

Task Force 04

TRADE AND INVESTMENT FOR SUSTAINABLE AND INCLUSIVE GROWTH

Reducing Agricultural Trade Barriers in a Sustainable Oriented Path

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TF04



Abstract

Some countries in the global North have sought to extend their sustainable standards to a global scale, leading to the emergence of non-tariff barriers that sometimes conflict with World Trade Organization (WTO) principles. These measures can impact the economic growth of developing nations, particularly those that play a significant role in food production. Meanwhile the world faces a triple crisis encompassing food, energy, and climate security. Recent events, including armed conflicts, have exacerbated these challenges. Many countries have responded by implementing protectionist measures, such as export restrictions on food and fertilizers, which contribute to global price escalations. Addressing these interconnected issues requires urgent attention and collaborative efforts to build a more resilient and sustainable future. Some nations, possess the capacity to enhance food, fiber, and energy supply while simultaneously addressing climate change and natural resource conservation. However, it is essential to consider a broader and strategic view on decarbonization that takes into account context-specific science-based emission factors when evaluating environmental impact. The direction of policies must be to support the most vulnerable stakeholders, opening and maintaining accessible markets and applying non-distorting measures to rural producers. The recommendations encompass: the pursuit of multilaterally agreed-upon solutions; foster countries' commitment to open markets; reducing, and ultimately eliminating constraints on food product imports and exports; avoiding non-tariff barriers to maintain smooth trade flows; promoting sustainable production over implementing trade barriers by developing economic incentives to embrace sustainable production standards.

Keywords: Food Trade, Non-Tariff Barriers, Sustainable Intensification, GHG Emissions

Diagnosis

Urged by the increasingly “green” rhetoric of consumers, some countries of the global North have endeavored to extend their own sustainable standards to a global scale, without taking into account that production systems differ substantially around the world. This pursuit has solidified into new non-tariff barriers that are not based on scientific evidence. Measures like the European Union Deforestation Regulation (EUDR) and the Carbon Border Adjustment Mechanism (CBAM), designed by the European Union, which impose taxes on goods that significantly contribute to greenhouse gas (GHG) emissions, serve as illustrations.

These restrictions may clash with World Trade Organization (WTO) principles and consequently influence international food prices, as well as exerting an effect on the economic growth trajectories of developing nations that are major food producers. For example, exports from some countries in the Southern Cone and Africa, ranging from 5 to 36% are subject to the EUDR regulation (Arenas & Echandi, 2023).

Protectionist practices, in general, reward inefficiencies, distort market prices, absorb gains in efficiency and quality that would be achieved through competitiveness, and burden consumers with higher prices, especially the poor (Sbarai & Miranda, 2014). Tariffs on agricultural products remain higher on average than those on non-agricultural goods, with the global average tariff on agriculture products more than 12 per cent compared to around 8 percent for all other goods (Brenton, Chemutai & Pangestu, 2020).

Additionally, food products are the most vulnerable to non-tariff barriers in global trade, such as emerging trade barriers stemming from environmental standards. Moreover, their efficacy in halting deforestation and mitigating GHG emissions remains uncertain. Also, there is lack of awareness regarding Southern Cone countries’ productive

practices and their contribution to climate change, which is often overstated (Estevam, Pavão & Assad, 2023; Viglizzo, 2023).

The world has experienced several shocks resulting in supply chain imbalances and elevating global food security as a paramount concern. Few nations possess the capacity to enhance food, fiber, and energy supply while simultaneously addressing climate change and natural resources conservation and regeneration. South America is well positioned to provide the world with food produced in a sustainable oriented path. Between 2000-21, the region’s agricultural trade balance achieved the most positive surplus globally (see Figure 1); more than 40% of agricultural production was exported in the same period (OECD/FAO, 2023).

