

# **CLIM-FO** Climate Change & Forestry





## **CONTENTS**

1. IN THE PRESS	1
II. UNFCCC NEGOTIATIONS AND RELATED DISCUSSIONS.  United Nations Framework Convention on Climate Change	
III. EVENTS & MEETINGS	
Past events	
FAO at the EU Parliament for the High level conference on forests	
Upcoming events	
International Year of Forests, 2011	
International Symposium on Costs and Benefits of REDD plus: What, Who, How and When?	2
Alternative futures to meet demands for food, fibre, fuel and REDD+	2
UNFCCC Subsidiary Bodies	
FAO European Forestry Commission and UNECE Timber Committee	
11th Rights and Resources Initiative's Dialogue on Forests, Governance and Climate Change: Status and Fublic and Private Finance to Reduce Forest Loss and Degradation	3
Second Asia-Pacific Climate Change Adaptation Forum	
Asia Pacific Forestry Week and the FAO Asia-Pacific Forestry Commission Session	
Forest Day 5	
IV. RESEARCH ARTICLES	4
Forest tree diseases in relation to climate change.	
Opportunities and challenges for terrestrial carbon offsetting and marketing, with some implications for the UK	
Carbon emissions: Loophole in forest plan for Indonesia	
Forest fires in Mediterranean countries: CO2 emissions and mitigation possibilities through prescribed bu	_
Impacts of initial stand density and thinning regimes on energy wood production and management-relate emissions in boreal ecosystems	
Short rotation forestry as a viable option for GHG mitigation.	5
Financial Contracts and the Management of Carbon Emissions in Small Scale Plantation Forests	
Agroforestry and carbon sequestration: a global scenario	
Optimizing forest management in Finland with carbon subsidies and taxes	
The Congo Basin forests in a changing climate: Policy discourses on adaptation and mitigation (REDD+)	
Preliminary Evidence on Responses to the New Zealand Forestry Emissions Trading Scheme	
A landscape mosaics approach for characterizing swidden systems from a REDD+ perspective	
Effectiveness and legitimacy of forest carbon standards in the OTC voluntary carbon market	
V. PUBLICATIONS, REPORTS AND OTHER MEDIA	
Dangerous Climate, A Brazil-UK analysis of Climate Change and Deforestation Impacts in the Amazon	
Making REDD+ cross-sectoral: why, how and what are the potential socio-economic impacts?	
Mainstreaming Climate Change Adaptation into Development Planning: A Guide for Practitioners	
Carbon righteousness: how to lever pro-poor benefits from REDD+	
The Root of the Problem—Drivers of Deforestation	
Building Forest Carbon Projects - Step-by-Step Overview and Guide	
Estimating Reference Emission Level and Project Emission Level for REDD Projects in Tropical Forests	
Strengthening Local Resilience to Climate Change	
Analysis of the Potential of Sustainable Forest-based Bioenergy for Climate Change Mitigation	
REDD+ and Agriculture: a Cross-sectoral Approach to REDD+ and Implications for the Poor	
REDD+ and Energy: a Cross-sectoral Approach to REDD+ and Implications for the Poor	

VI. JOBS	10
REDD+ Project Manager,	10
Director, Forest and Climate	10
VII. ANNOUNCEMENTS	10
FSC forest management and carbon auditing	10
Specialized Library on Climate Change (SLCC)	10
REDD+ online database	10
Negotiating climate change workshop	10
CLIM-FO INFORMATION	11

## I. IN THE PRESS

### 12 September 2011, ForestCarbonAsia

## Old growths remove 2.4 billion tonnes of carbon per year

A JOINT study with the Australian Climate Change Science Program has found that the world's established forests remove 2.4 billion tonnes of carbon per year from the atmosphere.

## 5 September 2011, Forest Carbon Portal Tree ownership hindering REDD+ in Ghana

The rights over tree tenure often determines who benefits from REDD+ activities in Ghana suggests Willem den Besten from IUCN. Due to strong influence of formal and customary systems of land and tree ownership in Ghana, it can be very hard for farmers to obtain certificates of tree ownership.

#### 4 September 2011, Mongabay

## 62% of <u>deforested Amazon land ends up as cattle</u> pasture

62 percent of the area deforested in the Brazilian Amazon until 2008 is occupied by cattle pasture, reports a new satellite-based analysis by Brazil's National Institute for Space Research (INPE) and its Agricultural Research Corporation (Embrapa).

#### 2 September 2011, Mongabay

## New plan to restore 150 million hectares of forest

Conservationists and politicians meeting in Bonn on Friday launched a new initiative to restore 150 million hectares (580,000 square miles) of deforested and degraded forests, reports the World Resources Institute (WRI), an NGO that is involved in the effort.

### 1 September 2011, Nature

### Loophole in forest plan for Indonesia

Last year, Indonesia and Norway signed the Oslo Pact, which will pay Indonesia up to US\$1 billion to reduce carbon emissions by advancing forest-conservation initiatives. But the pact has a big loophole.

