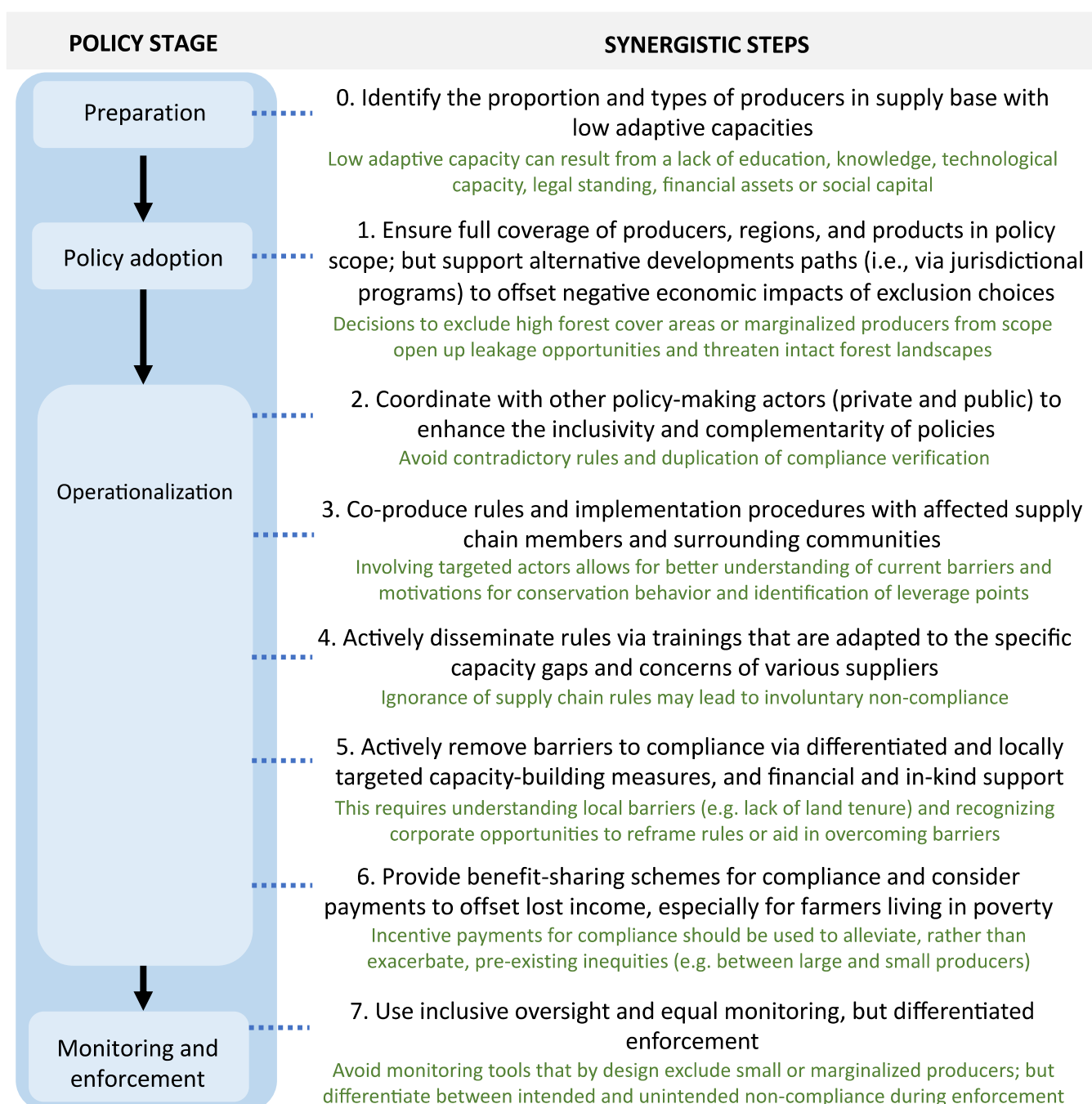


Step-by-step guide for effective and equitable zero-deforestation supply chain policies

In response to the clearing of tropical forests for agricultural expansion, many agri-food companies have promised to eliminate deforestation from their supply chains. Such zero-deforestation supply chain commitments may contribute significantly to ecosystem conservation. However, they **may also generate unintended, inequitable, outcomes** by excluding smallholders and other producers with low capacities to adapt to changing supply chain requirements.

Fortunately, companies can make decisions during supply chain policy design, implementation, and enforcement that allow for **synergies between effectiveness** (in ecosystem conservation) **and equity** (in allowing all types of producers to access sustainable supply chains). These decisions are summarized in the following diagram.