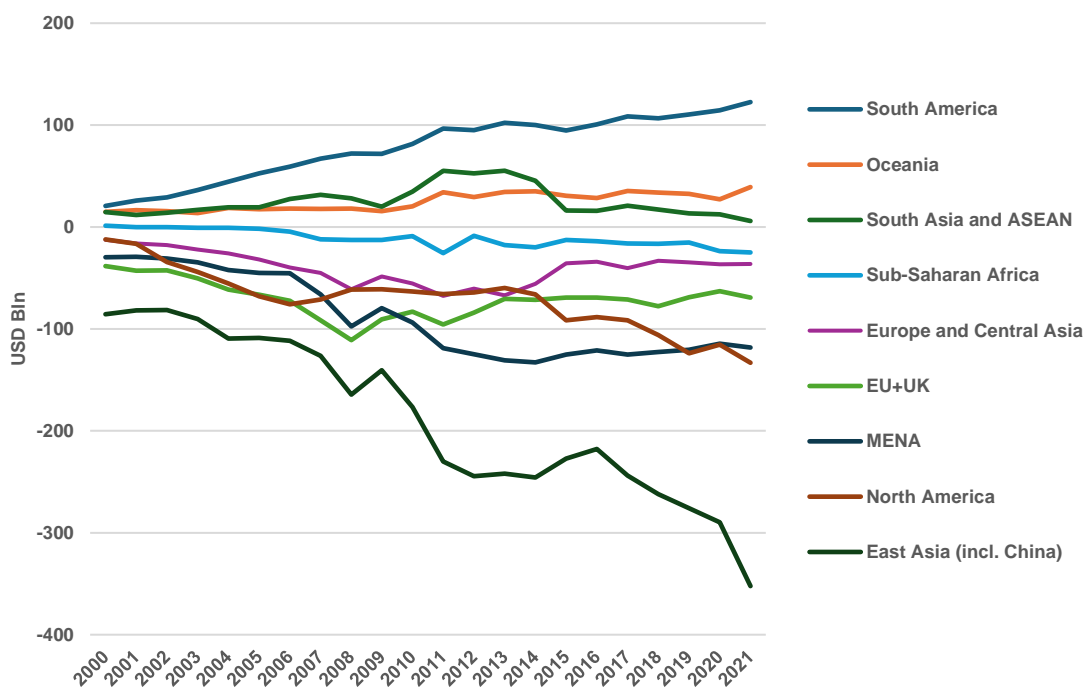


FIGURE 1. Agricultural trade balance, by region (2000 to 2021, in billions of current dollars)

Source: elaborated by Insper Agro Global based on data from UNComtrade (2023).

MENA refers to Middle East and North Africa countries.

Despite the promising potential to provide food, sustainability standards in the Southern context need to be better understood and integrated into rules governing trade. Although there are several challenges associated with quantifying emissions from the land use sector and agricultural production, scientific advancements in Southern Cone nations offers a more accurate and context-specific emission factors than those considered by Intergovernmental Panel on Climate Change (IPCC).

For instance, for Brazil, when calculating soybean emissions, studies reveal that using the default IPCC values results in emissions three times higher than when considering specific practices like no-tillage farming systems and biological nitrogen fixation. This significant difference arises from agriculture land management practices and the absence of nitrogen fertilizer use for soybeans. Another critical example pertains to cattle farming. IPCC provides a single average emission value for enteric fermentation, representing one cattle head, for all South America within the beef cattle class. More detailed context-specific data considering each livestock category on different producing regions, although available is not yet outlined by IPCC (Estevam, Pavão & Assad, 2023). Beef production in the Americas, and particularly in the Southern Cone, involves extensive production systems, which have been increasing production while reducing participation in global emissions (Figure 2).