### 25 August 2011, CIFOR

## <u>Deforestation much higher in protected areas</u> than forests run by local communities

Tropical forests designated as strictly protected areas have annual deforestation rates much higher than those managed by local communities - reinforcing a challenge to a long-held belief that the best way to conserve forests is to lock them away in protected areas, according to a new study.

#### 22 August 2011, Reuters

## <u>Australia Senate passes forest, farm offsets scheme</u>

Australia's parliament on Monday endorsed the world's first national scheme that regulates the creation and trade of carbon credits from farming and forestry to complement government plans to put a price on carbon emissions from mid-2012.

#### 18 August 2011, Reuters

## Biomass key for low-carbon energy, spurs food prices

Greater use of woody fuels is vital to slash global carbon emissions but fast advances in crop yields will be needed to avoid driving up food prices, members of Germany's Potsdam Institute for Climate Impact Research found.

### 17 August 2011, Nature

### Brazil revisits forest code

A tough-minded law has boosted Brazil's environmental record in recent years by helping to drive the rate of destruction in the Amazon rainforest to historic lows. But a backlash in the hinterlands is threatening to weaken the country's forest code and push deforestation rates back up again.

#### 16 August 2011, AlertNet

## <u>A billion-dollar question: How much will it take to protect trees?</u>

Would \$33 a month do? That is the amount a project in the Amazon pays each of 7,600 families in exchange for a pledge to protect the rainforest. The stipend is bundled together with other development aid, including better education, health care and livelihood support.

#### 16 August 2011, AlertNet

### Value on ecosystem services needed to curb Asian deforestation - IPCC chief

Deforestation is still occurring at an alarming rate in Asia Pacific countries despite a slight increase in overall forest cover, a leading climate scientist said Friday, and a better system to put a value on the ecosystem and the services it provides is needed to stop the losses.

## II. UNFCCC NEGOTIATIONS AND RELATED DISCUSSIONS

### United Nations Framework Convention on Climate Change

No negotiations have taken place since the June newsletter. In the October issue we will be back with a report on the negotiations taking place in Panama, 1-7 October 2011.

The upcoming meeting in Panama will include the continuation of the fourteenth session of the AWG-LCA and the sixteenth session of the AWG-KP. For further information please see the UNFCCC-website.

## III. EVENTS & MEETINGS

### Past events

### FAO at the EU Parliament for the High level conference on forests

6 - 7 September 201, Brussels

The High level Conference on Forests organized on 6<sup>th</sup> and 7<sup>th</sup> of September 2011 in Brussels at the EU Parliament, brought together more than 250 participants, and was a major contribution to promote awareness and understanding of forests and forestry issues. The Assistant Director General of the Forestry Department, Eduardo Rojas-Briales, presenting the State of the World's Forests 2011, emphasized the significant potential of forests and sustainable forestry management for the alleviation of poverty, the livelihood of over 1.6 billion people depending on forests. The Conference was the largest event organized in the EU at the occasion of the 2011 International year of forest. Concluding the high level conference "European and Global Forests - Which Way to the Future?", numerous experts, state representatives and EU Parliamentarians pointed out the urgent need to establish a coherent European and global policy approach to protect and preserve the multiple social, economical, and environmental benefits provided by forests. The participants emphasized the key role of sustainable forestry management addressing climate change, biodiversity, and promoting green growth. "We have to fight against a worrying situation in order to save the threatened forests of this planet" stated H.S.H Prince Albert II of Monaco, from which the Prince Albert II of Monaco Foundation address the worrying threats faced by our planet's environment.

#### **Upcoming events**

### International Year of Forests, 2011

1 January - 31 December 2011

UN General Assembly has designated 2011 as International Year of Forests. The secretariat of the UN Forum on Forests serves as the focal point for the implementation of the International Year of Forests, in collaboration with governments, the members of the Collaborative Partnership on Forests and international, regional and subregional organizations and processes as well as relevant major groups. More.

### International Symposium on Costs and Benefits of REDD plus: What, Who, How and When?

19-20 September 2011, Kuala Lumpur, Malaysia

Organised by Hiroshima University, United Nations University, Forest Research Institute Malaysia (FRIM), Forestry and Forest Products Research Institute (FFPRI), Research Institute for Humanity and Nature (RIHN) with the objectives to take stock of current knowledge and information on costs and benefits of REDD and to provide an opportunity to deliberate on funding systems to support REDD plus activities that protect ecosystem services and secure the socio-economic well-being of local communities. More.

#### Alternative futures to meet demands for food, fibre, fuel and REDD+

27 September 2011, Jakarta, Indonesia

Forests Indonesia invites leading international and national experts on forests and their roles in supporting the economy and mitigating climate change to convene to discuss the challenges and opportunities faced by Indonesia in the sustainable use of this valuable resource. More.

