Tropical and topical

DNA tracking to root out illegal timber

Double Helix Tracking is compiling the world's first bio-geographic tree database with support from the Singapore Government. Once enough genetic data on various timber species and provenances is collected, this technology could make it possible to extract DNA from products from logs to wooden furniture and identify its geographic origin, vastly improving the timber industry's sourcing practices. The technology could significantly aid in enforcing regulations that require identifying the source of timber such as CITES and the US Lacey Act Amendments which were introduced last year. The new US legislation (which began being phased in during 2009) makes it illegal to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce, any plant or products made from plants - with some exceptions - taken or traded in violation of domestic or international laws. It requires an import declaration that includes the scientific names of the plants, value, quantity and country of origin. The Act currently covers primary wood products up to and including plywood but is eventually intended to be applied to all wooden products, providing a market for DNA tracking tools like that under development by Double Helix.

Corporations prod cattle farms on deforestation

The UK's Guardian newspaper recently reported that major footwear brands, such as Adidas, Nike and Timberland are demanding an immediate moratorium on destruction of the Amazon forest from their leather suppliers in Brazil. This comes after the release of a report of a three-year undercover investigation by Greenpeace in June, which stated that leather and beef sold in Britain were obtained from cattle farms involved with illegal deforestation. The Greenpeace report has also spurred the cattle suppliers themselves to take initiatives to exclude cattle raised on recently deforested land from export chains. Bertin, Brazil's top leather exporter and second largest beef exporter has signed a pact with Greenpeace to exclude cattle from recently deforested land in the Amazon from its products following the actions of meatpacker Marfrig, owners of the biggest cattle herd in Brazil, which signed a similar pact with the Mato Grosso state government.

Palms hold less carbon

The tropical rainforest conservation site mongabay.com reported that a study conducted in Sumatra and Kalimantan by World Agroforestry Centre (ICRAF) found that mature oil palm plantations store less than 40 tons of above-ground biomass compared to the 70-200 tons per hectare capacity of logged-over forests in the two locations (which themselves have under half the capacity of untouched forests). Although it has been suspected that palm oil plantations hold less carbon than natural forests, the new figures are lower than what was previously estimated. The low levels of carbon storage of palm oil planted on such lands leads to "carbon payback times" significantly longer than the typical 25 year planting cycle for oil palm, meaning that bio-diesel produced from them would have net emissions exceeding conventional petroleum. However when palm oil plantations are developed on grasslands and abandoned, non-forest agricultural land (where the amount of stored carbon is less than 40 tons/ha), the lower carbon payback time for the palm oil plantations makes biodiesel produced from them less carbon intensive than conventional petroleum.

US debt-for-nature agreement with Indonesia

The US is willing to trade off nearly $30 million in Indonesian debt for protection of forests on Sumatra Island in a debt-swap agreement signed in July 2009 under the US Tropical Forest Conservation Act. Indonesian deforestation in recent years has resulted in enough carbon dioxide emissions to place it third (behind the United States and China) on some rankings of global emitters. Conservation International, the group responsible for brokering the deal between the US and Indonesia, stated that the deal is an innovative way of helping both the people and the species of Indonesia and that the debt repayments owed to the US government will be redirected to conservation of Indonesian forests. The US has signed similar smaller agreements with countries such as the Philippines, Guatemala and Peru.

Seeing the forest for its oil

The Ecuadorean government has made a novel proposal to protect forests that cover an oilfield which lies in a corner of the country's Yasuni national park, other parts of which are already being tapped for oil. The oilfield holds about 846 million barrels of oil, roughly 20% of the country's reserves. The area of the park known as ITT (for the Ishpingo, Tambococha and Tiputini rivers) has high biodiversity and President Rafael Correa's proposal to protect the area, known as the Yasuni-ITT initiative, calls for issuing bonds worth as much as US$5.2 billion at current carbon prices in the European emissions market for the carbon emissions avoided by not exploiting the oil and preserving the forest. The money would be placed in a trust fund managed by international bodies and spent on alterative energy projects in Ecuador, with the bondholders having some control as to how the funds would be used. Any future government of Ecuador that decides to exploit the land for its oil would have to repay the bondholders with interest. Other tropical countries may launch similar initiatives based on the international response to Ecuador's proposal, which will be officially launched once an initial amount of US$350 million is raised from the EU emissions market.