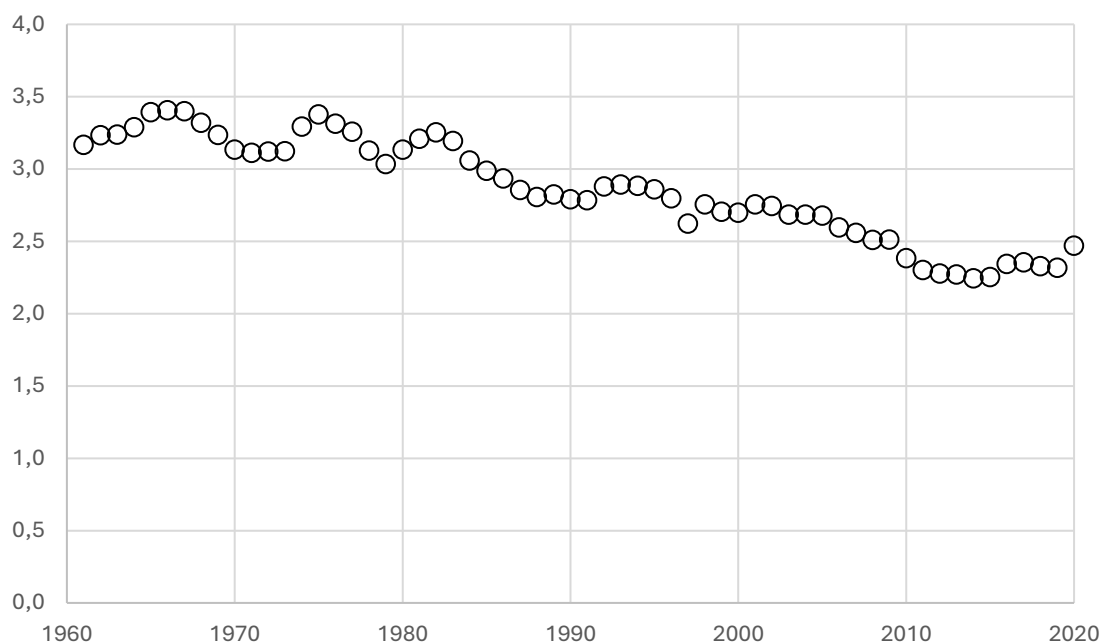


FIGURE 2. Carbon emissions from cattle farming in the Americas as a percentage of global emissions (in Mt CO₂ eq)

Source: elaborated by Viglizzo (2023) based on data from FAOSTAT (2023) and Our World in Data (2023).

Furthermore, absolute emissions alone do not provide an accurate measure for crop and livestock systems. It is essential to consider their carbon balances, taking into account, their potential to capture carbon. This is particularly relevant for the Southern Cone countries regarding the adopted management practices. Figure 3, which focuses on Argentina, illustrates that a significant proportion of cattle farms exhibit positive carbon balances (Viglizzo & Ricard, 2023).

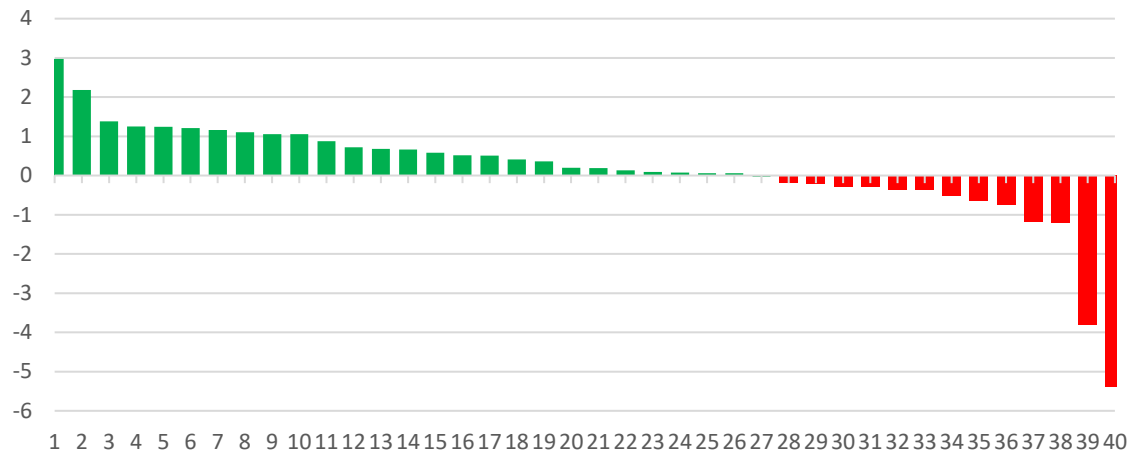


Figure 3. Carbon balances in different farms in Argentina (in tCO₂/hectare/year)

Source: Viglizzo & Ricard (2023)

Recommendations

The world has been grappling with a triple crisis encompassing food, energy, and climate security. Recent events have played a pivotal role in exacerbating this situation. The Covid-19 pandemic triggered a widespread surge in product prices, affecting not only consumer goods but also essential inputs like fertilizers and energy. During this period, the FAO monthly real food price index reached its highest value (Figure 4). Furthermore, global supply chains experienced significant disruptions.