### **UNFCCC Subsidiary Bodies**

## 1 - 7 October 2011 in Panama City, Panama

The third part of the sixteenth session of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP 16) and the third part of the fourteenth session of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA 14). More.

### FAO European Forestry Commission and UNECE Timber Committee

10-14 October 2011, Antalya, Turkey

The European Forestry Commission (EFC) is one of six FAO Regional Forestry Commissions that cover the world's major geographic regions. More.

## 11th Rights and Resources Initiative's Dialogue on Forests, Governance and Climate Change: Status and Role of Public and Private Finance to Reduce Forest Loss and Degradation

12 October 2011, London, UK

Organised in conjunction with Forest Peoples Programme, the Dialogue aims to examine what needs to be done to ensure that REDD+ finance is sustainable, accountable, fair and effective. The Dialogue will facilitate the sharing of relevant emerging lessons, experiences and perspectives among indigenous leaders, community representatives, policy makers and organisations working in the field. More.

### Second Asia-Pacific Climate Change Adaptation Forum

27 & 28 October 2011, Bangkok, Thailand

The Adaptation Forum 2011 will provide a unique opportunity to share frontline findings and innovations, opportunities and challenges in mainstreaming climate change adaptation into development. Building on from Adaptation Forum 2010, the Forum this year aims to focus on "Adaptation in Action" signifying a shift from deliberations to decisions, plans to policies and policies to practices. More.

### Asia Pacific Forestry Week and the FAO Asia-Pacific Forestry Commission Session

7-11 November 2011, Beijing, China

The Second Asia-Pacific Forestry Week, including the 24th session of the FAO Asia-Pacific Forestry Commission, promises to be the most significant forestry event of the year in the Asia-Pacific region. The event will bring together a large and diverse group of stakeholders to deal comprehensively with the most relevant challenges facing the sector today. Climate change issue will take central stage in one plenary session and several partner events. More details will be available soon on the websites of the Asia-Pacific Forestry Week and the Asia-Pacific Forestry Commission.

### Forest Day 5

#### 4 December 2011, Durban, South Africa

Forest Day 5 will seek to inform the UNFCCC global agenda and forest stakeholders on ways to implement an international REDD+ funding mechanism that produces social and environmental benefits, above and beyond avoided emissions. The event will have a particular African focus, looking at the tropical forests of the Congo Basin and elsewhere, and the continent's wide expanses of dry forest areas. More.

## IV. RESEARCH ARTICLES

### Forest tree diseases in relation to climate change.

Parminder Singh Sharma, V. K. Rattan, G. S. Chander Mohan Indian Journal of Ecology. 2011. 38: Special Issue, 232

Survey of agro-plantations, forest nurseries and roadside plantations was done in Punjab in which incidence and severity of tree diseases were recorded. Disease symptoms were recorded and pathogen associated were identified by standard methods. Literature was reviewed to find out already reported diseases of trees. The emerging tree diseases were identified and correlated with the climate changes occurred in last few decades. In Punjab, the last two decades proved very crucial. This paper discusses the different situations. The change in monsoon trend in terms of delayed approach has led to stretching out of hot months (Situation 1). The delayed rains which come in comparatively milder temperatures have led to prolonged periods of soil wetness, causing increased activity of soil borne fungi/pathogens (Situation 2). High CO2 levels leading to more succulent leaves and increased activity of foliar pathogens (Situation 3). All these conditions have resulted in degradation of tree cover in the region and these situations have been evaluated for their influence on tree diseases.

## Opportunities and challenges for terrestrial carbon offsetting and marketing, with some implications for forestry in the UK

Nijnik, M. Slee, B. Pajot, G. SEEFOR. 2010. 1: 2, 69-79

Climate change and its mitigation have become increasingly high profile issues since the late 1990s, with the potential of forestry in carbon sequestration a particular focus. The purpose of this paper is to outline the importance of socio-economic considerations in this area. Opportunities for forestry to sequester carbon and the role of terrestrial carbon uptake credits in climate change negotiations are addressed, together with the feasibility of bringing terrestrial carbon offsets into the regulatory emission trading scheme. The paper discusses whether or not significant carbon offsetting and trading will occur on a large scale in the UK or internationally. Materials and methods: The paper reviews the literature on the socio-economic aspects of climate change mitigation via forestry (including the authors' research on this topic) to assess the potential for carbon offsetting and trading, and the likely scale of action. Results and conclusions: We conclude that the development of appropriate socio-economic framework conditions (e.g. policies, tenure rights, including forest carbon ownership, and markets) and incentives for creating and trading terrestrial carbon credits are important in mitigating climate change through forestry projects, and we make suggestions for future research that would be required to support such developments.