Battle of the acronyms

A draft briefing paper released this year by EU NGO FERN posited that REDD implementation has the potential to undermine the EU's FLEGT process and other efforts to improve forest governance. According to the report, one of the main factors contributing to this is the tight time-frame for implementing

REDD, which may negatively impact the lengthy consultation process required for successful FLEGT agreements known as Voluntary Partnership Agreements (VPAs). In order to ensure all rights holders and stakeholders are involved, time is required to investigate legality and land tenure issues. In the push to implement REDD programs quickly, indications are that governments and international institutions developing REDD schemes are not taking time to create a proper consultation process with representatives of the groups that will be directly affected. This may push governments in the direction of REDD funding to the detriment of the FLEGT VPA process which may seem a more demanding option. REDD may cause problems with FLEGT arrangements due to the lack of clear demands for good governance and recognition of community rights within the prerequisites for REDD spelled out to date. If REDD promises funds for the same forest resource but without an insistence on good governance and recognition of rights of local communities and indigenous peoples, more governments will opt for REDD schemes and bypass the painstaking consultation processes (and when relevant, the governance and law reforms) that are part of the FLEGT process.

Green light for AR-CDM project in Vietnam

A reforestation project in the north-western Province of Hoa Binh of the Socialist Republic of Vietnam was approved in 2009 by the CDM Executive Board of UNFCCC and registered as the fourth Afforestation/Reforestation – Clean Development Mechanism (AR-CDM) project in the world, following other approved projects in China, Moldova and India. The Project was developed by the Ministry of Agriculture and Rural Development (MARD) with technical assistance from the Japan International Cooperation Agency (JICA). The project has drawn attention as the first small-scale AR-CDM project in Vietnam and involves reforestation of over 300 ha using *Acacia mangium* and *Acacia auriculiformis*. The project contributes not only to mitigation of global climate change through sequestration of CO_2 but also to socio-economic development of the local communities involved.

The major funding source for the reforestation activities of the project is Honda Vietnam's "Clean and Green Program", part of its corporate social responsibility program in Vietnam. In addition to funds, Honda has provided over 600 staff members to participate in tree planting activities. Honda Vietnam signed an agreement with the Forest Development Fund, which was recently established by the Vietnam Forestry University and the People's Committee of the Cao Phong District to implement the project.

Useful lessons learned during development of the Vietnam project for others developing small scale AR-CDM projects were:

- make project design document simple;
- prepare a feasibility study report for the project to facilitate responding to queries from designated operational entity (DOE - an independent auditor of a project's compliance with CDM requirements);
- use the default values given in the approved CDM methodologies as much as possible in order to avoid cumbersome justification and explanation of self-developed values to the DOE;

Hoe-down: Villagers and Honda employees planting seedlings on project site. *Photo: Nguyen Van Uc*

- calculate values conservatively;
- collect and file relevant documents, regulations and literature for consideration by DOE;
- use a non-profit organization as the project implementer/owner, if possible, to exempt income from earned certified emissions reductions (CERs) from tax in order to maximize CER income to be distributed to local farmers;
- pay special attention to establishing land eligibility, additionality and participation of poor communities; and
- use an applicant entity (a body waiting for CDM approval as a DOE) to reduce validation costs.

Those involved in the design and execution of the project also suggest that the CDM may consider relaxing some of its monitoring requirements without sacrificing credibility in order to make AR-CDM more attractive to investors. A similar initiative supported by JICA in South America found that frequent changes to the rules and the guidelines of Article 12 of the Kyoto Protocol make project development and approval difficult.

