of producers
Degree of coordination	Vertical integration in agro-industrial companies; vertical coordination through contract-farming schemes	Horizontal coordination among farmers; vertical coordination through out-grower and contract-farming schemes	Low levels of coordination; prevalence of spot market transactions	Vertical coordination by contract-farming in GVC. Low levels of coordination in LVC
Product and quality differentiation	Product and quality differentiation	Quality differentiation mainly export chains	Limited product and quality differentiation	Strong differentiation between GVC and LVC

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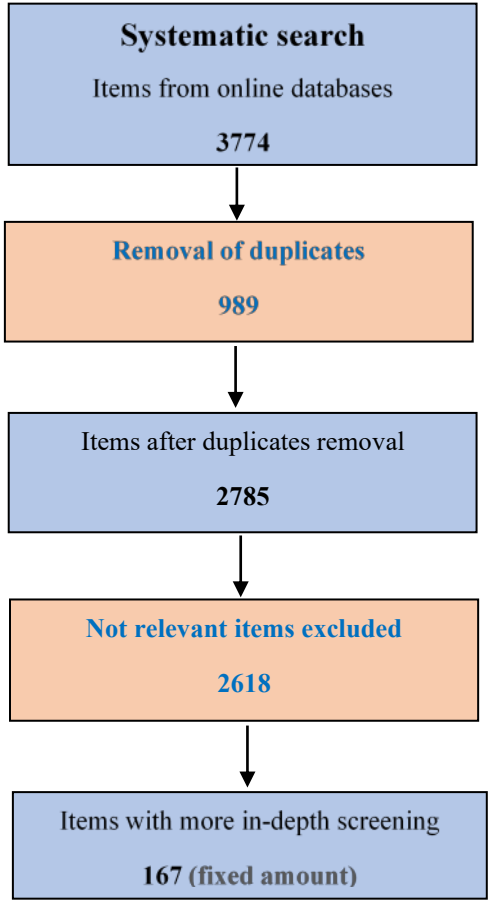
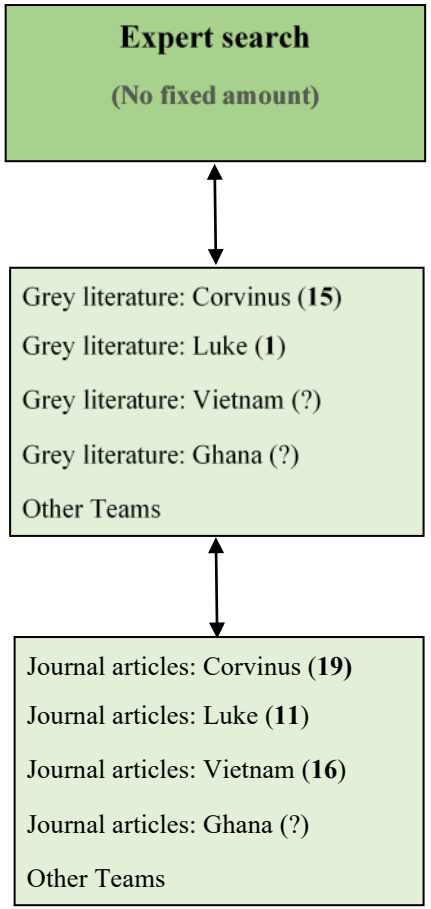
The process for the literature review

Two parallel process

1. **Systematic search**
   - Search for **all** trade and SDG-related, peer-reviewed **sources**
   - Scopus and Web of Science
2. **Expert search**
   - Search for only **agri-food trade** and SDG-related, peer-reviewed sources
   - Search for non-academic sources (**grey literature**)





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Outline of Deliverable 1.1

1 Direct and indirect linkages between trade and SDGs *(5 pages)*

2 The three dimensions of sustainability covered by the SDGs (*20 pages*)

2.1 Economic dimension

2.1.1 Markets and value chains

2.1.2 Economic development and growth

2.1.3 Policies and governance

2.2 Social dimension

2.2.1 Food and nutrition security

2.2.2 Labour and employment

2.2.3 Livelihoods and wellbeing

2.3 Environmental dimension

2.3.1 Biodiversity

2.3.2 GHG emissions, pollution and deforestation

2.3.3 Renewable energy

3 Spatial characteristics (*8 pages*)

3.1 Global level

3.2 Regional level

3.3 Local level

4 Characteristics by products and global value chains (*7 pages*)

5 Positive and negative outcomes of trade on the SDGs (*5 pages*)

6 Conclusions *(3 pages)*

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Source: Stockholm Resilience Centre
https://www.stockholmresilience.org/research/research-news/2017-02-28-contributions-to-agenda-2030.html