### Carbon emissions: Loophole in forest plan for Indonesia

David P. Edwards, William F. Laurance *Nature*, *Volume:*477, p:33

Last year, Indonesia and Norway signed the Oslo Pact, which will pay Indonesia up to US\$1 billion to reduce carbon emissions by advancing forest-conservation initiatives. As part of the deal, Indonesia must halt the licensing of new agricultural plantations and logging concessions on peatlands and natural forest for two years. Clearing and logging must instead be directed to non-forest 'degraded' lands and to existing concessions. But the pact has a big loophole. Indonesia is the world's third-largest emitter of greenhouse gases, caused mostly by rampant felling or burning of its rainforests and carbon-rich peat-swamp forests. The loss of these ecosystems also threatens major hot spots of global biodiversity. The hope is that the Oslo Pact and follow-on carbon payments can stem this tide. However, President Susilo Bambang Yudhoyono of Indonesia has issued a two-year moratorium on new concessions for clearing or logging of peatlands and natural primary (old-growth) forest. Contrary to the Oslo Pact, vast expanses of selectively logged forests — which sustain substantial carbon stores and much biodiversity — are classed as 'degraded' and left out of the moratorium altogether. The net effect is that these natural forests could be re-logged or cleared for oil palm and pulpwood plantations. According to its Ministry of Forestry, Indonesia has 35.4 million hectares of logged forest that can be cleared, considerably more than the upper estimate of 20 million hectares of primary forest protected under the moratorium. Many protected forests are in steep, mountainous areas that face little threat. The most imperilled forests, in the lowlands, are largely excluded from the deal because they have been logged previously. On top of this, the moratorium fails to protect shallow peatlands from conversion, or halt primary forests and deep peatlands from being cleared for sugar cane — one of the most rapidly expanding biofuel crops. We urge Norway to insist that logged forests and clearance for sugar cane be included under the moratorium. Without doing so, this is little more than business as usual in Indonesia.

## Forest fires in Mediterranean countries: CO2 emissions and mitigation possibilities through prescribed burning

Vilen, T. Fernandes, P. M.

Environmental Management. 2011. 48: 3, 558-567

Forest fires are an integral part of the ecology of the Mediterranean Basin; however, fire incidence has increased dramatically during the past decades and fire is expected to become more prevalent in the future due to climate change. Fuel modification by prescribed burning reduces the spread and intensity potential of subsequent wildfires. We used the most recently published data to calculate the average annual wildfire CO2 emissions in France, Greece, Italy, Portugal and Spain following the IPCC guidelines. The effect of prescribed burning on emissions was calculated for four scenarios of prescribed burning effectiveness based on data from Portugal. Results show that prescribed burning could have a considerable effect on the carbon balance of the land use, land-use change and forestry (LULUCF) sector in Mediterranean countries. However, uncertainty in emission estimates remains large, and more accurate data is needed, especially regarding fuel load and fuel consumption in different vegetation types and fuel layers and the total area protected from wildfire per unit area treated by prescribed burning, i.e. the leverage of prescribed burning.

# Impacts of initial stand density and thinning regimes on energy wood production and management-related CO2 emissions in boreal ecosystems

Ashraful Alam, Antti Kilpeläinen and Seppo Kellomäki European Journal of Forest Research, 10.1007/s10342-011-0539-

An ecosystem model (Sima) was utilised to investigate the impact of forest management (by changing both the initial stand density and basal area thinning thresholds from current recommendations) on energy wood production (at energy wood thinning and final felling) and management-related carbon dioxide (CO2) emissions for the energy wood production in Finnish boreal conditions (62°39N, 29°37′ E). The simultaneous effects of energy wood, timber and C stocks in the forest ecosystem (live and dead biomass) were also assessed. The analyses were carried out at stand level during a rotation period of 80 years for Scots pine (Pinus sylvestris L.) and Norway spruce (Picea abies L. Karst.) growing in different fertility sites. Generally, the results showed that decreased basal area thinning thresholds, compared with current thinning, reduced energy wood (logging residues) and timber production, as well as carbon stocks in the forest ecosystem. Conversely, increased thinning thresholds increased energy wood production (ca. 1-27%) at both energy wood thinning and final felling and reduced CO2 emissions (ca. 2-6%) related to the production chain (e.g. management operations), depending on the thinning threshold levels, initial stand density, species and site. Increased thinning thresholds also enhanced timber production and carbon stocks in the forest ecosystem. Additionally, increased initial stand density enhanced energy wood production for energy wood thinning for both species, but this reduced energy wood production at final felling for Scots pine and Norway spruce. This study concluded that increases in both initial stand density and thinning thresholds, compared with the current level, could be useful in energy wood, timber and carbon stocks enhancement, as well as reducing management-related CO2 emissions for energy wood production. Only 2.4-3.3% of input of the produced energy (energy wood) was required during the whole production chain, depending on the management regime, species and sites. However, a comprehensive substitution analysis of wood-based energy, in respect to environmental benefits, would also require the inclusion of CO2 emissions related to ecosystem processes (e.g. decomposition).

