

# FORESTRY, BIOMASS & SUSTAINABILITY CONFERENCE

LONDON, 13 & 14 MAY 2010

*Investment Opportunities and Carbon Reductions*

*Peter Massey*



*Commissioned by SPGS, 2010*

# **FORESTRY, BIOMASS & SUSTAINABILITY CONFERENCE LONDON, 13 & 14 MAY 2010**

## **Investment Opportunities and Carbon Reductions**

**Conference organisers – Environmental Finance.**

**Location - Hallam Conference Centre, London W1, UK.**

### **Objectives and Benefits**

The objective of the conference was to provide up-to-date analysis of the latest developments in policy, economics and financing of biomass and forestry projects, and to help attendees identify new investment opportunities and risks in these rapidly growing markets.

The programme was designed for and attended by forestry sector investors, renewable and fossil fuel energy companies, financial institutions, project developers, policy makers, industry associations, NGOs, and foundations.

The key benefits of the conference were to provide a forum for current key players to address the conference and for attendees to gain a deeper understanding of the forestry and biomass sectors, including carbon finance.

Attendees were able to meet and do business with project developers, forestry owners and financiers and other key players in the forestry and biomass sector. The format was highly interactive with plenty of questions and networking during breaks.

The conference was well attended and the list of attendees is attached together with the programme.

As the presentations at the conference are available on line under <http://www.environmental-finance.com/pages/fbs10-presentations>, summaries of each speaker's presentation will not be given here. The main points which arose which have particular relevance to SPGS are recorded under the following headings:

- Current status of the forestry sector
- The carbon credits market
- Wood energy sector

## **Current status of the forestry sector**

The keynote address was given by the director general of the forestry commission in the UK. He emphasised the key role of forestry in terms of providing an investment asset class with strong asset backing and with essential environmental and social benefits including mitigation of climate change.

Forestry was seen to play a pivotal climate change role. Conservation of existing forests and the establishment of sustainable forests to sequester carbon has a positive benefit whereas deforestation is a major contributor to global warming. The sector was seen as an environmental, social and economic key stone offering many investment opportunities.

Sustainability, sound science and robust standards were identified as critical success factors. These are woven into the very fabric of the SPGS project design and are at the center of SPGS's success.

Much was made of forestry's role in sequestering carbon and the growing importance of developing sustainable energy power plants fuelled by wood. This is a rapidly expanding sector encouraged by grants in many countries including the UK. A wide range of forest types in the UK deliver cost-effective abatement –typically at £25 a tonne/CO<sub>2</sub>.

In order to benefit from the current opportunities it is necessary to develop mechanisms and partnerships and a need for innovation and collaboration.

Greater focus on legality in the timber trade, a recognition that forestry ought to be rewarded for its environmental role and an expectation that carbon credits may enhance returns were all seen as positive trends.

Forest and land use based investments are likely to increase due to:

- growing populations,
- increasing competition for resources: land, food and forest products
- Increase in bio-energy and biomass demand
- Differentiation in relation to other investments: low correlation with other asset classes and economic trends
- Increasing awareness over sustainability increasing interest in philanthropic investment in sustainable land management
- Growing concerns over sustainability and climate suggest that good forestry will be rewarded,
- A shift towards a biomass-based economy from the traditional fossil-based society

On the investment side there are two megatrends influencing timberland investing:

- A shift towards a biomass-based economy from the traditional fossil-based society driven by climate change and other environmental policies (global, EU, national), and reduced stocks of traditional energy.
- Growing economic importance of emerging markets with China and India at the forefront.

A growing global supply demand gap is evident for those studying future trends driven by expanding populations, increasing consumption per capita due to increased prosperity, climate change drivers and the move towards sustainable energy sources. There is an impending shortage of wood biomass to supply the new biomass energy plants which will have to source raw material internationally.

The timber investment scene and markets are increasingly international in nature as supplies tighten and timber is traded internationally.

Although the relevance may not be immediately obvious, there is a great deal here to encourage SPGS. There is a good fit between the design of SPGS and current key sector drivers. This offers the potential for further funding and for the development of forest industries to supply current markets.

### **Carbon Credits**

The forestry carbon credit arena remains as confusing and complicated as ever. In order to navigate the twists and turns required to fully assess and possibly secure carbon funding would require a specialist consultant but a successful outcome for SPGS would be far from certain. Discussions were held with specialists at the conference and subsequently with a consultant in Nairobi.

