IATP'S DUBAI SERIES | COP28



Carbon market design problems await COP28 delegates

This article is part of IATP's Dubai COP28 Series published ahead of the U.N. Framework Convention on Climate Change (UNFCCC) annual Conference of the Parties (COP), this year held in Dubai, United Arab Emirates. The full series can be read <u>here</u>.

The big-picture narratives in the foreground of 28th Conference of the Parties (COP28) of the United Nations Framework Convention on Climate Change (UNFCCC), November 30-December 12 in Dubai, United Arab Emirates (UAE), provide necessary context to the intensively negotiated textual outcomes of COP28. The narrative to be discussed during the first week at COP28 is the Global Stocktake (GST), an inventory of climate change trends and policy action required by the 2015 UNFCCC Paris Agreement. The GST technical synthesis report "provides an assessment of the collective progress" to achieve the Paris Agreement goals, including to reduce greenhouse gas emissions to keep global warming to no more than 1.5°C above a 19th century benchmark. (IATP provided an input to the third GST technical dialogue, one of 137 organizations to do so.) However, many scientific inputs to the report showed that the "collective progress" has not been able to prevent an increase in absolute global emissions. That technical synthesis report will be the basis for a high-level political dialogue at COP28 to decide what to do about this bad news.

One likely result of the high-level dialogue is a statement to support further investments in technology to remove emissions from the atmosphere, rather than advocate policies to prevent absolute emissions increases. Will government and private sector investments in greenhouse gas removal technologies and policies be bolstered by the negotiated outcomes, or will negotiating impasses leave those investments as sunk costs? Here we preview negotiations on two texts, one concerning rules about removing greenhouse gases and the other about guardrails to prevent removal credit misrepresentation and violation of land and human rights in removal project areas. Although access to the negotiating rooms is restricted, the negotiations are not isolated from climate science, geopolitics or fossil fuel investments.

The short, big picture context of the carbon market negotiations

The president of COP28 is also the president of the oil company of the UAE, which will host COP28. <u>He wants</u> the negotiations to focus on reducing greenhouse gas emissions, not on reducing fossil fuel production. He and officials in other oil producing countries, including the United States, are counting on the successful development and widespread deployment of carbon capture and storage (CCS) technologies and landbased emissions offset projects to allow continued oil and gas production for decades.

An Emirati royal family member owns Blue Carbon, which has negotiated preliminary agreements to buy the sole and exclusive rights to develop forest conservation and reforestation emissions offset projects



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in Liberia, Zimbabwe, Tanzania, Zambia and Kenya on land totaling 60 million acres (about 24.5 million hectares), about the land mass of the United Kingdom. A Wall Street Journal analysis of the contract with the Liberian government, dated July 2023, reports Blue Carbon would receive 70% of the share of the proceeds from sales of the offset project credits, with Liberia receiving 30% for the first 10 years of the 30-year contract and then 50% thereafter. A Liberian official cited in the WSJ article said that the government would obtain the consent of the local communities affected by the offset projects and that the deal would be finalized before COP28 starts. Any nongovernmental organization criticism of Blue Carbon deals and/or the Emirati presidency of COP28 is not likely to be tolerated in Dubai. According to Joey Shea of Human Rights Watch, "It is incredibly dangerous for dissidents, even those from outside the UAE, to transit through Dubai because they are subject to the laws of the country, which effectively criminalise freedom of expression, association and assembly."

Cristina Figueres, a former UNFCCC Secretary, said in May that the UAE's CCS-dependent plan for reducing greenhouse gases would endanger the most climate vulnerable countries. CCS, even if technologically successful in storing greenhouse gases for the time required to prevent further global warming, could not be deployed commercially in time and at scale to prevent climate catastrophe. In the U.S., much of the captured carbon dioxide is not permanently stored but instead is injected deep into the ground to enable <u>"enhanced oil recovery."</u>

The UNFCCC Secretariat compiled an <u>"Information</u> <u>Note"</u> for the COP27 negotiations, stating that "Engineering-based removal activities are technologically and economically unproven, especially at scale, and pose unknown environmental and social risks." (p. 18) <u>The carbon removal industry</u> has sought to remove that assessment from COP28 documents and argue the necessity of CCS industry growth to achieve UNFCCC Paris Agreement objectives.