## Short rotation forestry as a viable option for GHG mitigation.

Sreedevi Madhusudanan Patil, N. S. Suman Jha Aneesh, S. Indian Journal of Ecology. 2011. 38: Special Issue, 15-19

Global warming and associated Climate change is an important environmental issue that has captured the world's attention during the recent past. The mitigation of global warming entails reducing the atmospheric concentrations of GHGs, particularly the CO2. The Land Use, Land Use Change and Forestry (LULUCF), an approach that became popular in the context of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) allows the use of C sequestration through afforestation and reforestation as a form of GHG-offset activities. Tropical fast growing MPTs in this regard assume greater importance on account of their enormous potential to produce biomass and sequester atmospheric C. An investigation was conducted to evaluate biomass production and carbon sequestration potential of four fast growing multipurpose tree species viz, Albizia procera, Casuarina equisetifolia, Eucalyptus tereticornis and Gmelina arborea at 20 years stand age. Above ground C sequestration potential, of the four MPTs studied showed wide variation. Among the four species studied, A. procera and Casuarina equisetifolia recorded higher C sequestration potential, which was 189.93 Mg/ha and 185.85 Mg/ha, respectively. Except Gmelina all the tree species recorded high C sequestration, which is comparable to the earlier recorded values for tropical forests. Enhanced soil-C storage (0-30 cm) was also found under trees compared to treeless open.

### Financial Contracts and the Management of Carbon Emissions in Small Scale Plantation Forests

Coleman, Andrew

Working Paper 11-04, Motu Economic and Public Policy Research, Wellington.

Under the New Zealand Emissions Trading Scheme, foresters can obtain carbon units as their forests sequester carbon. If they sell these units as they are earned, the units must be repurchased when the forest is harvested, exposing foresters to price risk. This paper examines the way forward markets, futures markets, and carbon lending markets could be used to manage this risk. It argues that carbon lending markets are likely to be the most convenient form for foresters, as they allow the total returns from forestry investments to be increased with minimal risk. The carbon units can be lent to industrial firms or developers of new forests to minimise the carbon risk they face if they make carbon reducing investments. Link to download.

### Agroforestry and carbon sequestration: a global scenario.

Khan, I. A. Chaturvedi, O. P.

Journal of Tropical Forestry. 2007. 23: 3/4, 1-15

Rapid urbanization, industrial growth, change in land use patterns and increasing anthropogenic pressure has increased the carbon dioxide concentration in the atmosphere. The increasing concentration of CO2 in the atmosphere has caused global warming. In the past years, the amount of anthropogenic carbon dioxide emitted into the atmosphere is primarily because of expanding use of fossil fuels for energy. It has risen from pre industrial levels of 280 ppm to the present levels of over 380 ppm. Prediction of global energy use in the next century suggests a continued increase in carbon emissions and rising of CO2 in the atmosphere, unless major changes are not made in the way we produce and use energy in particular and how we mange carbon. The newest way to mange carbon is through carbon sequestration. Trees and other plant species in agroforestry system store carbon in its biomass and soil, and thus it has great potential in carbon sequestration and thereby mitigation of carbon. Intensified agriculture practices reported to lead a reduction in ecosystem carbon stocks mainly due to removal of above ground biomass as harvest and loss of carbon as CO2 through burning and/or decomposition. Evidence is emerging that agroforestry systems are promising management practices to increase above ground and soil C stocks and reduce soil degradation, as well as to mitigate green house gas emissions in the humid tropics. The potential of agroforestry (tree-based) systems to sequester C in vegetation is reported to be over 70 mg C/ha and up to 25 mg/ha in the top 20 cm of soil. In degraded soils of the subhumid tropics improved fallow agroforestry practices have been found to increase top soil C stocks up to 1.6 mg/ha. In sub Saharan Africa agroforestry is reported to have attainable rates of C sequestration in the range of 0.1 to 5.3 mg C/ha/r. Agroforestry also have an indirect benefit on carbon sequestration because it decreases the pressure on natural forest, which are the largest sinks of terrestrial carbon by meeting wood based needs from outside the forest and thus reducing destruction of forests. Another indirect avenue of carbon sequestration is through soil conservation using agroforestry technologies, which could improve floral bio diversity and thus storage of C in plants and soil. Carbon compounds are sequestered or accumulated by plants to build their structure and maintain their physiological process. The analysis of carbon stocks from various part of the world showed that significant quantities could be removed from the atmosphere over the next 50 years if agroforestry systems are implemented on a global scale. Agrihortisilviculture, agrisilviculture and silvipastoral agroforestry systems have been observed as the potential sinks for sequestering surplus carbon from the atmosphere in near future. Thus, the importance of agroforestry as a land use system is receiving wider recognition not only in terms of sustainability but also in issue related to climate change.

## Optimizing forest management in Finland with carbon subsidies and taxes

Pukkala, T.

Forest Policy and Economics. 2011. 13: 6, 425-434.

