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PROMOTING INCLUSIVE BIOECONOMIES? LESSONS FROM AGRI-FOOD GOVERNANCE AND THE POLITICS OF THE SUSTAINABLE DEVELOPMENT GOALS IN SOUTH AMERICA

Prepared by Mairon G. Bastos Lima and Karen M. Siegel

- The bioeconomy is not automatically inclusive or sustainable; it may also entrench marginalisation and undermine the SDGs.
- Skewed agri-food politics and cherry-picking particular SDGs inhibit inclusiveness in bioeconomy promotion.
- Inclusive bioeconomies require strong civil society participation in governance, well-designed production systems and greater attention to cross-border effects.

Bioeconomy and the Sustainable Development Goals

A growing number of governments and other actors have put forth bioeconomy strategies partially encouraged by the Sustainable Development Goals (SDGs). These 17 goals are a core part of the UN 2030 Agenda for Sustainable Development and many of their diverse aims, which range from climate change mitigation to inclusiveness promotion, relate to the bioeconomy.

The bioeconomy encompasses multiple, often new, economic sectors based on renewable biomass resources. Renewable and biodegradable product alternatives are vital for phasing out fossil fuels and, hence, addressing climate change, marine plastic pollution and other environmental issues. Moreover, bioenergy and bio-products (e.g., bio-plastics, organic fibres) can spur sustainable development. The bioeconomy advances a paradigm of multipurpose agriculture and biomass-based 'value webs', where multiple value-chains have synergies and meet the demands of various downstream markets (Bastos Lima 2018; Scheiterle et al. 2018).

However, sustainability benefits cannot be taken for granted (Dietz et al. 2018). Without sufficient attention to social and ecological concerns, bioeconomic development could also undermine the SDGs. Biodiversity loss, land-use change issues and the longstanding food vs fuel debate illustrate the complexity of promoting sustainability within the bioeconomy. As with other sustainability transitions, this is also a political process and multiple stakeholders and interests shape the agenda. Therefore, it is fundamental to examine how emerging bioeconomies are governed.

We here identify five lessons relating to the governance of bioeconomies based on our research on agri-food politics and the SDGs in South America. We focus particularly on inclusiveness, which underpins the 2030 Agenda's overarching principle to 'leave no one behind'. As the bioecon-

omy is largely built on agriculture, it falls within the realm of agri-food governance — a hotly contested policy area. Understanding the politics of SDGs in this area is critical because it may have a strong influence on the direction of bioeconomy promotion.

We have examined three South American countries: Brazil, Paraguay, and Uruguay. These countries share important regional features and trends in agri-food governance, but there are also significant differences in their political institutions and domestic contexts (see Table 1).

Table 1. Key socio-economic and political indicators of Brazil, Paraguay, and

Oruguay			
	Brazil	Paraguay	Uruguay
Population in 2020 a	213 million	7.1 million	3.4 million
GDP per capita in 2019 (in USD) ^b	8,717.2	5,414.8	16,190.1
Income inequality (Gini coefficient) in 2017 °	53.3	48.8	39.5
Level of democracy in 2019 (0-10) d	6.86 (52 nd)	6.24 (70 th)	8.38 (15 th)
Corruption perceptions index in 2019 °	35 (106 th)	28 (137 th)	71 (21 st)

^a Worldometers 2020; ^b World Bank 2019; ^c World Bank 2017; ^d The Economist 2020; ^e Transparency International 2020.

Five lessons from South America

1. Cherry-picking preferred elements risks compromising inclusiveness.

Research on the 2030 Agenda shows that it is not the wholesale rejection of the SDGs that poses a critical risk to inclusiveness but the cherry-picking of particular goals and targets. With 169 targets, the SDGs constitute a broad policy agenda that encompasses multiple visions and priorities, including on agri-food governance. Working towards reconciling them is crucial as the Agenda is intended to be 'indivisible' (UN General Assembly, 2015, para. 55).

