

Environmental Dimensions of GVCs:

Towards non-state environmental regulation

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- › What factors might make a particular country or region an attractive site for outsourcing?
 - High quality human resources, technological capacity, etc...

AND

- Low taxes
 - Cheap labour
 - Lax environmental regulations
-

World's Most Polluted Places

1. Norilsk, Russia (metal smelting)
2. Niger River Delta (oil spills)
3. Rio Mantanza-Riachuelo River, Argentina (industrial pollution)
4. Kalimantan, Indonesia (artisanal mining)
5. Kabwe, Zambia (lead smelting)
6. Hazaribagh, Bangladesh (mainly tanneries)
7. Dzerzhinsk, Russia (chemical manufacturing)
8. **Citarum, Indonesia (industrial waste)**
9. Chernobyl, Ukraine (Nuclear radiation)
10. Agbogbloshie, Ghana (recycling of e-waste)



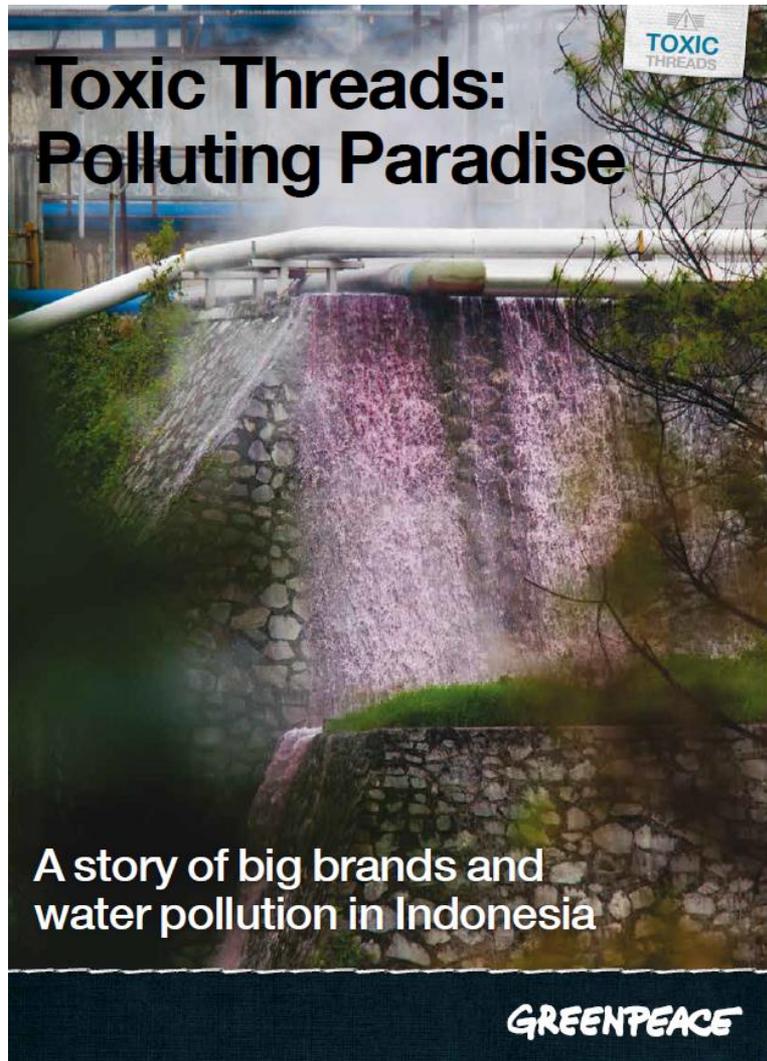
› <http://www.scientificamerican.com/article/10-most-polluted-places-in-the-world/>

Do GVCs outsource pollution?

According to Greenpeace, Yes!

- Eg. Indonesian textiles (PT Gistex in West Java), where 60% of manufactured garments are exported to international markets
- Gistex plants were found to have toxic discharges, AND Gistex is a supplier to Gap Inc., Adidas Group, and Marubeni Corporation.

“Regulation of industrial discharges in Indonesia is limited, and there is little enforcement..... no comprehensive mechanism to identify and phase out the use and release of hazardous chemicals..... Transparency is also a problem;no easy access to information for the public on the monitoring of wastewaters.”





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GVCs and environmental responsibility



for a living planet®

AREAS
ASIAN RHINO & ELEPHANT
ACTION STRATEGY

Gone in an Instant



HOW THE TRADE IN ILLEGALLY GROWN COFFEE IS DRIVING THE DESTRUCTION OF

Rhino, Tiger and Elephant Habitat

Bukit Barisan Selatan National Park
Sumatra, Indonesia

CRUEL OIL

How Palm Oil Harms Health, Rainforest & Wildlife



Center for Science in the Public Interest



NGO targeting of brands to improve environmental performance of value chains



“Every brand is responsible for ensuring that its global supply chain operations – either directly or indirectly – do not cause the release of hazardous chemicals into the environment. Lacking sufficient oversight of these global supply chains, or claiming ignorance about the hazardous chemicals released by suppliers providing inputs into production processes around the world, are not acceptable excuses.”