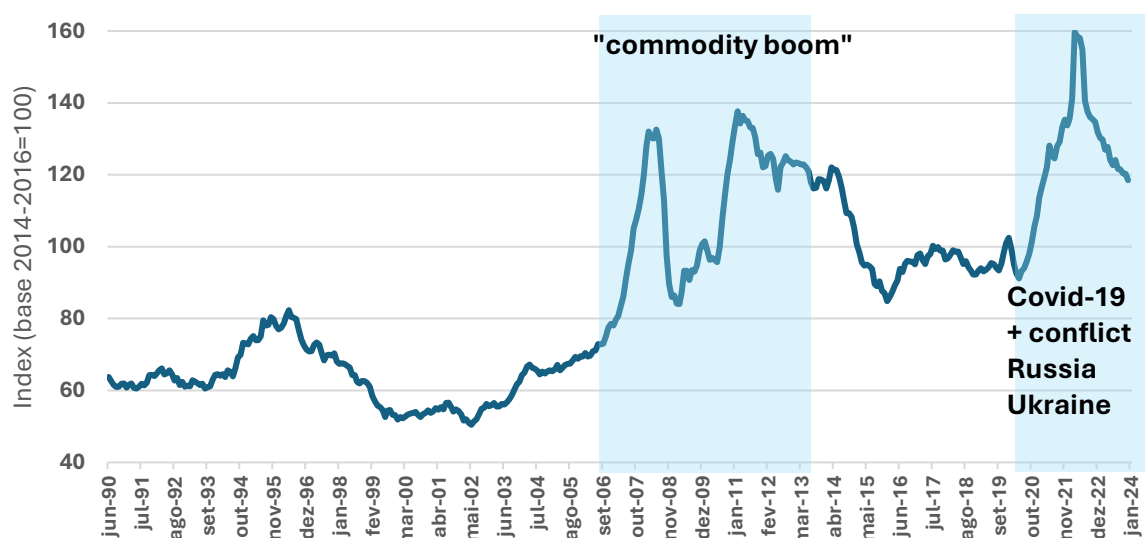


Figure 4. FAO monthly real food price index (FFPI), baseline 2014-2016=100

Source: Elaborated by Insper Agro Global based on data from FAO (2024). * Index to real values, disregarding inflationary effects.

The conflict between Russia and Ukraine had far-reaching consequences, leading to substantial price increases—around 60%—for staple cereals such as wheat, corn, and rice. These commodities constitute a staggering 40% of the world's calorie consumption (Welsh, 2024). From the beginning of the war until July 2022, 22 countries had imposed



restrictions on wheat exports, covering 21 percent of world trade in the grain. These restrictions led to a 9 percent increase in the price of wheat in the period – about one seventh of the total increase in prices since the beginning of the war (Espitia et al, 2022). The imposition of trade barriers has exacerbated the vulnerability of populations in countries reliant on food imports concerning food security.

Simultaneously, the frequency of extreme weather events has surged. China faced excessive rainfall, India grappled with extreme heat, Argentina and Brazil encountered successive droughts and frosts, and the southeastern United States and Europe experienced intense heatwaves (Gang, 2023). Such climatic issues also contributed to the described price hike. These interconnected challenges demand urgent attention and collaborative efforts to ensure a more resilient and sustainable future. In this sense, the direction of policies must be to support the most vulnerable consumers, opening and maintaining accessible markets and applying non-distorting subsidies to rural producers.

➔ G20 should foster countries' commitment to open markets, ensuring continuous international food trade flows as part of a global initiative for food security. It could be done by advocating for reducing and ultimately eliminating constraints on food product imports and exports to enhance supply-demand alignment and reduce uncertainty.

Over two dozen countries have responded to disruptions on food chains by implementing measures that restrict international food trade, including exportation bans, taxes, quotas (IFPRI, 2024). These restrictions have affected 15% of global calorie trade (IFPRI, 2024). Unlimited public stocks (PSA) and distortive export subsidies complete the flawed policies package. Trade measures implemented by G20 economies have shown a trend towards increased restrictiveness, as highlighted in the 30th WTO Trade Monitoring Report on G20 trade measures. The report reveals that between mid-May and

mid-October 2023, G20 economies introduced more trade-restrictive measures on goods than trade-facilitating ones (WTO, OECD & UNCTAD, 2023).

The consequences of these actions are far-reaching, impacting vulnerable populations and exacerbating food insecurity worldwide once 80% of the world's population lives in countries that are net food importers and 20% of world grain production crosses borders to reach the consumer (see Figure 5). Food trade accounts for 20% of world's calorie intake (IFPRI, 2018) making it crucial to recognize its role in safeguarding global food security.