In 2021, <u>the International Energy Agency stated</u> that undertaking new oil, gas and coal production would be incompatible with the Paris Agreement objective of achieving net-zero emissions by 2050. In early November, the <u>U.N. Environment Program reported</u> that the plans of the 20 top fossil fuel producing countries to expand their production would by 2030 vitiate the Paris Agreement objective of limiting the average global temperature increase to 1.5°C above a mid-19th century benchmark. Those plans would result in producing 70% of the emissions required to reach a catastrophic 2°C increase. An 2021 Intergovernmental Panel on Climate Change report estimated that a 1.5°C increase would boost the likelihood of extreme drought, wildfires, floods and food shortages. More optimistically, a <u>new study estimates</u> we have six years to prevent the average global temperature increase from crossing the 1.5°C target.

Although the agriculture and food system accounts for as much as one-third of global <u>emissions</u>, agriculturalrelated emissions continue not to be a subject of negotiations. However, a November <u>article</u> in Science, found that "even if fossil fuel emissions were eliminated immediately, emissions from the global food system alone would make it impossible to limit warming to 1.5°C and difficult even to realize the 2°C target. Thus, major changes in how food is produced are needed if we want to meet the goals of the Paris Agreement."

At the Food4Climate pavilion in Dubai, there will be presentations on reducing emissions by eating more plant-based foods, on the role of schools and food procurement in reducing emissions, on sustainable nitrogen management, on youth in agriculture and storytelling for changing food systems. However, at COP28 there will be no negotiations towards commonly agreed rules and practices to reduce emissions related to agriculture and food systems. As IATP reported from COP27, any rules on mitigating agricultural emissions are very controversial: "Most developing countries want UNFCCC action on agriculture to prioritize finance and capacity building for climate resilience and adaptation, rejecting outcomes that will put the onus of mitigation on their agricultural sectors."

Among the unlikely topics of discussion is a November report on the 3.28% increase in 2023 in absolute emissions disclosed by 20 major meat and dairy processing companies. Nevertheless, this discussion at a COP is long overdue. Former staff at the United Nations Food and Agriculture Organization (FAO) have reported that their work on estimating livestock emissions was censored for a decade in response to pressure from agribusiness lobbyists.

Organizing the Paris Agreement "market mechanism"

Preparations of documents for the carbon market negotiations are detailed, complicated and arduous. We'll analyze two of the 18 preparatory documents, one defining the terms for projects to remove greenhouse gases from the atmosphere, at least temporarily, and the other to provide safeguards against emissions accounting misrepresentation and the violation of the rights of people who live in the emissions removal project areas. (Six of the 18 documents refer to operational details and work programs of the Article 6.4 Supervisory Body (SB) with the remainder concerning substantive issues to implement the "market mechanism.") Misrepresentation of and even fraudulent projects and violation of rights are numerous, particularly in the self-regulated private emissions offset market. In late October, IATP commented on the third version of the draft recommendation on removals for COP28. Part of that comment is summarized below. Because the SB has modified the removals document considerably between the third version and the latest version, posted on November 17, we comment later on what those changes could mean for the operation of the market mechanism.

Article 6.4 of the UNFCCC Paris Agreement provides the framework for creating a "market mechanism" to enable the sale of "carbon credits" (covering all greenhouse gases but denominated in CO2 global warming potential equivalents) authorized by Paris Agreement "Parties" (federal governments) to "Non-Parties," mostly to companies, but also to sub-federal governments. Carbon credits are commonly known to private investors as "offset credits" but because of Voluntary Carbon Market (VCM) accounting and human rights scandals associated with corporate offset claims, "offsets" and "offsetting" are not part of the Article 6.4 implementation terminology. ("Voluntary" refers to emissions credit trading schemes that lack environmental and other compliance requirements.) At least one scholar has argued that VCM offset projects and credit trading will prevent realization of the Paris Agreement objectives.

The market mechanism is not an exchange in which market participants offer, bid and settle on the price for the carbon credit contractual "commodity." Instead, the market mechanism is a regulatory framework for how Parties are to authorize and register the initial sale of credits derived from emissions removal projects to achieve the objectives of the Paris Agreement. (For a comprehensive overview of Article 6 market mechanism issues, see <u>Carbon Market Watch's FAQ for</u> <u>COP27</u>.)

