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Climate talks, REDD and palm oil: flights from reality

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Abstract

The conference in Durban South Africa showed that the UN climate talks remain hopelessly stalled. To circumvent this impasse, advocates of greenhouse gas controls seek to curb forest loss. As part of this effort, some activists focus on emissions from palm oil plantations; others push broader plans to conserve all tropical forests. Yet emissions from palm oil production are too small a part of the global total to make much difference. And both 'leakage' and governance problems will greatly hobble programs to preserve tropical forests. Frustrated, the World Bank and others are trying to use market power to induce palm oil plantations to adopt more 'sustainable' practices. But limits on their market power imply that such efforts are more likely to segment the world palm oil market than to cause large changes in production practices.

Key words

climate change, UN climate talks, Durban Platform, palm oil, REDD, tropical deforestation, greenhouse gas emissions, leakage, RSPO.

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1. Organized hypocrisy at Durban

The UN climate talks in Durban South Africa were said to be a success. If so, it is an odd kind of success. The process escaped abject failure only through "organized hypocrisy". This phrase refers to a common feature of diplomacy. Statesmen often tacitly agree to pretend to believe each others duplicities. The fiction saves all involved from the inconveniences that would result were the lack of agreement to break into the open.

1.1. The roots of diplomatic success

The talks produced an accord, the so-called Durban Platform. In it, each of the major players achieved its most prized goal. These countries did not succeed because the Platform was a step toward global greenhouse gas (GHG) control. To the contrary, they reached their goals only because the platform strictly avoided mandating costly steps toward such controls.

In the Platform, countries agreed, "...To launch a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties, through a subsidiary body under the Convention hereby established and to be known as the Ad Hoc Working Group on the Durban Platform for Enhanced Action". That so much verbal sludge was needed to win agreement about the *form* of the hoped for future deal, speaks volumes about the discord lurking beneath the surface.

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Putting a happy face on the outcome, some reports claim that China and India have now pledged to begin to cut their GHG emissions. Have they? What happens if concord fails to appear by 2015? China and India face no threat more dire than, perhaps, having to take part in yet further rounds of climate talks. A harsh fate perhaps, but one to which they are already subject.

Further, the Platform is silent on the question of the baseline or standard against which GHG cuts would be measured. That silence opens a huge loophole. China and India have already announced intensity targets. With such a target, emissions may go on rising forever as long as the rate at which they do so is less than the rate of economic growth. China and India, then, seem to have done very well in preserving their future freedom of action.

The United States, too, gained its main point. It won the right to do no more than whatever the Asian powers might accept. In future, the United States, in rejecting demands that it make GHG cuts, will be better able to defend itself by pointing to the derelictions of China and India. That the process did not collapse before the 2012 vote also spared President Obama what would have been an awkward problem.

The major oil exporters can also breathe a sigh of relief. These states can look forward to a stable future of climate stalemate. All the better that their customers spared them the obloquy of leading the opposition to GHG controls.

For the EU, the prospect is darker. Europeans are already bearing some of the costs of GHG control. Their costs will fall only if the EU could somehow persuade other countries to subject themselves to equal handicaps. That outcome was, of course, never in the cards.

1.2. The roots of climate policy failure

GHG controls are not in the perceived self-interest of the other major emitters. By and large, China and India are wise to rely on economic growth to counter the risks of climate change. The United States has a deep and diverse capital base and a temperate climate. As such, it is already well-positioned to adapt to climate change. For oil exporters, GHG controls would destroy their markets. Then too, none of these states must cater to a green movement as strong and virulent as that of Europe.

Even so, the Europeans found a silver lining. They did so by putting the bravest possible face on the Durban outcome. Their statesmen seized on the mere prospect of further talks as proof that hope remained for global GHG controls. The pretense postpones the day at which EU voters grasp that their costly climate policies are not a highway to global accord but instead a cul-de-sac.