Yet our findings show that, in Brazil and Paraguay, both governments and agribusiness pick particular goals (e.g., SDG 8 – Decent Work and Economic Growth) or targets within goals (e.g., 2.1 – End hunger) to work towards, and overlook most of the others. Then, through a form of metonymy (i.e., taking one part to represent the whole), they pursue their preferred elements of the 2030 Agenda while giving the impression of adhering to it in its entirety. This is particularly problematic if it is precisely the goals and targets that deal with inclusiveness more explicitly that are neglected, or if the cherry-picking favours the interests of dominant actors.

Likewise, cherry-picking elements linked to the bioeconomy (e.g., emissions reductions) while disregarding others (e.g., biodiversity, social equity) risks compromising inclusiveness and sustainability potentials. Akin to the 2030 Agenda, one may regard also a sustainable bioeconomy agenda as indivisible in its ecological, economic and social goals.

Bioeconomy governance recommendations:

- → Examine ongoing bioeconomy governance processes (which goals or issues receive priority and which ones risk being overlooked?) and address imbalances.
- → Explicitly aim for inclusiveness in bioeconomy promotion strategies, as cherry-picking may otherwise compromise it.

2. There is no tabula *rasa*: pre-existing governance settings influence the level of inclusiveness.

Neither the implementation of the SDGs nor bioeconomy promotion have the luxury of a fresh start or a clean slate (a tabula rasa) to work with. For one, agri-food governance already has institutional configurations including rules, norms, and decision-making mechanisms in place. Power relations and unequal capabilities also ensure the starting point of those agendas is far from a level playing field. It is crucial to be mindful of these initial inequities and imbalances when implementing the SDGs or designing bioeconomy policies.

Ensuring that different perspectives are taken into account is, therefore, a critical step towards greater inclusiveness, particularly when there are divergent points of view on a topic – as is often the case in agri-food governance.

Among the three countries we examined, only Uruguay systematically provided channels for the inclusion of different perspectives (e.g., consultations and workshops, even at the sub-national level, as well as coordination with existing institutions that have a formal representation of non-state actors). Brazil previously did so through an inclusive multi-stakeholder commission, which the Bolsonaro administration abolished in 2019. Meanwhile, in Paraguay, there is little specific information regarding the involvement of non-state actors except in relation to cooperation between the government and agribusiness on SDG implementation.

Bioeconomy governance recommendations:

- → Ensure both the economic and political inclusion of different actors. Explicitly ensure that diverse perspectives are taken into account when setting policy directions, deciding budgets, and implementing policies or projects.
- → Create policy instruments of *redress*, i.e., measures that correct pre-existing forms of exclusion, in-line with the 2030 Agenda's determination to "reach the furthest behind first" (UN General Assembly, 2015, p. 3).

3. The capacity and inclusion of civil society organizations are key to bringing a diversity of perspectives onto the agenda.

The capacity of civil society organizations and their participation in governance are critical to inclusiveness. These actors play an important role in holding governments to account for their international commitments. They can also provide additional — sometimes contrasting — information beyond official reports, and draw attention to marginalised or divergent perspectives.

For instance, our assessment found important differences between Brazilian and Paraguayan civil society organizations regarding agri-food governance and the SDGs. Thanks in part to longstanding global concerns about the Amazon, Brazilian organizations enjoy greater access to international networks and funding, and have more experience collaborating with international partners. To many of them, the SDGs have become a helpful framework — a globally recognised common language — to expose and challenge the government's deteriorating sustainability agenda. In contrast, the Paraguayan case showed that, without the experience of successful international collaboration using international frameworks for domestic purposes, there is a much higher risk that civil society organisations will feel alienated by international frameworks like the SDGs.

Bioeconomy governance recommendations:

- → Focus on the capacity enhancement of civil society organisations to strengthen public accountability and prevent the elite capture of bioeconomy agendas.
- → Strengthen international civil society networks, and ensure existing levels of cooperation are maintained even under hostile political environments.

4. Transformative change may be possible, but there is also a risk of legitimizing the status quo and entrenching marginalisation.

