The SEI Initiative on Producer to Consumer Sustainability

Global trade has grown at an unprecedented pace in the last two decades, while supply chains have also become increasingly long and complex. This, coupled with rising demand for natural resources, has major implications for the sustainability of development.

Making trade more sustainable requires delving into complex production-to-consumption systems (PCSs) that include a wide range of materials, activities, technologies, actors and institutions involved in producing, processing, transporting, and marketing commodities and their derivative products. This document describes the new SEI Initiative on Producer to Consumer Sustainability, which aims to shed light on those systems as well as their indirect effects on other supply chains and development trajectories and thus help build a more sustainable international trade system.

Consumers, governments, and businesses large and small engaged in international trade are increasingly being held responsible for developments along the supply chains that they benefit from; they are also increasingly willing to change their behaviours or policies to address the mounting sustainability challenges. They may aim not only to limit negative impacts but to realize the many benefits that can be achieved by changes to the global trade system, not least more secure supplies of goods and services. But knowing how to do this is not always easy.

Many new methods have appeared in recent years to help quantify and address the dispersed impacts of consumption and trade in international commodities. For example, ecological footprinting, which was virtually unknown 20 years ago, is now a familiar concept in both policy and consumer circles. Myriad certification and labelling schemes have been set up. And underpinning these developments, associations of producers, retailers, consumer organizations and others have come together to identify and demand more responsible practices, and to set ambitious targets for reducing impacts on natural systems.1

Despite the advances, enormous gaps remain between research and action. A new generation of tools and approaches is needed to meet the challenges of defining and delivering a more sustainable global trade system, and finding ways to realize the sustainability commitments and ambitions of a range of actors in the private and public sectors.

P2CS: A platform for research and action on sustainable trade

The SEI Initiative on Producer to Consumer Sustainability (P2CS) takes a holistic and systems-based approach to furthering our understanding how PCSs work and identifying opportunities for a more sustainable trade system. This approach links two key strands of work: innovative modelling to improve the transparency of supply chains, including how producers and consumers are linked and the participation of different actors in determining supply chain dynamics (Box 1, Figures 1-3); and multidisciplinary analysis of the governance of production, trade and consumption processes, and the roles and perspectives of different stakeholders (Box 2, Figure 4). By bringing these together, we hope to provoke new thinking about both the dynamics of supply chains today and how they can be re-imagined for a more sustainable world.

P2CS will draw on a broad spectrum of SEI competencies as well as working with partners in research, civil society, the private sector, and government to:

1. Identify the diverse actors who benefit, to varying degrees, from their participation in a given PCS, along with their responsibilities, liabilities, and exposure to risk, and their capabilities to minimize negative social and environmental impacts and secure sustainability gains;
2. Develop a new generation of footprint accounting tools that can trace commodities from specific locations of production to specific groups of consumers, and shed light on the interdependencies, impacts, and benefits of different groups of actors within a given PCS;
3. Analyse the sustainability challenges and opportunities associated with a given PCS, taking into account the context of the global trade system, including interacting agendas of foreign investment, development cooperation, and climate change adaptation and mitigation; and
4. Identify new opportunities to leverage improvements in sustainability in a given PCS.

In the first phase of the P2CS initiative (2015–2016) these advances, and the key value proposition of the initiative – to link...
Environmental footprint accounts have become central to efforts to quantify the global impacts of consumption. Traditionally, they have focused on attributing impacts to final consumers in a given country. However, standard environmental footprint accounts have limited utility for decision-makers trying to improve the sustainability of international trade. They are invariably very crude, depending largely on country-level production-consumption data and aggregated proxies of environmental and social impacts that are often difficult to link to observed changes in any specific area of production. Unless a footprint can be related to the local conditions where the commodity was actually produced, it may be meaningless. For example, the amount of water embedded in a tonne of imported beef is of much greater concern if the beef was produced in a region where water is scarce than in one where it is relatively abundant.

A central element of P2CS is developing the next generation of footprint accounting. This work aims to take footprints beyond awareness-raising to become practical guides for policy development. Next-generation footprints will incorporate four major advances:

i. Enhanced spatial resolution, linking given sets of consumers to the specific areas of production, accounting for sub-national heterogeneity in socio-environmental conditions, management practices, actors and governance;

ii. Explicit accounting of socio-economic benefits associated with environmental impacts;

iii. Improved attributional clarity, attributing responsibility for impacts among the various actors that obtain benefits along a supply chain, including final consumers, producers, processors and transporters;

iv. Consideration of indirect impacts, such as waste and indirect land-use change.

This work will be supported by the integration of two SEI tools: SEI-PCS, which can trace commodities from a specific production site (e.g. a municipality) to the first consumer; and IOTA, which can trace commodities from the producer country to the country of final consumption, even through several stages of processing.

Box 1: Next-generation footprint accounting

work on the transparency and traceability of supply chains with innovations in governance – will be developed through work on pilot PCSs. Building on established partnerships and a strong body of existing work, these pilots will focus on the production of beef and soy in Brazil and oil palm in South East Asia for European markets – casting an altogether new spotlight on three of the world’s most economically significant agricultural commodities and regions of production and consumption.

P2CS aims to be much more than just another research project. Instead, it seeks to provide a broad intellectual framework that helps connect and share experiences across diverse initiatives.
Huge uncertainty remains over processes to achieve greater sustainability in supply chains. A core aim of P2CS is to deepen understanding of current governance arrangements and explore opportunities for positive change.