Africa lumbering towards forest tenure

A report released in May at a major global forestry conference in Cameroon has found that, despite some progress in Cameroon and other countries like Mozambique and Tanzania, Africa is moving much slower on tenure reform than other regions. According to the report this may be due to the fact that governmental control over the world's tropical forests hinders actions to stop deforestation and to alleviate poverty for some of the world's poorest rural peoples. The study, released by ITTO and the Rights and Resources Initiative (RRI), has found that less than 2 percent of Africa's tropical forests are owned by or designated for use by the region's forest communities and indigenous groups compared to nearly one third of all forests in Latin America, Asia, and the Pacific. Previous research by RRI partners shows that forest communities are equal or better protectors of forests than governments and industry where their rights are recognized.

Although the population density relative to forest area in Africa is close to the global average, the deforestation rate is 4 times the world average. More than 70 percent of Africa's remaining tropical forests are located in Central Africa's Congo Basin, but civil conflicts, inadequate governance, and a lack of action on land reform put much of the forest area at risk.

The study compared the distribution of ownership in 2002 and 2008 in 39 tropical countries, which represent 96 percent of global tropical forests. At the current rate of reform, it will take the Congo Basin countries 260 years to reach the level of reform achieved in the Amazon Basin. If they move as quickly as the Amazon countries, this change could happen in 16 years. The next issue of the *TFU* will focus on the outcomes of the study and conference.

Norway and U.S. support forest conservation

Norway has agreed to support the conservation of Guyana's forests with up to US$250 million. Under an agreement signed in early November, Norway will immediately put US$30 million into Guyana's 'REDD+' (Reduction of Emissions from Deforestation and forest Degradation) development fund. Additional payments (which can total up to US$250 million through 2015) will be based on the results of Guyana's efforts in preventing deforestation. The country currently suffers little deforestation but pressures are mounting for large-scale logging and forest conversion projects to support economic development. Since deforestation is almost negligible now, the agreement actually allows for a slight increase to allow for planned development projects. The Norwegian funds will be used for sustainable development projects as well as climate change adaptation measures.

The United States is also increasing its support for tropical forests, pledging US$275 million to protect tropical rainforests at a recent event hosted by Britain's Prince Charles in London. A large amount of the money is slated for the Amazon and Congo basins in South America and Africa. The fund, to be drawn from a $1.2 billion international development assistance program, aims to protect biodiversity and support sustainable landscapes with a focus on protection of tropical forests.

Disney works magic on threatened forests

The well-known film studio and entertainment conglomerate Disney will invest $7 million to save and restore forests in the Amazon, the Congo Basin and the United States. The investment will be made in partnership with NGOs Conservation International, The Nature Conservancy and the Conservation Fund. The projects aim to combat climate change, improve livelihoods of local communities and protect threatened wildlife through a variety of conservation strategies including avoided deforestation, reforestation and improved forest management. More than half of Disney's investment will go to the Tanya and Kisimba-Ikobo Community Reserves in eastern Democratic Republic of Congo and the Alto Mayo conservation project in Peru, both key tropical forest regions. The protection of these areas not only reduces carbon emissions, but will keep vital watersheds and habitats for a wide variety of wildlife, many of which are threatened or endangered, thereby maintaining biodiversity. The majority of the funds will go towards financing community management of the forests in the project areas and improving sustainable livelihood practices among local villages. The funds will also help complete project design, conduct forest carbon analysis and finance verification of avoided emissions at the conclusion of the projects.

WWF pushing FSC to publishers

The World Wildlife Fund (WWF) has called on publishers to exclusively use the FSC standard for their paper, including recycled stock. At an October book fair in Germany, the NGO presented findings of a study that showed "significant traces of tropical wood" in 19 of 51 German children's books tested. The books, which came from well known publishers found traces of tropical wood species that are almost exclusively found in natural tropical forests (as opposed to plantations). Asia Pulp and Paper (APP), named as one of the companies that produce the pulp used in the books, responded to the WWF claims by noting that they use 30% certified material (above global standards for printing paper) and that a strict procurement policy is maintained in all operations to ensure no illegally obtained wood enters the fiber supply. These arguments were insufficient to convince high profile customers like Gucci and Tiffany, which have recently dropped APP as a supplier for paper used in their catalogues and shopping bags in favour of FSC certified sources, mostly from developed countries.