Best-practice examples of synergistic steps toward effective and equitable supply chain policies

A review of the dominant approaches in zero-deforestation policy implementation in the palm oil, beef cattle, soy, and cocoa sectors reveals much room for improvement, but also numerous examples of best practices toward balancing effectiveness and equity when rolling out programs. These include:

<p style="text-align: center;">Palm oil zero-deforestation commitments</p> <p>By disseminating rules & removing barriers (steps 4 & 5), palm oil companies include and assist smallholders rather than exclude them.</p> <p>Companies such as Wilmar and Musim Mas have dedicated substantial resources toward widespread rule dissemination and the removal of barriers to compliance (steps 4 and 5). For instance, Wilmar’s training program on compliance with the public Indonesian Palm Oil Standard reached 8,670 independent smallholders out of 18,100 farmers that directly supply their mills (Wilmar, 2020). Lessons learned on scaling outreach efforts – such as train-the-trainer programs – are now also increasingly used to sensitize smallholder farmers on no-deforestation criteria and rules directly. Further, select farmers are aided in getting land titles and other types of legal alignment (step 5), albeit still on a pilot project level.</p>	<p style="text-align: center;">Cattle Agreements</p> <p>By coordinating with other policy-making actors (step 2), cattle companies create a clear set of rules for farmers and companies to follow.</p> <p>In Brazil, efforts to decrease cattle-driven deforestation resulted in the G4 Cattle Agreement and the Termos de Ajustamento de Conduta (TAC) Agreements, the latter signed between slaughterhouses and the public prosecutor. Until recently, the monitoring systems employed differed substantially between TAC and G4. However, in 2020 a unified monitoring protocol was achieved through a process involving companies, MPF & NGOs (step 2) (MPF, 2020). This protocol will allow the MPF to produce public audits whose results are comparable, rank companies based on compliance to the agreement and establish clear guidelines for non-compliant farmers to regain compliance.</p>
<p style="text-align: center;">Soy Moratorium</p> <p>By aligning their rules with existing legal processes (steps 2 and 5), soy companies ensured policy complementarity.</p> <p>The Soy Moratorium is a collective agreement of soy processors to not source soy from areas in the Brazilian Amazon deforested after 2008. It tends to prioritize effectiveness over equity in design, operationalization, and monitoring, but it shows equity-mitigating effects in that monitoring and enforcement systems are aligned with existing legal processes already underway in Brazil (steps 2 and 5), including property boundary registration in Brazil’s Environmental Property Cadaster (Cadastro Ambiental Rural – CAR) and near-real time deforestation monitoring (INPE, 2020). This lowered the cost of policy implementation and ensured consistency with monitoring of public policy.</p>	<p style="text-align: center;">Cocoa and Forests Initiative</p> <p>By piloting community co-production (step 3) and payments for compliance (step 6), cocoa companies support smallholder transformations.</p> <p>The Cocoa and Forests Initiative was launched in 2017 as a highly ambitious, sector-wide, public-private partnership that aimed to tackle the problem of commodity-driven deforestation in a holistic fashion. In a step-wise, multi-stakeholder approach, actors moved from statements of intent to joint action frameworks and implementation plans, which ensured a strong coordination between public and private actors (step 2). Although cocoa farmers were not strongly involved in policy development, some companies organized consultations in cocoa communities on the implementation of the framework (step 3). Furthermore, positive incentive-setting for conservation (step 6) was also integrated, as companies promoted payments for ecosystem services to protect and restore forested areas. However, such schemes are still at a small scale.</p>

References and contact

For the full academic article, see:

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<https://epl.ethz.ch/>; <https://zerodeforestationimpacts.com/>

Please contact us to share feedback and/or if you are interested in collaborating with us:

- Rachael Garrett, Chair of Environmental Policy, ETH Zurich: Rachael.garrett@gess.ethz.ch
- Janina Grabs, Asst. Prof. of Business and Society, ESADE Business School: Janina.grabs@esade.edu

References used:

INPE. (2020). *Projeto PRODES: Monitoramento Da Floresta Amazônica Brasileira Por Satélite*. Instituto Nacional de Pesquisas Espaciais. www.obt.inpe.br/prodes

MPF. (2020). *Protocolo De Monitoramento De Fornecedores De Gado Da Amazônia*. Ministério Público Federal.

Musim Mas. (2021, February 3). *Key Lessons from Indonesia's Largest Palm Oil Independent Smallholders Project*.

<https://www.youtube.com/watch?v=JQFB15f7hs0>

Wilmar. (2020). *Sustainability Report 2019—Sustainable Sourcing*. Wilmar International. https://www.wilmar-international.com/docs/default-source/default-document-library/sustainability/resource/wilmar-sustainability-reports/wilmar-sustainability-report-2019.pdf?sfvrsn=f801a895_2