From *Toxic Threads: polluting Paradise*

Brand susceptibility drove VSS

- › Corporate boycotts during the 1990s:
 - Campaigns against Nike, The Gap and other branded clothing and footwear companies on account of labour conditions of workers in factories supplying their products,
 - Campaign against Shell following the Brent Spar incident and the death in 1995 of Nigerian social and environmental activist, Ken Saro-Wira.
 - Longstanding 'Baby Milk Action' campaign against Nestle.
- › The coffee crisis: in 2001, the coffee industry was in serious crisis, and prices had fallen by 50 percent over a three-year period to a 30-year low, and in real terms, were at their lowest levels ever!
 - *Bitter Coffee: How the Poor are Paying for the Slump in Coffee Prices* (Oxfam, 2001)
 - *Robbing Coffee's Cradle* (Oxfam, 2001)
 - *Mugged: Poverty in Your Coffee Cup* (Oxfam, 2002)
 - *Stolen Fruit: The Tropical Commodities Disaster* (Zed Books, 2003)



The rise of Voluntary Sustainability Standards (VSS)

- › Organic coffee imported from Mexico to USA in 1982 (first Organic standard The Organic standard 1967)
- › Launching of 'fair trade' coffee by the Max Havelaar Foundation of the Netherlands in 1988
- › The Rainforest Alliance (first certified in 1992) and UTZ Certified (2002)
- › Generally, these were NGO-driven initiatives were initially presented to consumers as trade alternatives to the mainstream.
- › Eurepgap (1997) and later GlobalGAP (2002) reflected a convergence of sustainability and food safety (HACCP) that might yet prove problematic – in whose interests are these standards actually created?
- › These standards emerged from limited and mostly niche markets to be embraced by larger corporations as part of their corporate social responsibility agenda

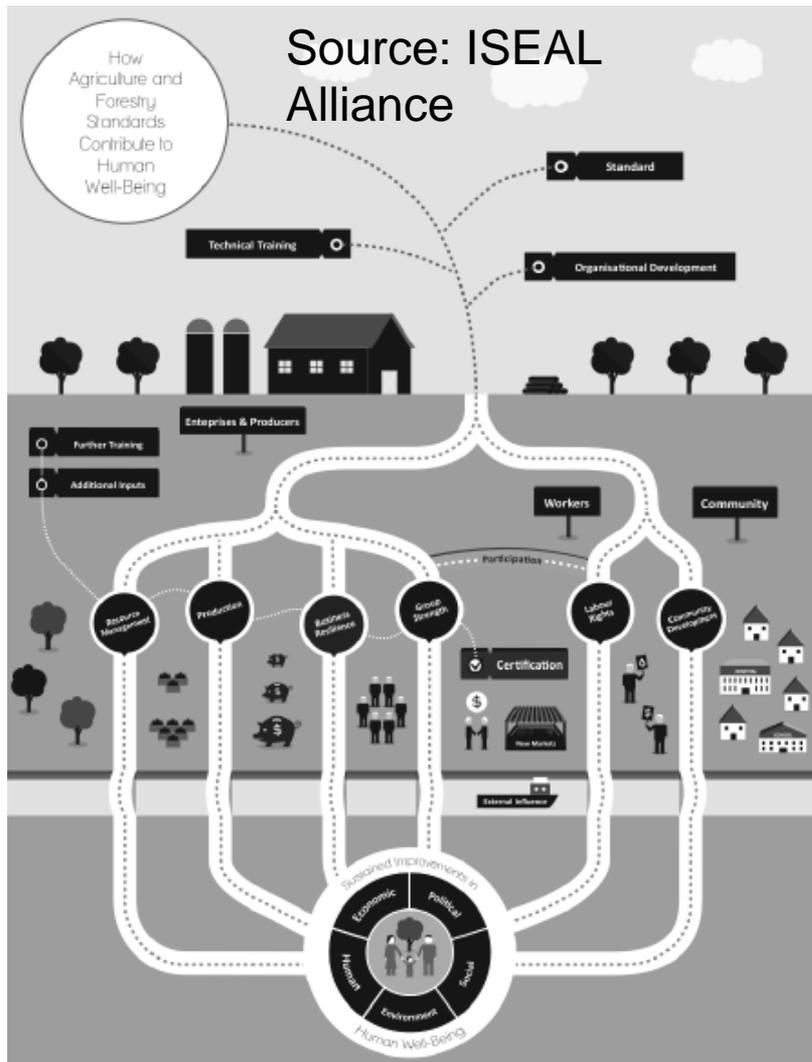


1. What is the impact on farmer livelihoods as a result of being involved in a VSS program?
2. What is the impact on environmental conditions as a result of being involved in a VSS program?

Detailed field research in South Sumatra

Theory of Change for how Standards might improve farmer well-being

Source: ISEAL Alliance



Basic Assumption: Buyers or consumers identify added value in the standard.