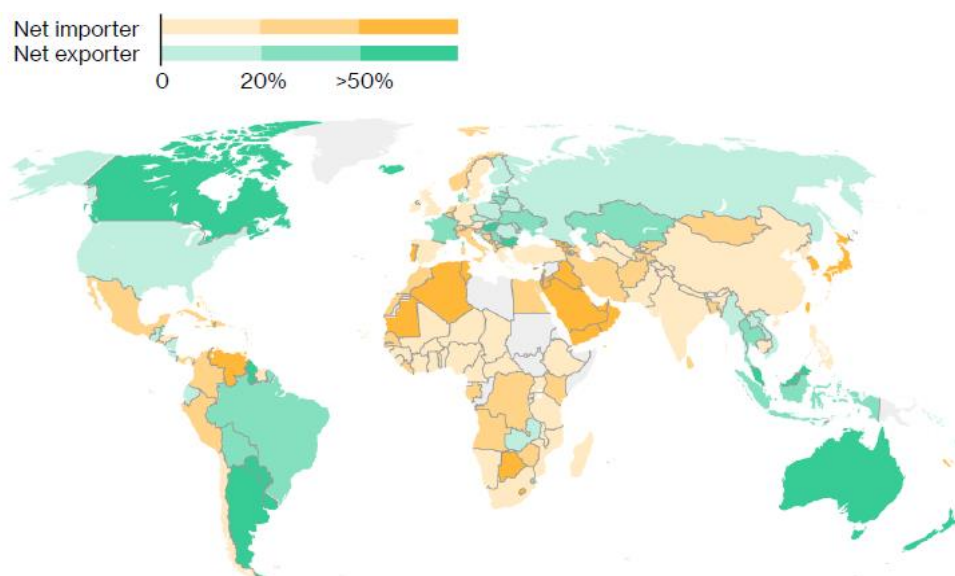


FIGURE 5. Map showing the relationship between food imports and exports (world net importers and net exporters – reference: 2020 monetary values)

Source: Bloomberg (2020)

➔ G20 should guarantee the avoidance of Non-Tariff Barriers (NTBs) to maintain smooth trade flows without hindrance. It could be done by tackling the proliferation of unjustified NTBs, recognizing their detrimental impact on global food security and production system sustainability.

Over the past few decades Southern Cone countries have undergone a process of sustainable intensification. This continuous improvement process, based on scientific approaches, embraces innovations that have boosted productivity while maintaining a low carbon footprint. The main innovations include: i) no-till farming techniques, which reduces CO₂ emissions, enhances soil life, and improves the efficiency of rainwater use; ii) pest-resistant biotech seeds which reduce the need for agrochemicals; iii) crop rotations, cover crops, double cropping and integrated systems, making it possible to increase both agricultural production and carbon sequestration; iv) precision agriculture to optimize input usage efficiency and natural resources conservation and reducing harvesting losses (AAPRESID, CREA, GPS, 2021). Moreover, Crop-Livestock-Forestry-Bionergy integration is a promising option to recover degraded pastures and has the potential to reduce the carbon footprint of beef and dairy production (Rodrigues et al., 2023).

This process allowed the region to show significant productivity gains allowing for land sparing effect (Telhado & Capdevile, 2021; Viglizzo, 2023). From 1990 to 2019, it is estimated that 87% of Brazil's agriculture product growth comes from the gains of productivity; the land-saving effect was about 400 Mha (de Alcantara, Vieira Filho & Gasques, 2021). Brazil also stands out as one of the top countries on historical growth in Total Factor Productivity index comparison (see Figure 6).