The carbon balance of forestry depends on the management, assortment distribution of harvested wood, end use of products, harvesting and processing releases, and substitution effects. This study developed a simulation-optimization system in which all these elements were incorporated. The simulation model consisted of a typical tree stand growth simulator augmented with a decomposition model for calculating carbon releases from the decomposition of deadwood, cutting residues, and products. The model allows managers and policy makers to analyze the effects of carbon pricing, substitution rates and assortment distributions, among others, on the optimal stand management, and estimate the carbon balances of alternative management systems. The case study calculations showed that the long-term carbon balance of a managed forest is negative without substitution effects. Substitution effects may convert the balance from negative to positive. The carbon balance of pine forest is clearly better than that of spruce forest, which is mainly because of the poor carbon balance of spruce pulpwood. If there are no substitution effects, forest management is a carbon source with 0.1 t ha-1 a-1 of carbon releases from pine forestry, and 0.5 t ha-1 a-1 from spruce forestry. With low substitution rates (50% of carbon in biofuel and 33% of carbon in sawn wood replace fossil carbon), spruce is carbon-neutral and pine is a clear sink with 0.38 t ha-1 a-1 carbon sequestration. The same sink effect can be obtained in spruce forestry with a higher substitution rate.

## The Congo Basin forests in a changing climate: Policy discourses on adaptation and mitigation (REDD+)

Olufunso A. Somorin, H. Carolyn Peach Brown, Ingrid J. Visseren-Hamakers, Denis J. Sonwa, Bas Arts, Johnson Nkem

Global Environmental Change xxx (2011) xxx-xxx

This paper discusses the discourses on climate change adaptation and mitigation that are currently at the forefront in the Congo Basin. On mitigation, the forests have enormous opportunities to contribute to the reducing emissions from deforestation and forest degradation (REDD+) mechanism. But the forest itself and its multiple dependent societies and sectors need to adapt to potential climate risks. Hence, actors are debating the design of climate change policy in the forest sector. Theoretically, we combine the agency-focus of frame analysis and discourse theory to analyze how different agents hold frames on climate change adaptation and mitigation policies in the region. This paper draws upon interviews with 103 different actors from government, international organizations, non-governmental organizations, research institutions and private sector in three countries: Cameroon, Central African Republic (CAR) and Democratic Republic of Congo (DRC). Three discourses were found on policy response to climate change in the forest sector: mitigation policy only, separated policy on adaptation and mitigation, and an integrated policy on adaptation and mitigation. The various frames articulated around each discourse by the coalitions include elements of: costs and benefits, scale of operation, effectiveness, financial resources and implementation mechanisms. Overall, the mitigation discourse, through its mix of actors, resources and interests seems to be stronger than the adaptation discourse. The paper finally outlines a number of implications of the discourses for policy design.

## Preliminary Evidence on Responses to the New Zealand Forestry Emissions Trading Scheme

Karpas, Eric, and Suzi Kerr

Motu Working Paper 11-09, Motu Economic and Public Policy Research, Wellington

New Zealand is the first country to implement a Greenhouse Gas Emissions Trading Scheme (ETS) that includes a forestry component as part of its contribution to global climate mitigation and as a strategy for compliance with the international climate change agreement the Kyoto Protocol. The goal of this paper is to provide information on forestry's role in the New Zealand ETS such that a foreign policymaker will be able to understand the intricacies and issues of the New Zealand system and be able to apply this knowledge to the design of his or her own ETS. This paper also aims to provide useful documentation of the system as it stands in 2010 for the New Zealand Parliament to use in future reviews of the system. The paper first provides a brief outline of the role of forestry in New Zealand's ETS, including the reasons for its inclusion in the greater system and the rules by which forestry operates within the system. This paper then analyses these rules, indicating the reasons behind the inclusion of certain provisions where the reasoning may not be immediately clear. Finally, this paper provides both quantitative and qualitative data on how well the system is working so far, whether the system is operating as predicted, and why any discrepancies between predicted and actual outcomes arise. Link to download.

### A landscape mosaics approach for characterizing swidden systems from a REDD+ perspective

Cornelia Hett, Jean-Christophe Castella, Andreas Heinimann, Peter Messerli, Jean-Laurent Pfund Applied Geography, Volume 32, Issue 2, March 2012, Pages 608-618

Swidden agriculture is often deemed responsible for deforestation and forest degradation in tropical regions, yet swidden landscapes are commonly not visible on land cover/use maps, making it difficult to prove this assertion. For a future REDD+ scheme, the correct identification of deforestation and forest degradation and linking these processes to land use is crucial. However, it is a key challenge to distinguish degradation and deforestation from temporal vegetation dynamics inherent to swiddening. In this article we present an approach for spatial delineation of swidden systems based on landscape mosaics. Furthermore we introduce a classification for change processes based on the change matrix of these landscape mosaics. Our approach is illustrated by a case study in Viengkham district in northern Laos. Over a 30-year time period the swidden landscapes have increased in extent and they have degraded, shifting from long crop-fallow cycles to short cycles. From 2007 to 2009 degradation within the swidden system accounted for half of all the landscape mosaics change processes. Pioneering shifting cultivation did not prevail. The landscape mosaics approach could be used in a swidden compatible monitoring, reporting and verification (MRV) system of a future REDD+ framework.