Forestry remains a relatively small part of the carbon credit market. In 2008 the market was valued at only \$150m, of which only \$11m was through the formal CDM market, the balance of transactions being through the informal market. Typically the value of the voluntary transactions is from \$6 - \$10 of CO<sub>2</sub> offset.

### **CDM – Clean Development Mechanism**

- The main formal vehicle for carbon credits is the CDM – Clean Development Mechanism. However, the number of transactions consummated under this mechanism has been disappointingly small.
- A significant barrier to obtaining finance is the very high transaction cost associated with the complex compliance requirements.
- CDM funding appears to only be for projects which would be viable with CDM funding but not without it. This alone would preclude SPGS plantations.
- There is no retrospective funding for projects already underway.

## **REDD – Reduced Emissions from Degradation and Deforestation.**

- REDD arose from the action plan agreed at the 2007 UN Framework Convention on Climate Change Conference in Bali.
- The goal is to create a monetary value for the carbon stored in forests under threat of deforestation or degradation, allowing developing countries to be paid to protect forests rather than cutting them down or allowing them to be degraded. This was a significant oversight in the original Kyoto conference on climate change.
- REDD is primarily to protect and conserve existing forests, particularly natural forests and hence not geared towards the activities of SPGS.
- REDD is in the early stages of development by potential host Governments and is likely to involve bilateral or multilateral agreements between governments. The first stage will be pilot projects in participating countries..
- The only possibility would be for SPGS to seek REDD support for buffer zones or natural forest conservation areas.

The recent REDD+ initiative adds the following to REDD in developing countries.

- Sustainable forest management
- Conservation and enhancement of carbon stocks in existing forests
- Afforestation/reforestation

Halving emissions from the forestry sector by 2030 would cost around \$17 – 30 pa billion compared to the cost of climate change from forest degradation put a \$1 trillion pa.

### **The voluntary carbon offset market**

The voluntary carbon offset market functions outside of Kyoto, and enables businesses and individuals to offset their emissions, either by purchasing offsets that are created in the voluntary market or that are created through the CDM.

Unlike the CDM, there are no established rules for the voluntary carbon offset market. The voluntary carbon market enables those in unregulated countries that have not ratified Kyoto (such as the USA) to offset their emissions. The voluntary carbon offset market could be worth \$2.2 billion (based on minimum value of \$6.5 / tonne)

Whilst carbon funding for forestry remains complex the potential application of carbon finance to afforestation in Uganda merits further investigation. SPGS should identify candidate organisations, of which Uganda Carbon Bureau is one, that are willing to invest some time and effort in exploring how to take this forward in the Ugandan context.

SPGS has a disadvantage in that monocultures are not popular with carbon credit buyers.

Preliminary discussions, summarised above, were held with Gareth Phillips at Sindicatun Carbon Capital Ltd in London and Tom Morton at J P Morgan Climate Care in Nairobi.

### **Wood Energy Sector**

The economic importance of the wood energy sector is generally poorly appreciated. Studies by IIED in Tanzania, for example, show the value to be US\$ 650 million compared to coffee and tea which are valued at US\$ 60 million and US\$ 45 million respectively. In Malawi biomass energy is the 3<sup>rd</sup> largest industry after tobacco and tea employing 133,000. 13 million are directly employed in the sector in Southern Africa alone –30 million globally.

The sector is generally dismissed (deforestation, drudgery, health risk etc), often criminalised and taxes go uncollected. SPGS could play an important role in the formalisation of bio energy in Uganda, attracting bioenergy generating investment and accessing carbon credits in a well planned and financed energy sector alongside wood processing plants. The transition from informal to formal will require cooperation between growers, generators and government to produce the right enabling environment for the sector to thrive.

At first glance bio energy in the form of large scale dendrothermal plants or small scale biogas generators appears to be expensive compared to traditional fossil fuel coal and gas generation. However, once the environmental cost of fossil fuels, and the advantages of generation on site in remote areas are factored in, a far more favourable picture emerges. This is particularly relevant to the rural areas where SPGS operates.

IIED have undertaken detailed studies of alternative energy sources in developing countries including Uganda where they found 25 kW wood-based gasifiers are cheaper (US\$ 0.11 /kW) compared with solar panels (US\$ 0.19 /kW) or diesel generators (US\$ 0.39 / kW). This would indicate a real opportunity for SPGS growers to supply wood to rural electricity supply generators as a sound business concept with possible carbon credits. This could provide a vital source of early cash flow.