Thus, at Durban, all governments chose to preserve the fiction of a shared resolve on GHG control. The preaching of EU and a few island states could not, of course, force China, India, and the United States to act against their common national interests. Yet, had the impasse become too open, both the Europeans and President Obama would have suffered political embarrassment at home. No government would have gained from so fully exposing the discord. Organized hypocrisy saved the day.

There is nothing new in this result. Many prior climate talks have been acclaimed as breakthrough moments. The Rio Earth Summit of 1992 was the first. The Berlin Mandate of 1995 set a formula for burden sharing. (Durban just abrogated it). The Kyoto Protocol of 1997 was hailed in Europe and in countries where it imposed no costs. Predictions were that at Copenhagen in 2009 President Obama would produce an historic turning point. The talks came and went; history failed to turn.

The reason that climate talks fail to break the deadlock is simple. No agreement is possible without the assent of the major emitters. As already mentioned, these states do not perceive such an agreement as being in their interests. That perception could change. A cheap new GHG-free energy source might emerge. Science might find some effect of climate change to which key countries could adapt only with great difficulty. Barring such surprises, the calculus of national interest will not change. If it does not, no global accord will be forthcoming. Without an accord, most states will not act.

2. Palm oil and greenhouse gas emissions

As at Durban, though, statesmen recoil from the censure that they would incur were they to admit the impasse. To acknowledge failure would threaten the viability of many national GHG control schemes. Politically potent groups often back these schemes. Some of the backers' motives may be ideological; others may be material, or they may be both. In any case, their stake in keeping alive the effort or program transcends that of the stated

purpose of lowering GHG emissions. The climate change case against the production of palm oil appears to be a case in point.

2.1 Sources of concern

Palm oil has become the world's number one oil seed crop. The market for it is global. Palm oil is an important source of edible fats and oils, chemicals, and biofuel. It has boosted global economic growth as a source of profitable investment and employment and as a source of affordable nutrition in important developing countries.

Some green non-governmental organizations (NGOs) have, however, targeted palm oil production. Palm oil plantations are, they say, a dangerous source of GHG emissions. Not surprisingly, domestic agricultural interests, seeking protection against foreign competition, have made common cause with the greens.

The oil palm is produced in regions where deforestation can contribute to climate change. Replacing virgin tropical forest with plantations can cause release of greenhouse gases. This concern is not wholly fanciful. In Southeast Asia, more than half of the expansion of palm oil plantations has led to some deforestation.¹

The greatest climate worry about tropical forests, though, centers on the draining of peat swamps. Such operations can lead to especially large GHG discharges. True, just how much GHG is released appears from clearing and draining peat lands remains both uncertain and variable. Among four recent studies, the largest estimate exceeded the smallest by almost a factor of seven.² Peat soils, it turns out, are diverse, and so is their CO₂ content.

Then too, prior land use affects emissions. Some oil palm plantations, for instance, are located at peat lands that would have been logged over in any case. In those instances, they may actually avoid some emissions that would otherwise occur.³ Assessment of the over-all impacts of palm oil on emissions would, therefore, require vast amounts of knowledge about past land use as well as about the present. Nonetheless, from a climate change perspective, encroachment on peat swamps poses a potential problem.

The fact is, though, that, at least in Southeast Asia, palm oil has not been an especially large factor in the loss of peat swamps. Thus, the

same study cited above about the link to deforestation also found:

Our results suggest that almost 90% of oil-palm development, before the early 2000s, had occurred on nonpeat areas, and that only 6% of total peatlands within our study region had been planted with oil palm... These findings imply that, from a regional perspective, the oil-palm industry was not the main perpetrator of peatland deforestation.⁴

This result should not actually be a surprise. Planters have sound economic reasons for avoiding peat swamps. Placing plantations on such land entails extra costs for drainage.⁵ Peat soils also often show nutrient deficiencies.⁶ These market incentives have so far proven strong enough to sharply limit palm oil plantations' spread into peatlands. However, oil palm-related encroachment on peat swamps might rise in the future; the concern is that the stock of more suitable sites may come to be exhausted.⁷ How big an issue encroachment might someday prove to be is, at present, impossible to say.