The direct and indirect linkages of global value chains to the SDGs

	Environmental Dimension				Social Dimension								Economic Dimension				Partnerships
	SDG 6	SDG 13	SDG 14	SDG 15	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 7	SDG 11	SDG 16	SDG 8	SDG 9	SDG 10	SDG 12	SDG 17
Global Value chains																	
Direct Linkages	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X
Positive Outcomes	X	X	X	X	X	X	X	X	X				X	X	X	X	X
Negative Outcomes		X	X	X			X	X				X	X	X	X		
Indirect Linkages		X	X	X	X	X									X	X	X
Positive Outcomes					X	X										X	X
Negative Outcomes		X	X	X	X										X	X	
Supporting literature	Arampantzi & Minis 2017, Asche et al. 2015, Ayompe et al. 2021, Bacon et al. 2008, Bellassen et al. 2021a, Bellassen et al. 2021b, Chiputwa & Qaim 2016, Chiputwa et al. 2015,																
	Donati et al. 2020, D'Souza et al. 2020, Drut et al. 2020, Feyaerts et al. 2020, García-Alaminos et al. 2020, Gema et al. 2018, Govereh & Jayne 2003, Hilal et al. 2020,																
	Hoang 2021, Hoang et al. 2021, Hoang 2020, Hoang 2018, Hoang et al. 2017, Hoang 2015, Kaplinsky & Morris 2018, Lee et al. 2012, Malak-Rawlikowska et al. 2019,																
	Meemken et al. 2017, Monier-Dilhan et al. 2020, Muller et al. 2020, Shumeta & Haese 2018, Tallontire et al. 2011, Van den Broeck et al. 2018, Yaro et al. 2017																

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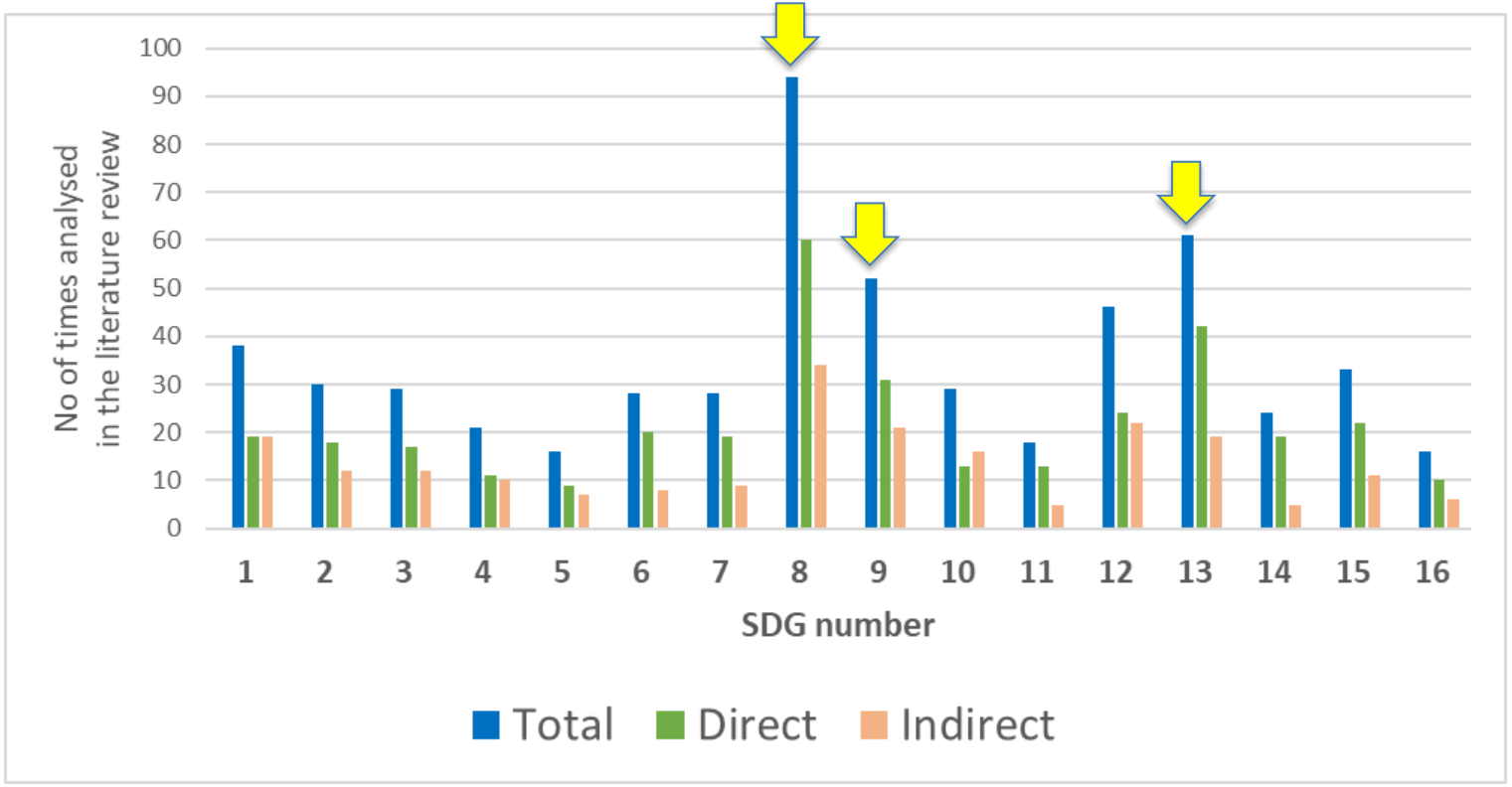
International trade is mostly linked to which SDGs?



