



Balancing Sustainable Development and Trade Liberalization

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Scholars, politicians, and activists debate how trade liberalization – removing restrictions on trade between countries – impacts the environment. One school of thought anticipates lower impact through increased efficiency and the spread of environmental standards. An opposing approach raises concerns about increased production leading to more resource use and waste. Evidence suggests each outcome may occur under certain conditions. For truly sustainable economic development, trade policy should account for these conditions. This study examines one stakeholder group's response to trade liberalization.

How Trade Liberalization Affected South Indian Fisheries

During 2008-2009, the U.S. government complied with a World Trade Organization ruling by decreasing import duties on Indian shrimp. As a result, South Indian fishermen gained greater market access, thereby increasing demand for Indian shrimp exports, which soon overtook other major exporters to the United States. On average, fishermen responded by investing in larger mechanized fishing vessels that remove more fish from the sea. This increased fishing effort was more prevalent in districts with greater access to information through mobile phones. At the highest observed level of mobile phone access (about 92% of households in a community), simulations show that mechanized fleets in Kerala state increase by 591%, while non-motorized artisanal fleets decline by 89%.

In other words, market information gave some fishermen an opportunity to benefit from trade liberalization by shifting to higher capacity fishing vessels. However, in the process, they placed greater pressure on ocean fisheries, both directly and in bycatch – fish that are unintentionally caught with target species. Shrimp (the targeted species) were sufficiently abundant to withstand additional harvest. Other species groups would benefit from the removal of predators as well. However, fishery simulations show that the additional fishing over time could result in devastation for bycatch species such as sharks, skates, and rays, and near extinction for some sea floor organisms.

At first glance, these results suggest that market access and digital information lead to a direct tradeoff between fishing livelihoods and marine ecosystems. However, additional simulations show opportunities for protecting both marine species and livelihoods. The profits from increased fish exports can be reinvested in bycatch reduction devices that would allow fishermen to continue capturing profits while avoiding harmful bycatch.

The South Indian fishing context is unique, and the results cannot necessarily inform policy in other places. However, this example does provide lessons about factors that policy makers should consider when developing international trade policy.

Economic Development Through Trade Requires Information

Those who possess technological resources are most able to benefit from increased market access. Information access must be considered in order to ensure that market access has economic development impacts for those most in need.

In addition, other studies show that the resulting information may lead to reduced wastage by increasing the proportion of harvested fish that can be sold. However, there is no reason to believe that increased sales would lead fishermen to catch less if they are trying to maximize overall profits.

Fair Trade Policy with Environmental Measures

Given incentives for increased resource use, sustainable economic development requires reinvesting profits into environmental management. Repeated studies show that people will prioritize food security and economic survival over resource protection. However, once incomes rise beyond a sustenance level, they are often willing to consider longer-term livelihood sustainability.

In addition to environmental impacts, uneven environmental policy can limit economic benefits of trade liberalization. Weak environmental regulations allow one participant to produce at an artificially lower cost and take advantage of market openness. Instead, policy harmonization (as in the European Union) ensures that producer advantages come from other factors such as indigenous natural resources or local innovation, rather than destructive processes. Such efforts have been incorporated into agreements such as the US-Peru Trade Promotion Agreement, which requires that both sides maintain environmental rules in order to continue receiving trade benefits.

However, in that case, the agreement was used as a pretext by the Peruvian government to remove indigenous people from forested lands. In addition, the environmental requirements are only enforced when the other party brings a claim regarding environmental violations. And neither side may have an incentive to bring claims due to the resulting increase in consumer prices. Instead, any environmental measures must be beneficial to all participating governments in order for them to implement the rules.

Consider Stakeholder Interests and Incentives

Negotiate with stakeholders, not just governments, to understand how they are likely to respond to market shifts, and also to identify other technological interventions that would help them sustain the livelihood benefits. It is crucial for trade agreements to draw on local understandings of stakeholder interests. This process is necessary in order to avoid unintended consequences of economic development. Furthermore, repeated studies show that people are more willing to follow rules when they participate in designing them. Therefore, win-win trade solutions require community participation rather than top-down mandates.

Read more in Mark Axelrod, Brian Roth, Daniel B. Kramer, Shyam S. Salim, Julia M. Novak, TV Sathianandan, and Somy Kuriakose, "Cascading Globalization and Local Response: Indian Fishers' Response to Export Market Liberalization," *The Journal of Environment & Development*, 24, no. 3 (2015): 315 - 344.