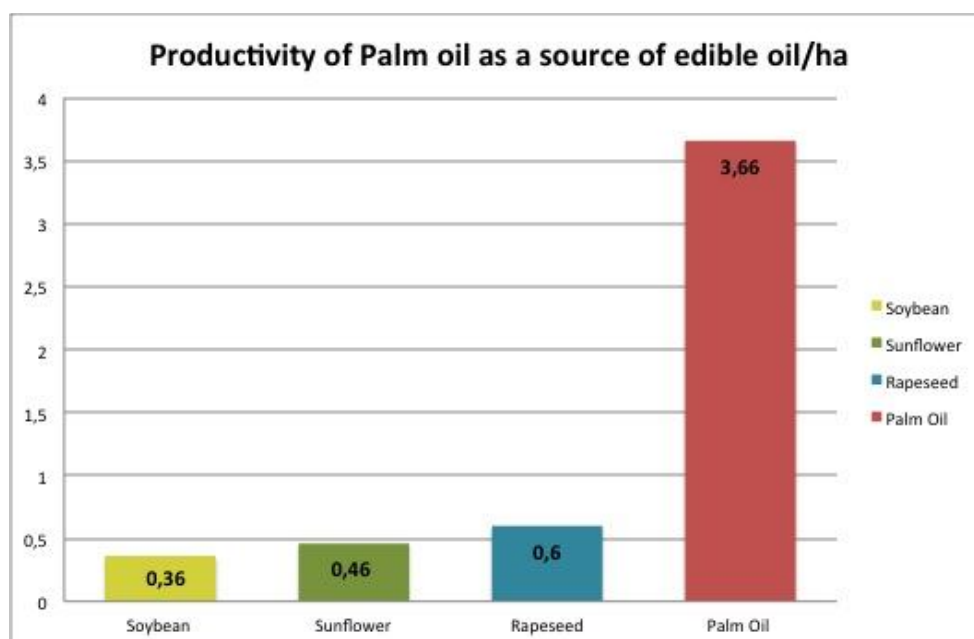
2.2 Putting palm oil emissions in perspective

The most striking fact about palm oil and climate change is, though, that in 2005, only 0.3 percent of all agricultural land was planted in this crop. For that year, the World Resources Institute Climate Analysis Indicator Tool shows that agricultural soils and land use change accounted for 18.2 percent of all GHG emissions. If palm oil emissions per hectare equaled those from other land use change, they would have amounted to 0.05 percent of the year's manmade GHG output. In other words, palm oil would have accounted for one twentieth of one percent of emissions—an impact that would quite literally be lost in the statistical noise.

Of course, emissions per hectare planted in oil palm doubtlessly exceed the average for the sector as a whole. Then again, oil palm is also much more productive per hectare than other oil seeds. Hence, compared with rival crops, oil palm will lessen the total area subject to land use change, and land use change emissions.

This off-setting effect is big. Average palm oil yield is six to nine times greater than that of

Table 1



Source: MPOC & APOC, "Palm Oil Development and Performance in Malaysia" (February, 2010)

other oil seeds.⁸ This high productivity implies that one hectare of forest cleared to plant oil palm might spare nine hectares that would have to be felled to produce the same output by planting soybeans. Figure 1 displays the relevant comparisons of land use efficiency.

What, then, would happen to the market shares of oilseeds were the shadow prices of GHG emissions built into the production costs of all such crops? No one knows. In fact, economists have not even agreed on what the shadow price of GHG emissions actually is. Even had they done so, though, it is awfully hard to credit the idea that the world's statesmen, given the status of global GHG control, should be focused on the optimal use of 0.3 percent of the world's cropland.

