Digital Transparency Mechanism

Transforming the Trade-Environment Nexus

How international trade rules can be more responsive to biodiversity concerns.

The ecosystems and biodiversity that underpin the achievement of almost all SDGs are suffering from unprecedented and accelerated degradation and loss. Trade policies can work together with other incentive instruments to encourage beneficial activities, discourage harmful activities, and improve markets for biological resources.

Challenges to this include a lack of robust consumer information on the biodiversity impact of products and services; limited internalizing and internationalization of environmental externalities, including impacts on biodiversity; and limited monitoring of the environmental impact of production and trade on biodiversity in real time to identify compliance and enforcement failures.

Digital transformation offers new opportunities to address these challenges.

The role of digital transformation in three key environmental monitoring domains for enhancing nature-positive trade.

1. Monitoring environmental change and resource exploitation at global and national scales

International monitoring systems, one of the key action points emerging from the Stockholm Conference in 1972, have evolved significantly with two developments: First, a boom in communication and dissemination of environmental information facilitated by the proliferation of global internet connectivity.

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Second, digital devices-enabled data collection in real-time about different ecosystems and biodiversity. This has facilitated the identification of nature hotspots for deforestation, overfished stocks, and illegal exploitation activities. Monitoring of environmental changes and exploitative activities is typically undertaken by various stakeholders. These include the private sector, governments, research institutes, and civil society, often involving citizen scientists.

2. Supply chain monitoring and transparency

Cost reduction and accessibility of sensors and data gathering networks permit data collection along the life-cycle of products, and generate insights for supply chain optimization. Although some initiatives provide public access, data-sharing schemes are needed to build on public monitoring of value chains. The monitoring of supply chains has often been the remit of private organizations determined by their own ESG strategies. However, governments are playing an increasing role in mandating supply chain data disclosures, for example, the EU Digital Product Passport.

3. Monitoring the effectiveness of trade policymaking and implementation

In addition to the WTO which is largely responsible for monitoring transparency mechanism in Regional Trade Agreements, the use of big data, including media coverage, enables the sourcing of real-time trade policy information beyond member states' notifications. Lastly there is also growing emphasis on the contribution of the private sector makes, as to comply with the various international regulations.

Opportunities from digital transformation for biodiversity-related trade rules

Enhancing the enforcement of "weak" biodiversity provisions by improved evidence breaches and enforcement capacity for any governmental actions of biodiversity objectives.

*Opportunity: Encouraging the use of citizen science to support national policy.*

Addressing harmful incentives to biodiversity through operationalizing information exchange provisions in trade agreements

Opportunity: Establishing a rebuttable assumption when imposing restrictive measures or conditioning market access to economic operators negatively impacts biodiversity.

Creation or strengthening of the green trade market by providing robust life-cycle traceability of products and their environmental impact.

Opportunity: Value chain transparency requiring minimum levels of supply chain disclosure.

Enabling systemic changes: The design of a digitally enabled transparency mechanism
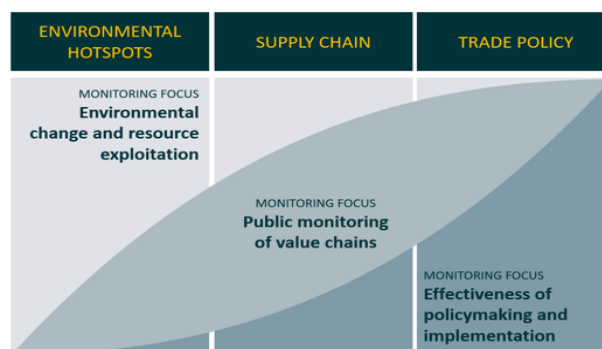
Digital transformation in the three monitoring domains can potentially make the international trade regime more responsive to biodiversity concerns. The focus is on using digital tools to improve the visibility and accountability of trade activities concerning environmental sustainability, thereby facilitating more informed decision-making and policy development.

The technical design covers the identification of environmental hotspots (e.g., biodiversity loss), connecting hotpots with key attributes of individual supply chains, and bridging attributes of supply chains with trade policies.

Accordingly, trade policymakers could identify the gap in trade disciplines needed to address the root causes of environmental hotspots, the green trade policy actions to be taken at the national level, and the forum suitable for making new trade rules.

The proposed mechanism could provide at least two kinds of systemic support for biodiversity-related trade disciplines. First, it can monitor the coverage in existing agreements associated with the environment hotspots of trade value chains and facilitate setting the priority for the next rounds of trade agreement negotiations. Second, it can help tackle the capacity gap in formulating and implementing trade disciplines for biodiversity.

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