

It's the hottest acronym going in the world of climate change. The UN-backed Reducing Emissions from Deforestation and Forest Degradation is being touted as both the savior of rain forests and a new natural resource commodity that will bring untold riches to the developing world.

The concept, also known as REDD, is both simple and ingenious: Countries can sell credits on the amount of carbon their forests and rain forests soak up to industrialized nations that need to reduce emissions, thereby protecting their environment, stopping global warming and ensuring a sustainable future income without having to chop down the trees.

The reality is more complicated. The proposed UN carbon trading scheme remains just that, a proposal. It's also very complex, would be open to abuse and corruption and can leave local forest-based communities with nothing.

"If I can save forests and get paid for it, that's much better than not saving forests," said Timothy H Brown, senior natural resources management specialist at the World Bank in Jakarta. "If you want to save the forests, make some money out of it. Don't just encourage somebody to love biodiversity. That doesn't pay the bills."

Indeed, a key facet of the REDD scheme is to provide a new and lasting source of revenue for developing nations, in particular regional administrations and local populations. Any new international protocol on climate change, whether it's reached in Copenhagen this month, or sometime in 2010, is likely also to produce a comprehensive agreement on REDD — in effect, making carbon a commodity on a par with oil, natural gas or coal.

The rain forests of Indonesia, which has several pilot REDD projects currently under way, and those in Brazil, are being touted as the future of carbon trading. But that's not necessarily a good thing, according to experts and environmental activists.

"Indonesia hasn't shown the ability to prevent deforestation," Brown said, adding that 1.1 million hectares of Indonesian forests vanish each year.

A Human Rights Watch report released on Tuesday said Indonesia lost up to \$2 billion annually between 2003 and 2006 due to illegal logging, unpaid taxes and royalties from forestry and hidden subsidies for timber companies. That figure did not include the billions likely lost each year from unreported timber smuggled abroad.

The report questioned Indonesia's ability to set up what might be the world's largest carbon trading market to protect forests, given huge corruption in the industry. "In the absence of safeguards, the carbon finance market will simply inject more money into an already corrupt system, short-cutting needed reforms and exacerbating the situation," the report said.

Among the biggest fears is manipulation by foreign carbon brokers who wave cash in the faces of provincial and district government leaders. Called "carbon cowboys," they can sign deals that give Indonesian districts only a fraction of what they should be getting.

Fitrian Ardiansyah, program director for climate and energy at World Wildlife Fund Indonesia, said carbon brokers have already signed deals or made approaches in East Kalimantan, Papua and Aceh.

"They say, 'Sign this. For 100,000 hectares for REDD, you will get \$2 per hectare,'" Fitrian said. "But you're not supposed to count the hectares, you count the carbon."

That's where it gets tricky. The mathematical and scientific calculations to determine how much carbon a given area of forest absorbs are extremely complex, likely far beyond the educational level of a local district chief, experts say. And although they can receive as much as \$2,500 per hectare of protected forest, local communities must first invest millions of dollars or more up front to establish an internationally verifiable way to show that their preserved forests aren't still being chopped down or otherwise misused.

"To have an international commodity, you have to have this scientific basis and certification process, because you're selling something that doesn't exist," Brown said

Another major issue, especially for Indonesia, is who owns the forests in which carbon is stored, and thus has the right to sell the credits. Local communities from Sumatra to Papua are ingrained with the belief that the forest belongs to them, while local, provincial and even the national government have the legal right to lease the land to companies.

"There's no recognition of indigenous people's rights," said M Teguh Surya, head of advocacy at the Indonesian Forum for the Environment (Walhi).

Walhi, which is arguably the country's leading environmental group, has lobbied against REDD, saying the current scheme needs to be amended to require prior consent from indigenous populations before any deals are struck. The group is also calling for a ban on market-based trading of carbon credits — meaning no public selling on stock exchanges — and an international agreement on reducing developed nations' demand for raw materials such as timber.

"REDD is CO2 colonialism," Surya said. "We still need a long debate before we decide anything."

The Ministry of Forestry has a lot to answer for in its woeful management of the nation's forests over the decades. But it has received kudos for its ongoing preparation for REDD, which wouldn't go into effect until 2013 at the earliest.

The ministry has, among other things, developed a national carbon accounting system, a strategic development plan, a monitoring plan and a forest resource inventory system. The oversight must be in place, experts say, to prevent Indonesia's carbon from going the way of its

depleted forests.

"It's a difficult, arcane subject matter. The science, the policy, the economics of it. It's a daunting task," said Todd Lemons, from Infinite Earth, a Hong Kong-based company going through a government certification process to sell REDD options on an orangutan sanctuary in Central Kalimantan.

Nur Masripatin, head of social, economic and forestry policy at the Forestry Ministry, said the government was also preparing programs aimed at "improving the management of national forests, and not encouraging the conversion of forest land to palm oil."

Commodity prices, specifically those of palm oil, could be the spanner in the works for REDD. Given that carbon credits will eventually be traded publicly on international markets, the scheme is at the mercy of crude palm oil prices.

If the price of palm oil goes higher than the price of carbon credits, all bets could be off and the REDD scheme could be quickly consigned to the dust bin of history — along with the forests it is meant to protect.