3. World climate policy lost in the woods

Thankfully, the triumph of the trivial that already prevails in world climate policy has as yet not reached the point of elevating palm oil into a major focus. Still, beginning with the 2010 Cancun conference, the UN talks have launched an effort to restrict tropical forest loss. There, they reached a sketchy agreement on the subject. Inconclusive talks continued at Durban. They are now seeking to craft schemes designed to reduce emissions from deforestation and forest degradation. This

approach is dubbed REDD in the awkward parlance of UN-speak. The hope is that REDD will not only lower emissions in its own right; it will also create a new momentum for the larger talks.

3.1. REDD: Disappointment in the making

REDD envisions the developed world paying developing countries to preserve tropical forests. REDD is supposed to be inexpensive.⁹ At least four problems, though signal that it may not be.

First, REDD projects plus biofuels programs trigger a forest/fuel/food trade-offs that work against hopes for lowering emissions. REDD programs, if they work, will boost the price of cropland. As cropland becomes more expensive, commodity prices will also rise. And if the affected crops are linked to global markets, higher commodity prices will ripple through those markets. Meta-studies show that high and rising prices of agricultural commodities are a major driver of tropical forest loss.¹⁰ In other words, a risk of market leakage is built into any REDD program.

The scale of EU and U.S. biofuels programs exacerbate the problem of market leakage.

These programs are already likely to increase pressures worldwide to expand crop cover.

Our prospective analysis of the impacts of the biofuels boom on commodity markets focused on the 2006-2015 time period, during which existing investments and new mandates in the US and EU are expected to substantially increase the share of agricultural products (e.g., corn in the US, oilseeds in the EU, and sugar in Brazil) utilized by the biofuels sector. In the US, this share could more than double from 2006 levels, while the share of oilseeds going to biodiesel in the EU could triple... When it comes to assessing the impacts of these mandates on other economies, the combined policies have a much greater impact than just the US or just the EU policies alone, with crop cover rising sharply in Latin America, Africa and Oceania as a result of the biofuel mandates.¹¹

Some factors, it is true, could constrain the extent of leakage. Currently, tropical forest loss is largely centered in a few countries. In the recent past, Indonesia, Brazil, and Malaysia have accounted for over 60 percent of global tropical forest loss.¹² The degree to which curtailing forest loss in these hotspots would shift action to other countries remains unclear. The investment environment elsewhere may be too poor to support forest loss.

Second, weak governance will complicate efforts to implement REDD, but it is hard to cure. The details differ from country to country, but land tenure problems, for instance, are pervasive. In Brazil, for example, fear of expropriation discourages owners from renting their land; with fewer options to rent, landless peasants may be more tempted to clear forests.¹³ In Indonesia, steering growth in oil palm production toward land that is already at least partly deforested might lower pressure to clear virgin forest, but much of the most suitable land is encumbered by contested property rights. Further, in much of the world, definitions of land tenure rights clash with one another, creating risks of protracted conflict.¹⁴ Resolving such disputes takes both time and money, adding to the appeal of clearing virgin forest.

Governments could, in principle, clarify tenure and law; yet, doing so would create losers as well as winners. In Brazil, the leaders of the

Movement of Landless Peasants block reform.¹⁵ In Indonesia, which is currently making just such an effort, clarifying tenure and law will require reconciling clashing property rights systems, deciding the claims of rival ministries, and resolving disputes between local and regional governments and Jakarta—disputes that stretch back, literally, to colonial days.¹⁶ The political costs of persevering with such an effort are likely to be high.

Third, REDD plans are caught in a dilemma between goals that are too stringent and those that are too generous. REDD projects offer positive rewards for emissions cuts rather than penalties for emissions. Therefore, REDD projects must define a baseline emissions path against which to measure progress. All such efforts, though, are fraught with the problem of defining a baseline. Setting the hurdle too high wastes resources as risk-averse agents shun viable projects. Setting the hurdle too low wastes resources as investors pay to preserve forests that were never at risk.