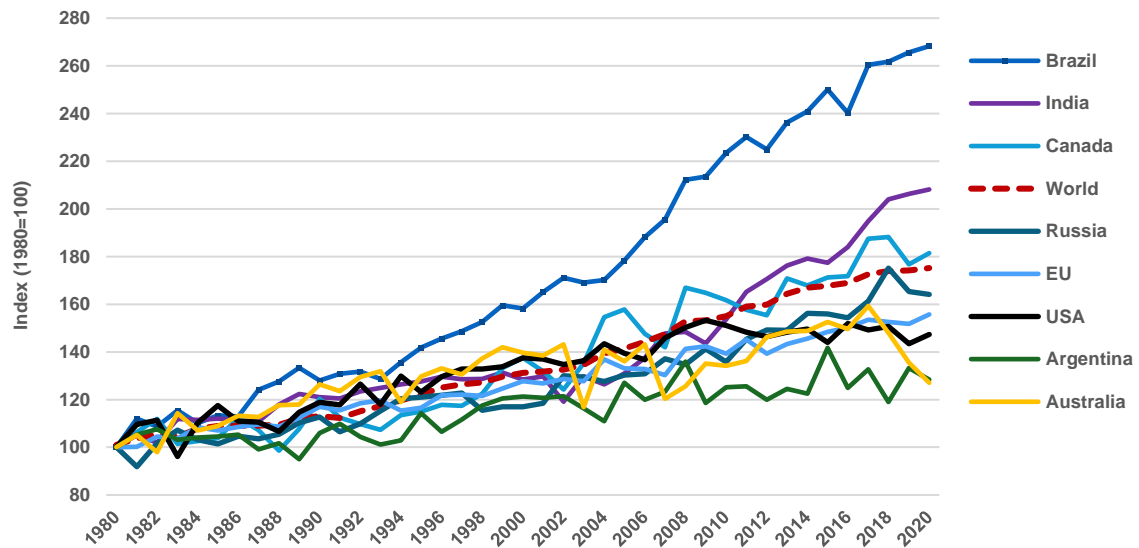


FIGURE 6. Evolution of Total Factor Productivity (TFP) of agriculture in selected countries - index (baseline 1980 = 100)

Source: Elaborated by Insper Agro Global based on data from USDA/ERS (2023).

➔ G20 should promote the pursuit of multilaterally agreed-upon solutions, eschewing unilateral measures.

➔ G20 should reinforce each member country's commitment to base trade measures on scientific evidence, facilitating informed decision-making and policy implementation oriented to sustainability.

It could be done by cultivating dialogue that should prioritize promoting sustainable production over implementing trade barriers. Simultaneously should encourage the development of economic incentives for developing nations to embrace sustainable production standards and optimize resources. It could also consider forming a group of experts to strategically consider diverse perspectives and potential divergences to enhance the understanding of challenges related to the interconnection of food security, climate

change, and environmental sustainability. Such collaborative efforts could lead to an efficient and results-oriented process that take into account context specificities.

Scenarios of outcomes

Considering that G20 countries collectively represent nearly 90 percent of global gross domestic product, two-thirds of the world's population, 80 percent of international trade, and over 80 percent of global investments in research and development, it is imperative for them to set a positive example to contribute to improve the global governance aimed at providing food security while promoting sustainability.

Recent geopolitical upheavals have underscored the significance of trade in ensuring food security. Particularly, the conflict between Russia and Ukraine, countries collectively accounting for approximately 30% of global cereal exports, has heightened risks for impoverished populations, particularly in Africa and Asia, which rely heavily on food imports. While redirecting supplies to other food-producing and exporting nations is a possibility, the concomitant cost implications of sudden spikes in demand and transportation must be considered.

The reduction or even elimination of measures aimed at restricting imports, could reverse losses and price distortions. Regarding food, sanitary or environmental barriers, when not well executed, they may hinder trade flows and the proper utilization of comparative advantages or incentives for more efficient production. Conversely, the opposite might be truth if, instead of barriers, the G20 nation's provide incentives to enhance practices, methods, and technologies of production.

Market openness would ensure food availability and affordable products, benefiting both global food supply and demand, particularly emerging countries. In this context,

increased trade restrictions stemming from environmental concerns may pose a risk to food security if implemented without the accurate calculation of externalities on global trade flows.

Finally, understanding the context specificities regarding GHG emissions provides a more nuanced, realistic, and not biased view on environmentally friendly agricultural practices in the Southern Cone countries, that eventually could be used to inform other areas with extensive and sustainable production systems. Then it would be easier to establish a communication channel within the relevant global forums to foster discussions aimed at defining global standards and measurement guidelines. These guidelines should not only reflect the sustainability patterns prevalent in the global North, but also serve as a reference point for international comparisons. Thus, **measures like the European Union Deforestation Regulation (EUDR) would be applied with a more collaborative, comprehensive, and strategic approach to address the imperative of decarbonization.**

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