### Effectiveness and legitimacy of forest carbon standards in the OTC voluntary carbon market.

Merger, E. Pistorius, T.

Carbon Balance and Management. 2011. 6: 4,

In recent years, the voluntary over-the-counter (OTC) carbon market has reached a significant market volume. It is particularly interesting for forest mitigation projects which are either ineligible in important compliance markets or confronted with a plethora of technical and financial hurdles and lacking market demand. As the OTC market is not regulated, voluntary standards have been created to secure the social and environmental integrity of the traded mitigation projects and thus to ensure the quality of the resulting carbon credits. Building on a theoretical efficiency-legitimacy framework, this study aims to identify and analyse the characteristics and indicators that determine the efficiency and organisational legitimacy of standards for afforestation/reforestation carbon projects. The results show that the market is still in an immature stage characterized by significant fragmentation: on the one hand, the new standards act as 'market-making' intermediaries and contribute to the quality and transparency of the OTC market. On the other hand, the variety of different standards imposes new hurdles for their efficiency and creates confusion instead of confidence among potential buyers. However, despite the lacking legitimacy of the standards, they already constitute an crucial element of the voluntary market and provide valuable learning experiences for existing and planned compliance markets - especially if challenging projects of the forest sector are to become an integral component of the efforts to mitigate greenhouse gas emissions, e.g. under REDDplus.

## V. PUBLICATIONS, REPORTS AND OTHER MEDIA

## Dangerous Climate, A Brazil-UK analysis of Climate Change and Deforestation Impacts in the Amazon

INPE and the Met Office Hadley Centre

In this project, INPE and the Met Office have combined their expertise in climate modelling and in the climate of Brazil to deepen understanding of how this may change in the future. The report.

## Making REDD+ cross-sectoral: why, how and what are the potential socio-economic impacts? REDD-net

The need for REDD+ to coordinate and involve multiple sectors involved in driving deforestation and forest degradataion is becoming increasingly important. To ensure national ownership and political and social sustainability REDD+ will also need to be harmonised with the objectives of other key economic sectors such as agriculture and energy. This policy brief outlines some key policy options that encourage synergies between REDD+ and the agriculture and energy sectors, and their potential socio-economic impacts. The brief.

# Mainstreaming Climate Change Adaptation into Development Planning: A Guide for Practitioners UNDP and UNEP

The guide proposes a framework consisting of three components: identifying entry points into development planning and making the case for mainstreaming climate change adaptation; integrating adaptation issues into an ongoing policy process such as a national development planning or sectoral strategies; and mainstreaming climate change adaptation into budgeting and financing, as well as implementation and monitoring. The guide.

### Carbon righteousness: how to lever pro-poor benefits from REDD+

IIED

This briefing discusses the opportunities and challenges involved in the creation of a new form of private property that can be bought and sold in domestic and international markets — the 'carbon right'. It looks at how equity and fairness can be built into this new commodity so that carbon trading schemes and REDD+ projects support the rural poor who rarely hold formal land ownership or tenure rights but are key players in putting sustainable forest management into practice on the ground. The brief.

#### The Root of the Problem—Drivers of Deforestation

UCS

In this report, the Union of Concerned Scientists explains these drivers and shows that they have changed fundamentally in the twenty-first century. The report focuses on the economic agents that play a critical role in deforestation. The report.

### Building Forest Carbon Projects - Step-by-Step Overview and Guide

Katoomba Incubator

To facilitate the development of forest carbon projects, the Katoomba Incubator at Forest Trends has compiled strategic guidance to emerging best practices. Drawing on practical experiences, this series of documents includes a Step-by-Step Overview and detailed guidance documents on issues, tools and resources covering an array of project development needs. The publication/series.

## Estimating Reference Emission Level and Project Emission Level for REDD Projects in Tropical Forests

University of Hyogo

Working paper article on methods for setting Reference Emission Level and Project Emission Level in REDD+'s Sustainable Forest Management projects. The article.

### Strengthening Local Resilience to Climate Change

Prolinnova

This Policy brief describes how Grassroots innovation in the face of climate change provides a promising starting point for community-led adaptation. More.

### Grassroots Capacity Building for REDD+

**RECOFTC** 

This brief outlines RECOFTC's approach to expanding the information available to grassroots stakeholders, identifying knowledge gaps at the local level and sharing vital information through the Norad-sponsored Grassroots Capacity Building for REDD+ program in Indonesia, Lao People's Democratic Republic (Lao PDR), Nepal, and Vietnam. The brief.

# Analysis of the Potential of Sustainable Forest-based Bioenergy for Climate Change Mitigation CIFOR

This working paper presents an improved analysis of the potential of biofuels for climate change mitigation. More.