Projects in which REDD is used as a source of emission permits are especially prone to fraud. In such projects, those selling REDD-based permits have an incentive to overstate emission reductions. Those buying the permits have reason to not probe too deeply into the validity of the baselines or the actual emissions. Third-party monitoring and detailed rules may limit abuses, but they lower projects' appeal by boosting their transaction costs. All these problems have been much on display in the UN Clean Development Mechanism.¹⁷ REDD projects, too, will be flawed. Some corruption is inevitable. When it is disclosed, public outrage will ensue. Those who have paid for the projects, be they governments or firms, will share in the obloquy.

Fourth, even were it successful REDD program cannot serve as a model for a larger GHG control system. REDD would work by developed countries paying less developed ones to reduce emissions. Many developed countries, though, are in tight fiscal straits, and their economic growth rates are anemic. Their demographics suggest that things may improve only slowly. Before the recent economic downturn it was already clear that developed countries refuse to pay anything like the full costs of global GHG control. Since that downturn, their rejection of that idea is likely to be firmer still.

3.2. Deploying green market power

Of all problems with REDD, the most intractable may be weak governance in many of the states with tropical forests. To solve this problem green NGOs have combined with some oil palm producers to develop plans to certify the sustainability of palm oil supplies. The goal is that certified palm oil, but only that which is certified, will be allowed to compete in the EU biofuels market.

The incentives consist of both a stick and a carrot. First, green NGOs threaten to damage the public image of buyers who refuse to boycott uncertified palm oil. Second, the resulting demand for certified palm oil will be strong enough to allow its producers to command a premium price. The World Bank is trying to augment the buyers' power by also withholding loans from uncertified producers.

With such plans, some green NGOs and the Bank hope to give palm oil producers an incentive to produce a sustainable product and to bear the costs of certifying it. These incentives, moreover, do not depend on the cooperation of producing country governments.

The Roundtable for Sustainable Palm Oil (RSPO) is the palm oil sector's primary vehicle for certification. RSPO standards do not currently specify an acceptable standard for total GHG emissions. They do, though, set standards for use of best practices with regard to both emissions and equitable treatment of all stakeholders. This system is gaining ground. Today, RSPO certified palm oil accounts for around 10% of total output.

These efforts, though, have not silenced criticism. Some green NGOs question the validity of RSPO's standards. Of these groups, some in the EU demand that mandatory schemes be expanded to cover non-fuel imports of palm oil and its products. Others apparently wish simply to ban such imports.

3.3. Limits on market power to achieve REDD

Schemes to use market power to force producers to certify sustainability suffer from two structural problems.

The first of such problem is that their logical outcome is less to spread sustainable practices than it is to segment

the market. As noted above, palm oil emissions differ greatly from case to case. Buyers, too, are very disparate in their degree of concern about the issue. Some consumers in some countries, like those of the EU, may be eco-sensitive. In other parts of the world, like those of east and south Asia, buyers are more price-sensitive. The heterogeneity of both the supply side of the market and its demand side bring two problems in their wake.

Suppliers' logical response is simply to ship their greener output to the eco-sensitive consumers. They can then ship the rest to the less fussy markets. System logistics costs would also rise. Eco-sensitive buyers and their suppliers would bear added costs of measuring and certifying greenness. The effect on the environment would be slight.

Second, subjecting one kind of oil seed or one region to controls while exempting others, risks substituting high emission outcomes that are exempt from controls for low emission ones that are subject to them. Yet neither the boycott-wielding NGOs nor the World Bank is in a position to impose uniform incentives on world oil seed production. This problem is a classic instance of sub-optimization. In such cases, improving one part of a larger system risks making the total problem worse.

4. Conclusion

To return to the start, the UN climate talks at Durban failed. They did so because the conditions for a comprehensive accord on GHG control do not now exist. Many climate policy actors go to great lengths to avoid facing this reality. They have, instead, sought to work on ever smaller parts of the GHG problem. For this approach, attacking the global climate problem by seeking to curb emissions from palm oil is, perhaps, a perfect *reductio ad absurdum*. Yet denying an aspect of reality does not change it. Only global solutions can solve globe-wide problems.

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