### **In Conclusion**

- SPGS is developing within the context of a strong and increasing demand for forest products internationally driven by:
  - expanding populations and increased economic activity, particularly in India and China.
  - climate change drivers and the associated carbon credit market
  - the push for sustainable products

This bodes well for SPGS in developing forest industries to supply the local, regional and international timber product markets.

- The carbon credit market remains complex, difficult to access and has high transaction costs. SPGS is not an obvious candidate for carbon credit funding and specialist assistance will be required to assess the options. The informal market is the most likely route for SPGS. The potential for generating saleable credits from sustainable energy generated from SPGS raw material is good.
- There is a real increase in interest and investment in sustainable energy internationally. Wood energy power plants play a significant role in this sector. The economics of wood fired power plants improve significantly in remote locations where it is expensive to transport fossil fuels and it is difficult to capture the economies of scale associated with large power plants. SPGS is ideally situated to become a supplier of raw material for rural energy supply in Uganda.

Peter Massey

*20 May 2010*

# Forestry, Biomass & Sustainability 2010 Programme

**Day One: Thursday, 13 May**

**8.15** Registration & networking breakfast

**8.45** Opening of conference & chairman's welcome address

**Leslie L. Durschinger**, *Founder & Managing Director, Terra Global Capital*

**9.00 KEYNOTE ADDRESS: Outlook for policy and economics of forestry and biomass**

**Tim Rollinson**, *Director General, Forestry Commission of Great Britain;*  
*Chairman, Global Partnership on Forest Landscape Restoration*

**9.30 PANEL DISCUSSION: Investing in sustainable forestry**

- Forestry as an asset class
- Sustainability criteria
- Investor trends and drivers
- Analysis of income streams from forests
- Assessing potential returns
- Aims and achievements of new forestry funds
- Where next for sustainable forestry investment?

**Moderator: Mark Campanale**, *Director, Four Elements Capital*

**Pedro Moura Costa**, *Senior Carbon Markets Specialist, former President & Founder of EcoSecurities*

**Marko Katila**, *Partner, Dasos Capital*

**Daniel Davidson**, *Feedstock Director, Helius Energy*

**Simon Glossop**, *Partner, CF Partners*

**10.40** Morning break & networking

**11.10 Public vs private funding of forestry protection**

**Alice Chapple**, *Director, Sustainable Financial Markets, Forum for the Future*

**11.40 Forestry and the carbon markets**

Outcome from the UN climate change conference in Copenhagen on reducing emissions from deforestation and degradation (REDD) in developing countries and the practical implications for

business and industry

**Christopher Webb**, *Manager, Sustainability and Climate Change, PwC*

**12.10 Ways of linking forestry with the different emissions trading markets around the world**

**Monique Lussier**, *International Climate Change Advisor & Attorney, Irbaris*

**12.45** Lunch & networking

**14.15 Hedging and managing risk of forestry assets**

- Modelling risk in forestry
- Risk transfer for forestry, forest biofuels and forest carbon
- Insurance of forestry assets

**Phil Cottle**, *Managing Director, ForestRe*

**14.45 CASE STUDY: Forestry assets for long-term investors**

- Pension funds and other instruments

**Christian del Valle**, *Director, Environmental Markets, BNP Paribas*;  
*Vice-Chair, REDD Working Group, CMIA*

**15.15 CASE STUDY: Forestry and W2E (waste to energy) investing - capturing returns and sustainability through globalisation and technology transfer**

**Hendrik Verest**, *Managing Director, FourWinds Capital Management*

15.45 Afternoon break & networking

**16.10 CASE STUDY: New Zealand carbon forestry project**

- Overview of the market
- Risk management of a carbon forest

**Forbes Elworthy**, *CEO, Craigmores Funds Group*

**16.40 Examining different standards for forest carbon projects**

- Overview of standards and how they function with forestry projects
- What role can registries play in future?

**David Antonioli**, *CEO, Voluntary Carbon Standard Association*

17.15 Closing remarks & end of Day One

**Day Two: Friday, 14 May**

8.00 Registration & networking breakfast

8.45 Opening of conference & chairman's welcome address

**Mark Campanale**, *Director, Four Elements Capital*

**9.00 Sustainable biomass as a driver in forestry protection, employment and poverty reduction**

**Duncan Macqueen**, *Team Leader - Forests, International Institute for Environment and Development (IIED)*

**9.30 PANEL DISCUSSION: Connecting forestry, biomass and carbon**

- Biomass projects in the CDM
- Role of the carbon markets in protecting forests
- Methane capture projects in the CDM
- Biomass projects for small-scale power generation
- Bio-char – assessing the carbon sequestration potential