The bioeconomy holds the potential to promote transformative change, that is, structural change that addresses not only the effects but also the causes of exclusion, poverty, inequality, and environmental destruction (UNRISD 2016). However, if governance fails to be inclusive, there is a high risk of legitimising the status quo. Of even more concern, if existing patterns of exclusion are reproduced, marginalisation becomes further entrenched.

Claiming they are pursuing the SDGs, like seeking a bioeconomy transition, confers legitimacy to actors and their actions become more authoritative than before. They may also appear worthier of attention, investments and political support, and their strategies or preferred courses suddenly find further justification.

Our research demonstrates how international frameworks such as these may be vulnerable to elite capture, be for all practical purposes emptied of their inclusiveness principle, and serve to legitimise powerful interests. In Brazil, for example, agricultural commodity traders occasionally use

SDG 2 (Zero Hunger) to strategically buttress the expansion of conventional monocultures while replicating entrenched forms of social exclusion and environmental degradation.

Bioeconomy governance recommendations:

- → Design bioeconomy value-chains or biomass-based value-webs that equitably include previously disadvantaged actors, such as smallholder farmers.
- → Use the bioeconomy as an opportunity to respond to calls for more biodiverse and sustainable agricultural systems and move away from business as usual.

5. International commodity chains require greater attention to "telecoupling"

Global interconnectedness makes agri-food governance more challenging. Policy decisions and their impacts are increasingly "telecoupled," i.e., connected through long-distance relationships due to material, capital, and information flows (Liu et al. 2018).

As agri-food systems become increasingly transnational, a focus on SDG implementation within single countries has clear limitations. It may be very difficult for producer countries to make significant advances alone, without coordinating with their commercial partners. South America, for example, has become a protein breadbasket for the world while countries in Asia and Europe have significantly relied on its expanding soy cultivation and exports.

The SDG and bioeconomy agendas do not consider telecoupling sufficiently. Paraguay's economy, for instance, is so heavily dependent on soy exports that there is little the country can do to transform its agriculture on its own. Conversely, some countries, for example those consuming commodities produced at the expense of deforestation in Brazil, are arguably co-responsible for making agri-food systems more sustainable. However, our research shows that, to date, such international coordination for SDG implementation in South America's agriculture remains scarce.

As bioeconomy agendas gain ground and increasingly enter international agri-food systems, telecoupling will likely require even more attention. It is important to understand what implications the increasing use of biomass or cropuse change in one country may have beyond its borders. Furthermore, the achievement of SDGs through bioeconomy promotion may benefit from being thought out not only domestically but also abroad. Failing to consider global interconnections could easily create negative impacts.

Bioeconomy governance recommendations:

- → Embrace a systems approach to agri-food sustainability and advance collaboration between agricultural commodity-producing and consuming countries.
- → Explore SDG 17 (Partnerships for the Goals) both in the context of the bioeconomy and generally as a way for countries and international actors to pursue the goals across borders.

Outlook: Strengthening inclusiveness in the bioeconomy

To ensure the bioeconomy leaves no one behind, economic and political inclusiveness is key. Governing for more inclusive bioeconomies requires knowledge about which institutions, policy instruments, and value-chain (or valueweb) arrangements work best.

Our observations shed some light on this, but it is important to examine additional South American countries and to also compare the findings with other world regions. Lessons from successful – or failed – bioeconomy promotion experiences will be invaluable, as will research into which political and governance dynamics assist the effective pursuit of more inclusive pathways.

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Prepared by Mairon G. Bastos Lima and Karen M. Siegel.

Contact address: Karen Siegel University of Münster Institute of Political Science Scharnhorststr. 100 D-48151 Münster

E-mail: karen.siegel@uni-muenster.de

Phone: +49 251 83-25380

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Center for Development Research (ZEF) Genscherallee 3 | 53113 Bonn | Germany

E-Mail: presse.zef@uni-bonn.de Phone: +49-(0)228 - 73 18 46

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