

Carbon credits could be big earner for Indonesia

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Avoided deforestation and carbon credits are worth more than oil palm and can generate greater tax revenue.

Carbon credits through avoided deforestation offer an unparalleled economic opportunity for Indonesian business. *Bloomberg* estimates that preventing the annual release of 1 to 2 billion tons of carbon per year could generate US\$39 billion annually. While this estimate may be high, it is likely that Indonesia could earn up to \$10 billion per year from selling forward voluntary emissions reduction (VER) credits into the global markets.

This assumes demand is stable, but demand is increasing. In fact, the value traded on the EU carbon market last year tripled. If the United States decides to decrease its carbon emissions by 20 percent by 2020 following the lead of the EU, this is enough demand to purchase all of Indonesia's carbon at a premium. China has already made billions off the system -- 60 percent of the market has gone to China -- but Indonesia has far greater long-term earnings potential. This is because Indonesia's natural resources offer a profound, profitable and unique possibility within the current and potential mechanisms available in the global carbon markets.

This is how we can make it happen.

First, we develop a B2B avoided deforestation pilot program pre-Bali Conference of the Parties (COP). We want the government of Indonesia's tacit support for this pilot project. In return, we will issue positive financial press releases before the Bali COP. This will create investor momentum pre-Bali COP while demonstrating investor confidence in Indonesia's capital markets.

Second, concurrently, we want to assist Indonesia with developing a state-sponsored avoided deforestation framework for lands that are managed at the regency, provincial and national levels.

Indonesia can become the global leader in avoided deforestation. Indonesia can diversify its economy while lowering national economic volatility resulting in increasing community development and education funds and increasing water quality. This will occur if Indonesia invests in avoided deforestation as a global market hedge.

Currently, Indonesia is making a macroeconomic long-term bet that oil palm will be worth more than avoided deforestation. In 2004, the oil palm market gave \$43 million in taxes to Indonesia's treasury. Estimated conservatively, the \$10 billion annual estimate of revenue from the two avoided deforestation frameworks, B2B avoided deforestation and state-sponsored avoided deforestation, would add over \$1 billion to Indonesia's treasury.

Simply put, diversification decreases risk while increasing return. Indonesia can diversify its macroeconomic risk resulting in decreasing economic volatility while increasing returns by

committing toward a pilot program of B2B avoided deforestation and later a state-sponsored avoided deforestation framework.

There are currently a basket of methodologies available, some of which were approved under the Kyoto Protocol Clean Development Mechanism (CDM) and some by the Chicago Climate Exchange (CCX). Indonesia can now today earn market-based compensation -- through carbon credits and offsets -- from reforestation by planting native species using CDM and programmatic CDM and using avoided deforestation to reduce emissions using CCX voluntary emissions reduction credits (VER). Indonesia does not need to wait, Indonesia can make money now.

Indonesia has approximately 60 percent of the world's peatland swamps, or 20 million hectares, that could be utilized within the carbon markets easily. By committing to continued palm oil plantation expansion, Indonesia is not only accelerating deforestation causing waterway pollution and its deleterious health affects, Indonesia is exposing itself to the global market risk for a single commodity.

Fluctuations in palm oil demand because of rising international concern over its ecological impact as well as increased competition from other biofuels such as biodiesel and cellulosic ethanol expose Indonesia to global market risk. A global palm oil shock would devastate the Indonesian economy.

From our analysis of Central Kalimantan based on published Indonesian sources, in 2004 Indonesia had:

- * \$4.4 billion dollars export value
- * \$42.3 million dollars taxes
- * 1 percent tax generated per dollar revenue
- * \$850 per hectare export value
- * \$8.13 taxes generated per hectare

Using net present value and discounted cash flow modeling, we estimate avoided deforestation per hectare revenue at \$1,650 annually if businesses participate in the CCX voluntary emissions reduction credit market. Our estimates improve if firms participate in the private market. And World Bank estimates are higher. Tax revenue per hectare could easily be by our estimates 10 times greater than oil palm because the nature of avoided deforestation transactions. Tax revenue is greater with avoided deforestation than palm oil, and it is less risky.

Indonesia can be the global leader in avoided deforestation by taking the following actions:

First, the government of Indonesia can implicitly approve B2B avoided deforestation pilot projects pre-Bali COP. This will develop into positive investor momentum pre-Bali COP.

Second, local Indonesian communities can replant their communal forests using native species. These efforts will produce diverse and healthy forests that will sequester carbon qualifying them for compensation under the existing methodologies available under programmatic CDM and CDM.

Third, Indonesian businesses can start developing avoided deforestation projects now, well before the December COP meeting in Bali, to capitalize on the strategic opportunity presented in Bali to be the first-mover and industry leader.

The global carbon market is serious about avoided deforestation. Indonesia can supply the world. We need your leadership.

It is your choice to make Indonesia the *Jamrud Khatulistiwa* (pearl of the equator).

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