## REDD+ and Agriculture: a Cross-sectoral Approach to REDD+ and Implications for the Poor

REDD-net

The paper outlines the linkages between forests and agriculture, and the need for REDD+ to effectively address the drivers of deforestation and forest degradation from the agriculture sector. It goes onto discuss the potential policy options for doing this, including their potential socio-economic impacts and how policy design and targeted REDD+ revenues can be used to mitigate these. The paper.

### REDD+ and Energy: a Cross-sectoral Approach to REDD+ and Implications for the Poor

REDD-net

This paper examines the linkages between the energy sector and forests at local to global levels, covering wood fuel use and the competition for land between forests and biofuel feedstock crops. The paper suggests a number of policy options that may be part of a REDD+ strategy that also contributes to energy sector objectives. The potential implications for the poor are highlighted and the ways in which policy design and targeted REDD+ revenues can be used to mitigate these suggested. The paper.

## VI. JOBS

### REDD+ Project Manager,

LEAF/Winrock International

Based in Bangkok, Thailand the person will be responsible for helping identify, establish, implement and monitor REDD+ activities in Thailand. He/she will work in close collaboration with the Forest Management and Climate Change Technical Advisor, GIS Specialist, M&E Specialist, Winrock's US-based carbon scientists, and field-based REDD+ teams. The expert will mobilize field teams, monitor on-the-ground performance, coordinate with donor and partner organizations, and ensure achievement of project results and objectives. The position will require frequent travel to field location sites within the project area. More.

### Director, Forest and Climate

M/M/F

World Wildlife Fund (WWF), the global conservation organization, seeks a Director of Forests & Climate to join its US-based climate change team. The director will be the lead for forest carbon work within the US office and responsible for designing and implementing a forest carbon program. More.

## VII. ANNOUNCEMENTS

### FSC forest management and carbon auditing

University of Padova

TeSAF Department and Etifor srl present the Intensive Training Course "the forest management auditor of tomorrow - how to integrate fsc forest management and carbon auditing". More.

### Specialized Library on Climate Change (SLCC)

**TERI** 

The SLCC is a TERI initiative under the aegis of the Framework Agreement for the Programme of Cooperation on Energy, Environment, and Climate Change sponsored by the Ministry of Foreign Affairs, Government of Norway. The SLCC, a component of the Library and Information Center at TERI, houses a collection of resources in the following areas of climate change: 1. Policy issues, 2. Science of climate change, 3. Impacts, vulnerability and adaptation, 4. Greenhouse gas emissions and mitigation, 5. Economics of climate change, 6. Technological interventions. The SLCC holds a specialized collection of books, journals and CD-ROMs on various issues related to climate change, both in print and electronic form. As part of the expanding the resource base of SLCC and to increase the accessibility of electronic library resources, SLCC facilitation center has been set up at TERI Southern Regional Centre in Bangalore. More

#### REDD+ online database

**IGES** 

The Institute for Global Environmental Strategies (IGES) has just expanded its REDD+ Online database (http://redd-database.iges.or.jp/redd/) and added new materials. The database now holds 25 profiles of REDD+ projects, a matrix that provides a snap shot of each project for easy look up and comparison, and a report on the UN Climate Change Conference in Bonn.

### Negotiating climate change workshop

University of Zurich

Organized on 28 September 2011 by the Center for Comparative and International Studies (CIS), ETH and University of Zurich. The main intention of the workshop is to discuss outcomes of the research project "Negotiating Climate Change" carried out by a team of political scientists and economists at the University of Zurich, the ETH Zurich and the Graduate Institute, Geneva, with international experts and other interested participants. The project is financed by the Swiss Network for International Studies (SNIS). More.

## **CLIM-FO INFORMATION**

The **objective** of CLIM-FO-L is to compile and distribute recent information about climate change and forestry. CLIM-FO-L is issued monthly.

Past issues of CLIM-FO-L are available on the website of FAO Forest and Climate Change:

http://www.fao.org/forestry/climatechange/en/

For technical help or questions contact CLIM-FO-Owner@fao.org

The Newsletter is compiled by Jesper Tranberg and Susan Braatz.

We appreciate any comments or feedback.

#### How to subscribe/unsubscribe

- To join the list, please send an e-mail to CLIM-FO-Owner@fao.org containing the message "SUBSCRIBE CLIM-FO-L". Leave the subject line blank.
- To unsubscribe, please send an e-mail to mailserv@mailserv.fao.org, leaving the subject line blank and containing the following message: UNSUBSCRIBE CLIM-FO-L

Your information is secure - we will never sell, give or distribute your address or subscription information to any third party.

#### How to contribute

We welcome subscribers' contributions of news, articles, publications and announcements of events. Once on the list, to make a contribution please contact the following address: CLIM-FO-Owner@fao.org

We thank everyone for their contribution.

#### Disclaimer

The author does not guarantee the accuracy or quality of the content of the compiled information.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The mention or omission of specific companies, their products or brand names does not imply any endorsement or judgement by the Food and Agriculture Organization of the United Nations.