

Bottom-up greenness powered by top-down incentives

This approach will spur businesses to switch to green practices in an autopilot mode. **BY DUAN JIN-CHUAN**

DISAPPEARING forests, melting glaciers, and frequent extreme weather all signal to us that the planet Earth is stressed. Today, many primary school students can recite the looming environmental crisis in one form or another. In the business world and policy circle, the term ESG (Environmental, Social, and Corporate Governance) has also become a new cliché.

Massive educational efforts and political movements have helped achieve a remarkable level of green awareness. Those who haven't been persuaded thus far are unlikely to budge though, and political forces resisting changes are still expected to mount opposition. From this observer's vantage point, the efforts to go green have reached the stage of diminishing marginal returns, using an economist's jargon; simply put, continuing the current path won't be cost-effective.

Cost-effective solutions rest in figuring out implementable ways to internalise the negative externalities (ie, environmental degradation) generated in our current systems of producing goods and services. I see bottom-up greenness (BuG) as a promising way of addressing the issue. Let me use palm oil supply chains and a pilot project soon to be undertaken by the Asian Institute of Digital Finance and its partners (a bank, a non-governmental organisation, and two fintech companies) to explain this new pathway.

A sketch of a palm oil supply chain helps the discussion. Smallholder (or larger) growers send oil seeds to mills, and the mills produce crude palm oil and kernels that go downstream to refineries and manufacturers of palm oil's derivative products. Many palm oil companies are vertically integrated with operations occupying different segments of the supply chain.

Staying cost-competitive is vital to business success and generating good returns is expected by shareholders. So, palm oil companies are no exceptions. In short, internalising negative externalities is fundamentally at odds with the ingrained incentive structure of any business unless green practices constitute a cost-competitive option. The BuG approach, as the name suggests, starts at the bottom and works its way up in an incentive-compatible manner.

COMBAT GREENWASHING

Greenwashing refers to the act of providing misleading information to create a false impression of sustainable practices. It will hardly surprise anybody that greenwashing will occur when businesses face intense public pressures. With the added compliance needs, we can expect it to worsen.

Promoting evidence-based greenness metrics is a way to curtail greenwashing, particularly appealing to businesses that prefer to conduct honorable practices. More worrisome is their adoption of suboptimal greenness metrics simply due to the lack of a credible alternative. The unintended consequences on the environment can be huge.

Beyond greenwashing, gaming the system can also be expected. Hence, any evidence-based system needs to have a built-in audit function and a feedback loop to ensure its operational integrity.

Imagine that a representative group of smallholder growers in a defined region, say, Riau in Sumatra, are recruited for Internet-of-Things (IOT) tagging; that is, collecting on a real time basis their fertiliser usages, seedlings deployed, plots located in or outside of environmentally-sensitive zone, etc. These attributes can then serve as a documented basis for determining individual growers' greenness credentials later.

How can we scale up the IOT tagging to a significantly larger population of growers? If greenness credentials are linked to concessional loans, scaling-up should happen automatically through self-motivated acts of borrowers. That is why banks play a critical role in the overall scheme of things.

Today, banks are limited by their ability to assess, using an evidence-based approach, sustainable production practices of potential borrowers even if they want to offer concessional lending to green practitioners. So, banks will welcome the arrival of an evidence-based greenness indicator.



The next time Singapore is shrouded in heavy smog from Sumatra burning to clear rainforests for palm oil plantations, we will be reminded of the fact that patchwork solutions like assisting with firefighting can at best deliver a temporary reprieve. **BT FILE PHOTO**

Banks in the current regulatory environment are busy at work to ensure their loan portfolios are compliant with financial regulations such as MAS' "Guidelines on Environmental Risk Management for Banks" issued in December 2020. For their own compliance purpose, banks should therefore be happy to grant concessional loans and/or to apply lower credit standards to reward documentable green practices.

Financing cost often constitutes a significant part of the total costs of placing final products on, say, grocery store shelves. With concessional loans, the final products can become equally or more price-competitive in the eyes of consumers.

Lack of evidence-based greenness credentials may perversely force banks to adopt suboptimal greenness indicators or to become susceptible to greenwashing. From the standpoint of public interest, a trusted system must engage arm's length credible parties to create the evidence-based greenness measurement.

Many non-governmental organisations (NGOs) have already been contributing to the greenness drive with varying approaches. For example, SPOTT (Sustainability Policy Transparency Toolkit) of the Zoological Society of London supports sustainable commodity production and trade through providing annually updated transparency scores on palm oil companies, among others.

Commercial ESG rating organisations also operate in this space. Typical scoring systems are based on the assessment of company reports and news coverage, offering a bird's eye view of a company in its entirety. Credible NGOs are in my view a more vital part of the equation because they are arm's length parties to supply chains with opinions not influenced by profit motivation.

Notwithstanding the admirable effort by the likes of SPOTT, I view the current approaches, commercial ESG ratings included, limited in applicability due to their lack of aggregability for which I will elaborate later.

Under BuG, an NGO serves the important role of setting the arm's length standard in labelling growers' greenness. The NGO working with a research institute can better incorporate scientific findings on what constitutes effective sustainable production practices.

The collaboration can also help tap into university student bodies to train teams of motivated field inspectors/auditors to conduct the laborious field work of labelling growers' greenness. As a side benefit, these students will likely serve as future champions of green causes to help educate the general population.

The research institute with expertise in modern data analytics can link the greenness label of a grower to his/her attributes collected via IOT. This in turn serves as the scientific basis to assign growers' greenness credentials for a larger population when the IOT system is significantly scaled up.

Interesting to note, a pilot IOT system underpinning BuG has already been put in operation in Indonesia by a participating fintech company. The prospect of lending institutions utilising an evidence-based greenness credential in addition to other credit-relevant attributes to assess agriculture loans looks increasingly realistic by the day.

BOTTOM-UP AGGREGATION ALL THE WAY

At the core, the current approaches to assessing sustainable production practices lack aggregability or divisibility. A palm oil company's mill is, for example, part of a supply chain which may need to be assessed as a standalone unit for financing purposes. Attributing the overall greenness score of a company top-down to a unit is invariably a subjective exercise short of persuasive power. Consistently aggregating bottom-up the greenness scores of individual growers who supply the mill is so much more logically appealing.

Aggregation means that a mill's greenness score can simply be a supply-quantity-weighted average greenness of smallholder and/or larger growers similar to how we view an equity portfolio as a collection of individual stocks and/or ETFs. Aggregation can even go all the way up to beyond a company.

Aggregation on demand provides banks a practical way to offer evidence-based concessional loans to reward any part of a supply chain for adopting sustainable practices. The banks can in return use the concessional loans to meet their own regulatory compliance.

The current green movements lack an effective mechanism to incentivise people and businesses to switch to green practices in an autopilot mode. Overly relying on guilt, shame, bragging rights or window dressing can't produce sustainable and long-lasting impacts that are powerful enough to alter the current course of environmental degradation.

To recap my central idea, we are more likely to attain real sustainability by hardwiring a system in which individuals and corporations strive to better themselves financially but nevertheless yield socially desirable outcomes.

The next time Singapore is shrouded in heavy smog from Sumatra burning to clear rainforests for palm oil plantations, we will be reminded of the fact that patchwork solutions like assisting with firefighting can at best deliver a temporary reprieve. Forest burning is a symptom of an illness that is deeply rooted in the current agriculture commodity supply chains – subsistence survival for smallholder farmers and lucrative financial returns for traders and big corporations. It isn't too late for us to contemplate more effective solutions.

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