First, we will appraise the adequacy of existing risk-management commitments and governance approaches – such as legal compliance measures, voluntary standards, trade barriers, and consumer labelling – for tackling sustainability challenges in PCSs. This will include studying how far existing systems can incorporate and act on information from impact assessments; mediate conflicts of interest and opportunities for concerted action, innovation, and hybrid governance arrangements among different actors; and take into account the varying levels of ownership and influence among the actors involved in a given PCS.

Second, we will use the results of our PCS modelling work (see Box 1) to analyse how different levels of participation and engagement can be attributed among the multiple actors involved in a given PCS (e.g. oil palm production in Southeast Asia; see Figure 4). This will use a participatory process of co-inquiry to identify and map the perceived roles of stakeholders in private, public, and civil society sectors with respect to (i) their exposure to different risks and liabilities from social and environmental impacts of export-led production and (ii) their rights, responsibilities, capacities, and motivations to influence the adoption of more sustainable production and consumption practices and supply chain management. This work will engage iteratively with our efforts to increase transparency over how commodity PCSs operate and help realign and improve the utility of trade-flow models.

Third, we will help identify and foster the development of supply-chain governance mechanisms. This will address: how existing governance mechanisms may fall short of delivering the aspirational targets being set out; what mix of new and existing mechanisms could improve the chances of achieving those targets; and where bottlenecks exist in decision-making, which actors are most capable of making the needed changes, and what unintended consequences could ensue without appropriate safeguards in place.

Box 2: Opportunities to reshape supply chain governance

Huge uncertainty remains over processes to achieve greater sustainability in supply chains. A core aim of P2CS is to deepen understanding of current governance arrangements and explore opportunities for positive change.

First, we will appraise the adequacy of existing risk-management commitments and governance approaches – such as legal compliance measures, voluntary standards, trade barriers, and consumer labelling – for tackling sustainability challenges in PCSs. This will include studying how far existing systems can incorporate and act on information from impact assessments; mediate conflicts of interest and opportunities for concerted action, innovation, and hybrid governance arrangements among different actors; and take into account the varying levels of ownership and influence among the actors involved in a given PCS.

Second, we will use the results of our PCS modelling work (see Box 1) to analyse how different levels of participation and engagement can be attributed among the multiple actors involved in a given PCS (e.g. oil palm production in Southeast Asia; see Figure 4). This will use a participatory process of co-inquiry to identify and map the perceived roles of stakeholders in private, public, and civil society sectors with respect to (i) their exposure to different risks and liabilities from social and environmental impacts of export-led production and (ii) their rights, responsibilities, capacities, and motivations to influence the adoption of more sustainable production and consumption practices and supply chain management. This work will engage iteratively with our efforts to increase transparency over how commodity PCSs operate and help realign and improve the utility of trade-flow models.

Third, we will help identify and foster the development of supply-chain governance mechanisms. This will address: how existing governance mechanisms may fall short of delivering the aspirational targets being set out; what mix of new and existing mechanisms could improve the chances of achieving those targets; and where bottlenecks exist in decision-making, which actors are most capable of making the needed changes, and what unintended consequences could ensue without appropriate safeguards in place.

Moreover, in line with SEI’s long heritage of convening diverse actors around critical issues, a core objective of P2CS is to build a multi-stakeholder platform to facilitate learning across the research, policy and practice communities, engaged with international trade. This will help to inform and intensify the dialogue among those who can make a positive difference to the sustainability of international trade, while also serving as a sounding board for the strategic orientation of P2CS, helping to keep our work as relevant and useful as possible to key stakeholders.

Building on well-established SEI competencies

P2CS benefits from a range of SEI assets and experience:

- Cutting-edge global trade analysis tools: SEI-PCS (Spatially Explicit Information on Production to Consumption Systems), the Input-Output Trade Analysis (IOTA) model, and the Resources and Energy Analysis Programme (REAP);
- Expertise in the use and development of supply chain analysis and business support tools such as NETPositive® and corporate environmental management systems;
- Field experience and established connections with major commodity supply chains in the developing world, with a strong focus on participatory exploration of impacts on more vulnerable communities such as smallholder farmers,
and how such concerns relate to community rights and the accountability of governments and corporate actors; and
• Proven partnerships with public-sector authorities and leading private-sector and civil society stakeholders involved in international trade and sustainability.

Funding
The work outlined here is planned for the first two years of the P2CS Initiative, which are supported by core funding from the Swedish International Development Cooperation Agency (Sida). However, SEI and its partners are actively seeking access to other external funding and strategic partnerships for activities during and beyond this period.

Endnotes
1 E.g. the 2014 UN Declaration on Forests; the Tropical Forest Alliance 2020 (http://www.tfa2020.com); the Consumer Goods Forum (http://www.thecongsumergoodsforum.com).
3 See http://www.sei-international.org/sei-pcs
4 See http://www.sei-international.org/iota.
6 See http://www.sei-international.org/projects?prid=2155
   http://www.sei-international.org/projects?prid=2034
   http://www.sei-international.org/projects?prid=2087
   http://www.sei-international.org/projects?prid=2027
7 See http://www.sei-international.org/reap.
8 See http://www.net-positive.org.

Figure 4: Multiple perspectives in the production-to-consumption system: diverse views expressed by local stakeholders involved in palm oil production in the Philippines illustrate the many interests that need to be considered in supply chain governance for sustainability. Illustration by Simon Kneebone. Source: Larsen et al. (2014).