Once Article 6.4 implementation terms are agreed and a web-based Article 6.4 transaction registry is financed and operational, the Party-authorized credits can be sold to Non-Parties. (Whether Parties can sell unauthorized credits that do not conform to the Article 6.4 implementation rules is a matter of dispute among Parties.) Subsequently, the Non-Parties can resell those credits on an exchange; resell them bilaterally (e.g., company to company without an intermediary, the prevailing carbon market strategy); buy the credits and use them to claim to offset their emissions in "net-zero emissions" accounting schemes and/or retire the credits (the credits must not be used for another purpose) to meet emissions cap obligations in their home country jurisdictions.

At COP27, delegates agreed to support a new use for carbon credits, to make a "mitigation contribution" claim to reduce or remove emissions without claiming that they offset a company or a country's emissions. Given the <u>more than 2,340 lawsuits</u> resulting from deceptive offsetting projects and offsetting claims, Carbon Market Watch saw the inclusion of "mitigation contribution" in the COP27 Article 6.4 documents as reason to hope that COP27 marked the <u>"beginning of the end of corporate offsetting."</u>

The Article 6.4 Supervisory Body (SB): recommending the terms of the market mechanism implementation to COP delegates

The Parties to the meetings of the Paris Agreement (CMA) give guidance to the SBs about how the Parties wish the Articles of the Paris Agreement to be implemented. The SB members work in their "personal capacity," i.e., not officially representing the positions of their governments. They are assisted by an expert panel and the UNFCCC Secretariate located in Bonn, Germany, where most SB meetings are held physically, when they are not held virtually. By November 17, the Article 6.4 SB had met 10 times in 2023 to finalize recommendations to the CMA.

These meeting dates are significant because in 2022, the Article 6.4 SB did not release its <u>recommenda-</u><u>tion</u> for the CMA's consideration <u>until after COP27</u> <u>had started</u>. The late release was not for lack of the

SB's hard work but because the first meeting of the SB did not take place <u>until late July 2022</u>. The late arrival of the removal recommendation gave the CMA delegates too little time to consult with their capitals about the recommendation's content. The CMA asked the SB to develop a removals recommendation and other related recommendations, e.g., the standards and process for verifying emissions removals, in time for COP28.

Much of the 92-page "Information Note" for COP27 are appendices to substantiate a removals recommendation. The Information Note's use of the term "removals" bridged and, semantically at least, removed the difference between land-based projects to temporarily store carbon emissions and removal projects intended to result in long-term storage (p. 32) as what the Information Note terms "Engineering Based Removals," such as Carbon Capture and Storage (CCS). Appendix G (p. 56) gave an econometric projection of how much carbon emissions could be stored for the long-term over a carbon crediting period of 45 years and how many tradable credits from Bioenergy and Carbon Capture and Storage project could be anticipated on a global scale. Appendix H gave short descriptions of "Engineering Based Removal Activities" without indicating any of the many challenges to deploying these projects described by the IPCC.

IATP was among the groups that criticized the substance of the COP27 emissions removals recommendation, partly for conflating in the definition of "removals" land-based removals and engineeringbased removals. We noted, for example, that implementation measures for the Article 6.4 requirement to avoid negative environmental and social impacts would be discussed by the SB after COP27 was concluded. It would have been possible that delegates approved a recommendation on the definition of emission removals, illustrated in the appendices, without agreeing on a text instructing Parties not to authorize for sale removal/offset credits derived from projects whose developers made no or little documented effort to avoid negative environmental and social impacts in their projects. Thankfully, such an approval did not occur at COP27.

For COP28, the SB has delivered a suite of documents that Parties and Non-Parties can analyze for nearly two weeks before the beginning of COP28. However, the complexity of individual documents and their interrelation does not make it easy to understand the documents holistically, even just for the two analyzed here. As a result, for example, the recommendation on "removal activities" could be approved at COP28 and used to legitimize emission removal projects for future inclusion in the Article 6.4 registry of projects and carbon credit sales even though the recommendation on avoiding negative impacts in the project areas languishes from COP to COP.