**Moderator: Gareth Phillips**, *Chief Climate Change Officer, Sindicatum Carbon Capital*

**Michael Dutschke**, *Director, Biocarbon Consult*

**Noel Forrest**, *Analyst, MGT Power*

**Deepak Rughani**, *Co-director Biofuelwatch, Global Forest Coalition*

10.30 Morning break & networking

**11.00 Financing mechanisms for biomass projects**

- Regulatory drivers
- Bankability aspects (revenue drivers, fuel supply, contracting structure, technology risk, etc)

**Dennis van Alphen**, *Head of Renewables, NIBC Bank*

**11.30 Biomass for heat and power - using the resource efficiently**

- Regulatory support for biomass CHP projects
  - RWE's 50MW biomass CHP project at Tullis Russell
- Richard Bonsall**, *Head of Commercial, UK Biomass, RWE Npower*

#### **12.00 Contractual and capital risks in energy crop biomass projects**

- Competitive analysis of energy crops vs forestry biomass
  - Supply chains and capacity building incentives
- Gavin Maxwell**, *Senior Strategy Partner, Coolfin Partnership/Tomax*

**12.30** Lunch & networking

#### **13.45 FOUR INTERACTIVE ROUNDTABLES**

1. Investment opportunities in sustainable forestry  
Moderator: **Forbes Elworthy**, *CEO, Craigmore Funds Group*

2. Investment opportunities in sustainable biomass  
Moderator: **Gavin Maxwell**, *Senior Strategy Partner, Coolfin Partnership/Tomax*

3. Investment opportunities in sustainable biofuels  
Moderator: **Andrew Britton**, *Manager, Climate Change and Sustainability Services, Ernst & Young*

4. Current and future shape of the forestry carbon markets and REDD  
Moderator: **Alexander Koch**, *Associate Programme Officer, United Nations Environment Programme*

#### **15.00 Sustainability and biofuels**

- Overview of the Renewable Energy Directive requirements for sustainable biofuels
  - Implications for biofuels suppliers
  - Defining the business response
- Andrew Britton**, *Manager, Climate Change and Sustainability Services, Ernst & Young*

#### **15.30 Forest and sawmill residues – waste or resource?**

Competing demand for residues, e.g. pulp, paper and solid wood products vs biopower and biofuel  
**John Bingham**, *Director, Hawkins Wright*

**16.00** Chairman's closing remarks & close of conference

# Forestry, Biomass & Sustainability 2010–

Delegate list  
London, 13 & 14 May

David	Aitken	Craigmore
Max	Aitken	Estover Energy
Alastair	Anton	Netherlands Development Organisation
David	Antonioli	Voluntary Carbon Standard Association
Miles	Austin	Carbon Markets & Investors Association
Jim	Ball	Commonwealth Forestry Association
James	Barrett-Miles	Ernst & Young
Melanie	Barry	InterSilva
John	Bingham	Hawkins Wright
Steven	Bland	Environmental Finance
David	Bole	Forestry Commission
Richard	Bonsall	RWE npower
Steven	Bonsey	Carbon Trust Enterprises
Isabelle	Braly-Cartillier	ORBEO
Theo	Brinksma	Eneco
Andrew	Britton	Ernst & Young
Mark	Broadmeadow	Forestry Commission
Nick	Brooks	Mycologix
Ivan-Serge	Brouhns	Athamas
Reg	Brown	Craigmore Funds Group
Mark	Campanale	Four Elements Capital
Tracey	Campbell	Forest Footprint Disclosure
Andy	Carling	E.ON
Rebecca	Carr	Forestry Commission Scotland

Shireen	Chambers	Institute of Chartered Foresters
Sophie May	Chapman	Cambridge University
Alice	Chapple	Forum for the Future
Matthew	Colvan	Environmental Finance
Silvana	Comino	myclimate - The Climate Protection Partner
Vanessa	Connolly	Building Research Establishment
Graham	Cooper	Carbon Finance
Phil	Cottle	ForestRe
Chris	Cundy	Carbon Finance
Daniel	Davidson	Helius Energy
Thomas	de Mevius	Athamas
Airy	de Murga	Athamas
Christian	del Valle	BNP Paribas
Edward	Downs	E.J. Downs Forestry
Emmanuel	Drujon	Alternative Carbon
Leslie	Durschinger	Terra Global Capital
Michael	Dutschke	Biocarbon Consult
Forbes	Elworthy	Craigmore Funds Group
Stefan	Essel	GTZ
Jane	Faulkner	Argus Media
Noel	Forrest	MGT Power
Patricia Vidal	Frederighi	University of Gothenburg
Francois	Gigante	Bunge
Simon	Glossop	CF Partners
Ben	Goh	E.ON
John	Grayson	Enviromarket
Leonie	Greene	Renewable Energy Association
Toni	Griffiths	Enagri