Deforestation emissions overblown?

New research published by the journal Nature Geoscience indicates that the widely quoted estimate of up to 20 percent of man-made carbon dioxide emissions being caused by deforestation is excessive. The paper by Guido van der Werf at the VU University of Amsterdam reports that the figure should be closer to 12 percent, noting that the IPCC report which first made the estimate of 20 percent used wrong or outdated information. The new findings may impact the debate on forestry in a new treaty to curb carbon emissions, since the amount of carbon potentially involved in initiatives like REDD could be significantly less than estimated. However, it should be noted that the 12 percent figure is also an estimate, with the actual contribution of deforestation lying somewhere between 6 and 17 percent of manmade carbon emissions based on the best data currently available.

Space agencies and Google to watch over forests

Reuters reported that space agencies and Google Inc. are involved in an international project to monitor forests by satellite to fight global warming. "The only way to measure forests efficiently is from space," said Jose Achache, director of the Group on Earth Observations (GEO), which brings together governments, space agencies and others to evaluate forests. The project will make annual assessments of forest carbon stocks instead of the current five-year cycle. Google will contribute to the project, including with its well known for its Google Earth satellite images. America's NASA, the European Space Agency (ESA) and national space agencies of Japan, Germany, Italy, India and Brazil are involved in the forest mapping. Australia, Brazil, Cameroon, Guyana, Indonesia, Mexico and Tanzania are the seven pilot project countries for 2009-10 for which recent satellite images will be compared to satellite images dating back to 1972 to calculate deforestation rates in those countries. The first phase of the project will establish how much of each country is currently forested, while the second phase will work out how much carbon is stored in each type of forest. Radar images of forests can measure carbon above ground by recording microwaves, which are scattered by passing through vegetation, and calibrate those assessments against measurements taken on the ground.

Biodiversity possible in logged forests

A new study in the journal Conservation Biology finds that original levels of biodiversity can return within 15 years in logged forests that are properly rehabilitated. Studies were conducted in regenerating forests in northeast Borneo by Dr. David Edwards from the University of Leeds, who surveyed bird species in protected untouched forests and two previously logged forests: a forest actively rehabilitated for 15 years, and a naturally regenerating forest, both of which were logged 20 years ago. Edwards observed that through managed rehabilitation efforts, such as tree-planting, biodiversity returned within 15 years close to the level of the untouched forest, while naturally regenerating forests were shown to have less diversity within the same time frame. However, in Southeast Asia, logged forests are often converted to plantations which are not able to support as wide a range of biodiversity as natural forests. The study recommends that countries should protect and rehabilitate logged forests instead of converting them into plantations, and that such activities should be taken into consideration by carbon trading projects and REDD schemes since carbon sequestration and biodiversity preservation are directly linked.

Ghana's forest taskforce not up to task?

Despite a specially formed joint military-police forest protection taskforce, seven Ghanaian forest and wildlife reserves are still under threat of mining, logging, chainsaw operations and other incursions. According to the Regional Manager of the Forest Service Division (FSD), Mr. Kwakye Ameyaw, the threatened forest and wildlife reserves amount to close to 22 000 hectares. In an effort to address the illegal forest reserve activities, the joint taskforce is being reviewed to increase the number of military personnel involved. In addition, there are plans for increased stakeholder participation and a broadening of the scope of monitoring to cover illegal mining and farming in forest reserves. Although no arrests have been made in direct relation to the problems in the reserves, Regional Manager Ameyaw noted that the taskforce has had some success, since a number of forest reserves such as Kokosua Hills in the Juaboso District would have been completely devastated if not for its interventions.