Inputs

1. Standard established
2. Farmers trained to the standard
3. Farmer organisations strengthened
4. Farmers audited to the standard

Outputs

1. Improved natural resource management
2. Increased production
3. Better business skills
4. Increased prices
5. Stronger farmer groups
6. Labour rights protected

Outcomes

1. Improved farmer well-being (improved social, natural, physical, financial, and human assets)

Research Method	Timing
1. Randomised Control Trial (RCT) of 4C to RA/SAN	Baseline study 2015. Midline in 2017 Proposed endline in 2019.
2. Propensity Score Matching (PSM) / Diff-in-diff of 4C against non-certified	Baseline study in 2015. Midline in 2017 Proposed endline in 2019.
3. Village Based Case Studies (3)	Village case studies were conducted in South Sumatra and Lampung during 2015 and 2016.
4. Survey of farmer perceptions of sustainability programs	Collection of background data on existing programs across Lampung and South Sumatra in 2015 and 2016
5. Change in environmental indicators – soil study	Field sites were sampled throughout 2017 based on RCT design.

What is a Randomised Control Trial (RCT)

- › Increasingly popular approach in quantitative social science research is to randomize the treatment to establish suitable counterfactual (or control) groups.
 - Randomization helps to ensure that treatment assignment is unrelated to other characteristics that might influence outcomes.

- › No prior quantitative work on VSS leveraging randomization to establish a counterfactual

- › OUR STUDY IS A GLOBAL FIRST!

Baseline Sample: 4C and non-4C Farmers

**60 farmer groups, already 4C
certified and working with buyer**

979 farm surveys across 60 farmer groups
completed in September 2015

**30 farmer groups,
not connected to
buyer or 4C**

609 farm surveys from
30 farmer groups
completed in September
2015

Allocation to Treatment Samples

**30 farmer
groups, to be
upgraded to
RFA**

**30 farmer
groups, to
remain with
4C**

**30 farmer groups,
not connected to
buyer**

30 farmer groups to be 'upgraded' to 4C
were randomly selected by the research
team and **NOT THE BUYER**

Quantitative Study 1 (4C vs non-4C):

- › We see positive overall impacts of the intervention, yet at the same time not through the channel we expected (coffee farming operation), which if anything, receives less attention.
- › One way to rationalize these findings is that the intervention brings increased security, and returns to quality, for the main cash crop in the region. This allows households to take on additional non-coffee work in agriculture, where they can earn a larger income.
- › Hence it may be that the export supply chain access did more to impact outcomes than the training and auditing activities. Or perhaps farmers learn to make more efficient use of their time on the farm, which improves efficiency by saving time, even without improving yields?
- › It is also still somewhat puzzling that we see less satisfaction with the sales channel, and overall lower subjective well-being.

Key Qualitative Findings 1 – Poverty Alleviation Pathways and Livelihoods

- › “Theories of Change” for sustainability programs tend to assume a poverty alleviation pathway linked to agricultural modernisation and Good Agricultural Practices (GAP)
- › However, livelihood strategies in Semendo are oriented towards low-input, labour-saving systems (swidden-type)
- › VSS programs do not appear to positively impact upon poverty alleviation in some Indonesian coffee communities.



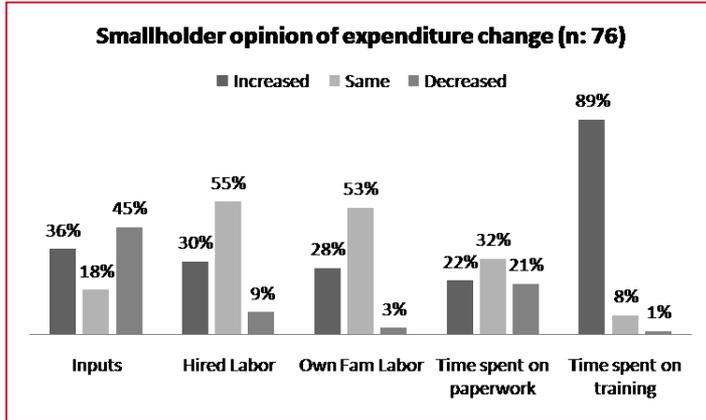
Petty trade as a key poverty alleviation pathway in Semendo

- › VSS programs are not rolled out over a blank canvas – they interact and reshape pre-existing institutional configurations and social networks,
- › VSS are differentially incorporated within different corporate strategies of lead firms,
- › VSS can interact with formal government programs in complementary or antagonistic ways,
- › VSS interact with (and sometimes disrupt) pre-existing trade networks in ways that can be either positive or negative,
- › Consideration of the broader institutional environment and social networks within a region can help to increase the effectiveness and impact of VSS.



Who bears the costs of certification?

Practice Change



Auditors



Administration and traceability

Inefficient Cooperatives





VSS does offer service delivery?



- › VSS are a response to GVCs where both production systems and environmental regulation have become “globalised”
- › The need to present clear signals to consumers through VSS tends to result in a simplification of the sustainability challenges being faced in producer regions
- › VSS were developed primarily as a tool to appease consumers and questions are now being asked about the impacts on supply communities and landscapes
- › Impacts research is required at various scales: households, communities and landscapes and throughout the value chain.
- › What kinds of research questions do you think are needed?