Andy	Hall	Forestry Commission
Julien	Halley	Halley Invest
Tim	Hardwick	Earthscan
Michael	Harfoot	AEA
Andy	Harmer	John Laing Investments
James	Hepburne Scott	Alba Trees
Johannes	Hermann	AllMerus Energy
Paul	Hill-Tout	Forestry Commission
Lars	Holm Simonsen	The International Woodland Company
Max	Horstink	Orbeo Spain
Gareth	Hughes	Beetle Capital Partners
Malcolm	Hutton	Environmental Resources Management
Laura	Jones	Forestry Commission
Sachin	Kapila	Shell International
Marko	Katila	Dasos Capital
Hoon	Kim	Korindo Group
Jong-ju	Kim	Korindo Group
Alexander	Koch	United Nations Environment Programme
Pimhein	Kool	FMO-Netherlands Development Finance
Sibel	Korhaliller	Int. Institute for Environment & Development
Katie	Kouchakji	Carbon Finance
Tomasz	Kowalczewski	Ministerstwo Źródołowa
Leticia	Labre	Carbon Markets & Investors Association
Peter	Laudano	Wood4Life Participacoes
Andrew	Leslie	AJ Leslie
Jonathan	Lethbridge	CIBC World Markets
Kai	Lintunen	Finnish Forest Association
Monique	Lussier	Irbaris

Hamish	Macleod	Howie Forest Products
Duncan	MacQueen	Int. Institute for Environment & Develop
Karin	Malmberg	Principles for Responsible Investment
Hy	Martin	International Consultancy Europe
Peter	Massey	Sawlog Production Grant Scheme
Navin	Mathur	Bunge
Gavin	Maxwell	Coolfin Partnership
Ellen	Mayer	Oekom Research
Mardi	McBrien	UK Department for Energy & Climate C
Jess	McCabe	Environmental Finance
Katy	McCombe	Met Office
Bob	Mcintosh	Forestry Commission Scotland
John	Metzler	RBS Sempra Energy Europe
Alidad	Moaveni	AllMerus Energy
Pedro	Moura Costa	
Martin	Munkesoe	The International Woodland Company
Richard	Murphy	Imperial College London
Roger	Naylor	The International Woodland Company
Hazel	Newman	EGGER
Mark	Nicholls	Environmental Finance
Matthew	Norman	Tellus
Wanda	Nyirfa	Saskatchewan Research Council
Pedro	Ochoa	European Investment Bank
Jean-Baptiste	Oldenhove	Halley Invest
Olivia	Palin	Acclimatise
Kwangyul	Peck	Kwangyul Peck & Associates
Selina	Perry	Environmental Finance
Simon	Petley	EnviroMarket

Gareth	Phillips	Sindicatum Carbon Capital
Andrew	Pidden	CRA Management
Simon	Prince	Silvigen Bioenergy
Oliver	Raess	Tellus
Helga	Rainer	Arcus Foundation
Martin	Reckmann	Kompetenzzentrum Naturraummanage
Tim	Rollinson	Forestry Commission
Deepak	Rughani	Global Forest Coalition
Alastair	Sandels	Fountain Forestry
Jerome	Schoumann	Craigmore Funds Group
Laurier	Schramm	Saskatchewan Research Council
Panna	Siyag	UNFCCC Secretariat
Pat	Snowdon	Forestry Commission
David	Taylor	Tanarus Publications
Alistair	Thomas	CF Partners
Carolina	Torres	Proteca Florestal
Gavin	Towers	Itochu Europe
Jen	Tweddell	Shell Downstream Services Internation
Dennis	Van Alphen	NIBC Bank
Hendrik	Verest	FourWinds Capital Management
David	Vincent	Ethical Investments
Georg	von Kriegsheim	AllMerus Energy
Moritz	von Mecklenburg	Nordcapital New Energy & Cie.
Phil	Wallace	E.ON
Christopher	Webb	PricewaterhouseCoopers
Tony	Weighell	Joint Nature Conservation Committee
Sally-Ann	Young	Drax Power
Mark	Zubko	Terra Firma Capital Partners

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