The schematic SB removals recommendation as of November 3

On October 27, IATP submitted comments on the 15-page Version 3.0 draft removals recommendation. That draft contained many passages of bracketed text, signifying lack of consensus among SB members. Indeed, some entire sections of the text were bracketed, e.g., how to "correct" for reversals of emissions removals, e.g., because of wildfires or floods, through compensation from a buffer fund of credits. IATP advised that the SB should not advance a recommendation to the COP28 delegates with so much bracketed text, since many of the delegates, lacking SB member expertise, could not be expected to resolve so many areas of disagreement, particularly when delegates on smaller delegations also have many non-Article 6.4 duties at COP28. By the conclusion of the SB's October 30-November 2 meeting, most of the brackets had been removed, resulting in the draft removals recommendation (Version 4.1).

In place of bracketed text, the SB promised to provide future guidance, e.g., on when to stop monitoring projects for the risk of emissions reversals and how governments may assume responsibility for monitoring removal projects for emissions reversals after the emissions offset credits have been released for sale. (paragraphs 17-18) Delegates will have to decide whether to approve the recommendation in advance of reviewing the promised future guidance. Governments will have to decide whether to assume responsibility for monitoring for reversals after the private sector project developers have sold removal credits and governments assume liability for any failure to monitor post-crediting reversals.

Another SB strategy to enhance the likelihood of delegate support for the removals recommendation is to remove sources of controversy. For example, the SB defines "removals" in a way that removes controversies associated with specific types of removal projects, such as CCS. Semantic removal of controversy does not, however, remove substantive controversy and implementation challenges concerning removal project types. For example, a CCS project backed by the financial giant BlackRock was <u>scrapped after</u> widespread community opposition.

Controversies about land-based removals and engineering-based removals, such as CCS, are preempted in the draft recommendation definition of "removals" with this sentence: "Any examples in this guidance referring to specific activity types or categories are purely illustrative and do not give effect to decisions by the Supervisory Body regarding their use under the Article 6.4 mechanism." (paragraph 6 b) p. 7, Version 3.0) A "purely illustrative" use of a project type in SB decisions does not affect the content or legal standing of those decisions. This sentence remains intact in the Version 4.1 draft removals recommendation as of November 3, but with the following gualification after "mechanism:" "unless explicitly indicated as such," (p.3) i.e., unless the SB explicitly mentions a removal project type or category in a future decision about Article 6.4 implementation.

For the host countries of the removal projects to carry out their reporting responsibilities to the SB, according to the COP27 Guidance given to the SB, specific removal activities must be reported: "... host Parties and other participating Parties shall provide to the Supervisory Body the information referred to in these paragraphs relating to the approval of specific activities by a host Party..." (paragraph 26, p. 8) COP28 delegates may approve a draft recommendation with a definition of "removals" in which SB decisions about Article 6.4 implementation include mention of project types as "purely illustrative." Or they may consider that definition as inconsistent with the host country removal project reporting responsibilities under the Guidance and not approve the recommended definition. The COP28 delegates could approve the draft removals recommendation despite its inconsistency with the Guidance because of a political imperative to advance the removals recommendation towards making operational the market mechanism, with its promise of carbon credit trading related climate finance for developing country Parties.

The COP27 CMA delegate Guidance to the SB is greatly specified so the delegates likely expect recommendations that are consistent with the Guidance. For example, it includes several categories of information that the host countries of removal projects are to report to the Article 6.4 registry (paragraph 32, p. 9) and the "Written oath of service" that SB members are required to take (p. 22). The SB members are under great pressure to develop a set of recommendations that will be seen by COP28 delegates (and private VCM investors) as advancing the Paris Agreement market mechanism even if some of the recommendations are returned to the SB for further revision.

The removals recommendation is key to that purpose because it defines the physical, accounting and crediting basis for the credits that are to be sold under the myriad terms of the mechanism. Given the carbon credit and removal project failings of which the SB has been informed, e.g., <u>concerning its recommenda-</u> tion on the validation of removal project design and <u>verification of emissions removal project performance</u>, omitting project types from the definition of removals may be diplomatically necessary to advancing the market mechanism.

Changes to the draft removals recommendation after the SB's mid-November meetings

The SB made changes to its 0.4.1 version of the removals recommendation after virtual meetings on November 9-10 and 16-17. (Perplexingly, this latest recommendation is labeled <u>version 01.0</u>.) The first thing that you notice about the 13-page text is that nothing is bracketed, signifying that all SB members agree on the latest draft removals recommendation. The second thing you notice is that there are major features of the recommendation awaiting future guidance from the Parties on how to make the market mechanism operate in their jurisdictions.