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Different conditions for the positive and negative outcomes on the SDGs

International trade is mostly linked to

SDG 8 (Decent Work and Economic Growth), followed by

SDG 13 (Climate Action), and

SDG 9 (Industry, Innovation and Infrastructure)

Conditions for positive and negative outcomes	
Positive	**Negative**
Liberalised and privatised sector	Strong state intervention
Enforced standards both public and private	Limited standard enforcement
Strong foreign direct investments	Rudimentary private investment
Vertical integration	Weak coordination along supply chain

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Direct and indirect linkage, positive and negative outcomes

Strong foreign direct investments→ direct linkage to **SDG 8** and **SDG 9**

→**positive outcomes**: economic growth, employment opportunities, access to markets

→E.g., in Indonesia, agro-industrial oil palm plantations are an important driver of economic development since they provide employment in rural areas and contribute to state revenues. Infrastructure development (e.g., feeder roads) links rural areas with urban areas, relevant markets, and marketplaces for direct sales as well as improves access to inputs and energy for smallholders.

Limited standard enforcement → indirect linkage to **SDG 13** and **SDG 15**

→ **negative outcomes**: deforestation, loss of biodiversity, land grabbing

→ E.g., carbon sequestration and storage are important ecosystem services since deforestation of peatlands due to the rapid expansion of oil palm plantations result in an increase in GHG emissions. In addition, habitat for species are destroyed due to land conversion. There have been over 600 land disputes in Indonesia between local communities and palm oil companies due to the granting of new concessions for oil palm plantations in primary forests and peatlands.

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Contributions of WP1 to other WPs

WP1 Structured review on the relationships between international agricultural trade and sustainability	Background information on the impact of regional trade agreements on the SDGS	**WP2** The role of WTO, and EU bilateral and regional trade agreement to meet SDGs: gaps and best practices
WP1 Structured review on the relationships between international agricultural trade and sustainability	Relevant indicators for the quantitative analysis (modelling) of the impacts of trade on the SDGs	**WP3** Quantitative model-based analysis of the sustainability impacts of agricultural trade
WP1 Structured review on the relationships between international agricultural trade and sustainability	Background information for the selection of case studies and qualitative in-depth analysis	**WP4** Qualitative in-depth analysis of linkages and case studies
WP1 Structured review on the relationships between international agricultural trade and sustainability	Literature database of journal articles and grey literature for coherence analysis of EU policy frameworks and trade policies	**WP5** Coherence analysis of EU policy frameworks
WP1 Structured review on the relationships between international agricultural trade and sustainability	The building blocks for constructing the **needed bridges** for policy makers, e.g., EU Commission, national governments and local institutions	**WP6** Implications for policy

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Product and value chain characteristics for food products exported from developing countries

	Fresh fruit & vegetables MANGO	Tropical commodities COFFEE	Cereals RICE	Seafood SHRIMP
Crop and production characteristics				
Type of crop or production				
Labor intensity				
Land intensity				
Type of producers				
Product characteristics				
Value of product				
Storability of product				
Value chain characteristics				
Governance and state involvement				
Private and foreign direct investment				
Regulation through standards				
Degree of consolidation				
Degree of coordination				
Product and quality differentiation				

General commodities provide the common characteristics, but specific products make the results more exact and meaningful; thus, we are proposing to focus on specific products for the four types of GVC.

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