For example, the SB writes, "The Supervisory Body will develop further guidance on avoidable and unavoidable reversals, including how they are distinguished and demonstrated." (paragraph 60, p. 11) Monitoring, reporting and correcting emissions reversals in removal projects, e.g., because of wildfires or floods, is one of the most vexing problems in the market mechanism design. At first glance, the corrective seems simple and straightforward: "Reversals shall be remediated through the cancellation of an equivalent amount of 6.4 ERs [Emissions Removals]." (paragraph 49, p. 10) An estimate in metric tonnes of CO₂ equivalent emissions units reversed by a wildfire is remedied, in accounting (not scientific) terms, by taking an equivalent number of emissions removal units from a buffer account to make up for what was lost to the wildfire. However, what if the reversal is not

the unavoidable result of wildfire but is due in part to a failure of a project developer's (or a Party's) forest fire management?

This future guidance alone will be controversial, if only because of a new rule proposed in the latest removals recommendation: "Buffer ERs shall not be cancelled to remediate avoidable reversals." (paragraph 55, p. 11) The removals recommendation calls for a Reversal Risk Buffer Pool overseen by the SB, to which removal project developers will contribute ER units, per the developer's "reversal risk rating." (paragraphs, 52-53, p. 11) If emissions removal project developers have failed to document and demonstrate how they tried to avoid reversals in a removal project area, they cannot draw from the buffer pool to which compliant developers have contributed.

A paragraph from the 04.1 version of the recommendation is reiterated in the latest version: "... the Supervisory Body will develop further requirements in respect of specific removal activity categories or types taking into account national and international best practices in environmental and social safeguards, which activity participants shall also apply." (paragraph 63, p. 12) In this section on "Avoidance of other negative environmental and social impacts" resulting from removal projects, the SB recognizes that it cannot develop avoidance requirements without reference to "specific removal categories or types." This recognition nearly contradicts the definition of "removals" in the latest version, according to which "Any examples in this guidance referring to specific activity types or categories are purely illustrative . . . unless explicitly indicated as such." (paragraph 6 b), p. 4) In this major market mechanism governance issue, the relation between negative impacts and project type is unavoidable.

The Sustainable Development Tool: an effective way to implement the principle of avoiding negative impacts in the design and operation of emissions removal projects?

One of the Paris Agreement objectives of Article 6.4 is "To promote the mitigation of greenhouse gas emissions while fostering sustainable development." The Sustainable Development Tool (SDT) seeks to remedy the negative impacts from removal projects. The <u>draft</u> <u>SDT</u> requires host countries of removal projects to document compliance of removal project developers with environmental and social safeguards against those negative impacts. The draft SDT will identify which Sustainable Development Goals (SDGs) are advanced by the removal projects and provide host countries with sustainable development indicators by which to assess the SDG performance of the removal projects.

The foreword to the <u>U.N.'s Sustainable Development</u> <u>Goals report for 2023</u> begins,

Halfway to the deadline for the 2030 Agenda, the SDG Progress Report; Special Edition shows we are leaving more than half the world behind. Progress on more than 50 per cent of targets of the SDGs is weak and insufficient; on 30 per cent, it has stalled or gone into reverse. These include key targets on poverty, hunger and climate. Unless we act now, the 2030 Agenda could become an epitaph for a world that might have been.

The SDGs were agreed in 2015, the same year as the Paris Agreement. The SB recommendation for the mandatory use of the SDT enables the retrofitting and transfer of the Kyoto Protocol's Clean Development Mechanism (CDM) to the Article 6.4 registry (paragraph 6, pp. 4-5). Because emissions offset trading under the Kyoto Protocol often did not have effective environmental and social safeguards, application of the SDT and the safeguards retrofits CDM credits for inclusion in the 6.4 mechanism. The environmental and social safeguard requirements for removal project developers involve more factors and documentation than the four indicators of sustainable development in the draft SDT, e.g., "The number of improved cookstoves (ICS) distributed under the activity, serving as an indicator for providing basic service access to households under SDG 1, target 1.4." (p. 6)

The environmental and social safeguards of the draft SDT require more of emissions removal project developers ("activity participants") than the provision of improved cooking stoves and other sustainable development indicators to residents within the removal project area. For example, "activity participants are required to document in the activity form [project design document (PDD)] that their proposed activities do not cause any environmental and/or social harm by completing A6.4 Environmental and Social safeguards risk assessment form and the Environmental and Social Management Monitoring Plan." (p. 7) Given the many documented harms resulting from private removal projects for the voluntary carbon market, COP28 delegates may find that the "do no harm" standard of Article 6.4-authorized removal projects, however beneficial to the residents and environment in the project area, will result in a migration to the VCM regime of project developers seeking to produce credits with less demanding requirements. (In the Integrity Council for the Voluntary Carbon Market standards, sustainable development is only an optional attribute of credits that qualify for its Core Carbon Principles label, despite <u>extensive sustainable</u> <u>development requirements for private carbon crediting programs.</u>) (pp. 53-58) It is probable that some delegations will object to the "do no harm" standard of the draft SDT and insist on including qualifiers along the lines of "if feasible."

Conclusion

Even if delegates agree with all the SB market mechanism recommendations, at least two questions may trouble their sleep: 1) Will the trading of credits derived from the removals projects result in emissions cuts consistent with Paris Agreement objective to keep global warming to a 1.5°C increase? To judge by the projected trend in emissions from increased fossil fuels production, the new chair of the IPCC estimated that the likelihood of remaining below 1.5°C "must be less than 33%." Most current removal credits are derived from projects that store GHGs for the very short term, rather than the very long term that the climate requires to meet the Paris Agreement target. 2) Will emissions removal projects and trading of removal credits result in predictable, reliable and adequate finance to enable the mostly developing country hosts of those projects to meet their Paris Agreement emissions reduction targets and adapt to an increasingly hot and volatile climate? As delegates to the Loss and Damage Fund negotiations bicker over who should contribute to finance investments to repair climate-related damage to the most vulnerable countries, the likelihood that carbon markets will provide a small fraction of the estimated \$4.3 trillion of finance required by 2030 to avoid catastrophic climate impacts seems ever less likely.

Twenty-six years after the UNFCCC created the first offset market mechanism in the 1997 Kyoto Protocol, a group of researchers has posed a question that COP28 delegates should debate: Has offset trading, even if reformed as removal credits with limited options to make offsetting claims, become obsolete in what many climate scientists today describe as

<u>a "climate emergency</u>?" <u>The researchers state their</u> <u>case in part</u>:

To support the Paris Agreement's commitment to limit global warming, climate policies must reach and sustain near-net-zero CO₂ emissions in perpetuity. Today's carbon offsets are not only inconsistent with this goal, but the majority actually frustrate temperature stabilization efforts. A growing literature reveals that carbon offsets rarely achieve the climate benefits they claim. Even if they did, vanishingly few lead to long-duration carbon removal, which is needed to counteract any unabated CO₂ emissions. Meanwhile, carbon offsets are primarily used to justify ongoing emissions, rather than reduce them. (p. 1)

After COP28, the SB will continue to produce recommendations, new guidance and new requirements to make the Article 6.4 market mechanism operational while reducing negative impacts from removal projects, particularly land-based projects in developing country Parties. Governments will continue to invest in engineering-based removal technologies or subsidize corporations to do so, in part to enable continued fossil fuel production and emissions. But what will future COPs do if the negative impacts grow and the engineering-based removal projects fail to perform at the scale promised by their promoters, while the dire projections of climate scientists continue to prove true and public and private finance for loss and damage continues to be a pittance relative to need?

There are optimistic stories to tell about climate investment and technology, particularly regarding the accelerating deployment of renewable energy generation and distribution. However, as COP28 delegates review the Global Stocktake's report of "collective progress" and the recommendations to advance the Article 6.4 market mechanism, they should consider applying a sobering analytic framework, that of the sunk cost fallacy, to the negotiations. According to behavioral economists, the fallacy describes an irrational behavior in which the same practice or policy is continued, even if failing at great cost, because of the sunk costs, or irrecuperable expenses invested. This is not to say that the entire Paris Agreement negotiation, much less the work of other UNFCCC bodies, is engaged in sunk cost fallacy bias. But surely, a delegate discussion about whether the dominant use of market mechanism credits — offsetting — is a sunk cost fallacy is overdue.