

# green shoots

The EcoPlanet Bamboo Newsletter

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## NEWS

# 2012 Overview

2012 has been an exciting year for our growing team. Expansion into a new geographic region, development of a biomass research laboratory, doubling of our plantation area in Nicaragua and South Africa and accreditation by major international institutions have all contributed to positioning EcoPlanet Bamboo as a global leader in the development of bamboo as a sustainable alternative fiber.

Lessons learned over the past three years have been used to develop standard operating procedures for all aspects of bamboo plantation development and management, through which best practice for the industry globally has been attained. With more than 6,000 acres of what was degraded, deforested land now converted into flourishing bamboo forests, 2012 has seen EcoPlanet Bamboo become the largest commercial bamboo plantation entity outside of China, and our expansion has moved into a new phase. Planting of a 2013 500 acres of a 3,500 acre expansion in Central America (Nicaragua) has been completed. This latest expansion is in partnership with Premier Group, the Isle of Man based Fund manager of publicly traded Eco Resources Fund (ERF). EcoPlanet Bamboo has agreed to an initial \$20 million long term debt package from ERF and has been extremely pleased with this partnership.

Employment structures have moved from high numbers of temporary workers during planting phase to a more stable permanent administration and maintenance team of approximately 400. Continuing our efforts to uplift women, our workforce comprises 28% female employees and 100% of each regional subsidiary including through senior management are citizens of the relevant country of operation.

In addition to tangible expansions in 2012, EcoPlanet Bamboo became the first company to receive FSC™, VCS and CCBA certification for commercial bamboo plantations. Certification under the Forest Stewardship Council™ (FSC) opens market access to U.S. and multinational timber manufacturers, enabling bamboo as a sustainable alternative fiber to reduce pressure on natural forests. Validation by the Rainforest Alliance of an initial 816,000 tons of carbon credits makes EcoPlanet Bamboo the first company in the world to have utilized a carbon sequestration methodology for bamboo validated and approved under the VCS. Furthermore the issuance of gold level CCBA certification for our social and biodiversity impact makes our founders proud of the entire organization for working hard to achieve something unique and beneficial to the world.

In short, 2012 has been a year of unprecedented and fulfilling growth. With established teams, infrastructure, and an ever expanding base of knowledge and research, EcoPlanet Bamboo has laid the foundation to continue to drive the industry in a sustainable and responsible manner.



# Rainforest Alliance Certifies Nicaraguan Plantations Under FSC

With a global focus on forest protection, the past few years have seen an increasing shift in demand for timber and wood products derived from plantation forests and particularly those that have been sustainably certified. The Forest Stewardship Council (FSC) represents the most stringent global standard for the sustainable management of forests, and is widely accepted by consumers across the developed world.

Marking a major milestone, EcoPlanet Bamboo has become the first Company globally to apply the FSC standard to plantations of clumping bamboo, with our Rio Siquia and Rio Kama plantations receiving FSC Forest Management certification. Such certification provides increased market access and allows for semi-processed bamboo from these plantations to be sold into existing timber manufacturing industries across the United States, Latin America and Europe.

The successful adoption of the FSC's 10 Principles and Criteria for sustainable forest management set such certification as the benchmark for the development of the bamboo plantation industry globally.

For more on our FSC certification visit

[EcoPlanetBamboo.com/fsc-certified-bamboo-plantations](http://EcoPlanetBamboo.com/fsc-certified-bamboo-plantations)



The mark of  
responsible forestry



# Driving The Bamboo Agenda In Climate Change



## Global Achievement for Bamboo Carbon Measurement

For many years INBAR (International Network for Bamboo and Rattan) and other bamboo related entities have attempted to define a scientifically rigorous methodology for the quantification of the sequestration of atmospheric carbon dioxide of bamboo, through active biological growth. However, despite these efforts, until the validation under the Verified Carbon Standard (VCS) of the carbon benefits of EcoPlanet Bamboo's Rio Siquia and Rio Kama plantations, no such methodology had been accepted under international standards.

Utilizing proprietary software and modeling system, EcoPlanet Bamboo has become the first Company to successfully quantify and analyze the growth pattern of bamboo and provide a comprehensive breakdown of the associated carbon sequestration benefits over the lifetime of a plantation under a sustainable harvesting regime.

Validation under the VCS by the Rainforest Alliance enables EcoPlanet Bamboo to monetize an initial 816,000 tons of carbon dioxide sequestered over a 10 year period through the reforestation of 3,373 acres of degraded lands with bamboo forests.

## EcoPlanet Participates at the UN Climate Change Meetings

A delegation from EcoPlanet Bamboo travelled to Doha, Qatar to participate in the UN Framework Convention on Climate Change (UNFCCC) and represent bamboo within the timber industry at the most influential global event on forests, Forest Day 6.

As part of the annual Conference of the Parties (COP) to the UNFCCC, Forest Day serves as a platform for ensuring forests are high on the climate change agenda, and for driving that agenda with informed knowledge and experience from global experts. Forest Day 6 focused on the theme of "Living Landscapes: Solutions for a Sustainable World", the outcome of which stressed the need for private sector engagement in future forest based initiatives.

Forest Day 6 was attended by over 87 countries including 220 negotiators from UNFCCC country delegations. EcoPlanet Bamboo was one of only a few businesses invited to attend. Our participation illustrated how a for-profit company could drive a growing industry with sustainable practices that tie into the objective of the conference's aim for strong social and biodiversity safeguards enhancing rather than sacrificing financial return.

# Commitment To Research

## State of the Art Biomass Testing Facility

EcoPlanet Bamboo has completed the construction of and opened its testing facility and research laboratory, located on our Kowie Bamboo Farm in South Africa. Featuring state of the art equipment EcoPlanet Biomass Labs offers a range of biomass feedstock testing including proximate analysis of coal, determination of total carbon, hydrogen and nitrogen content for solid mineral fuels, and determination of ash content for solid biofuels to clients across South Africa and internationally.

In addition to offering external testing facilities, the Lab has a team dedicated to conducting ongoing research and development on a range of bamboo species for EcoPlanet



Bamboo, providing us with unparalleled data on the potential role of bamboo within the growing global market for energy and carbonized products.

Visit [www.ecoplanetbiomasslabs.com](http://www.ecoplanetbiomasslabs.com) for more information.

## Driving Sustainable Industry Growth Through R&D

In addition to the Biomass Labs, scientific research constitutes an active component of all operations. The below are a few examples of ongoing work.

- Our Rio Escondido farm in Nicaragua provides the setting for agroforestry and intercropping experiments. More than 100 acres have been committed to bamboo trial plots intercropped with commercial crops including teak, cocoa, and indigenous fruit trees, while additional research areas assess the impact of leguminous plants on the growth of bamboo
- Our Rio Kama farm hosts a bambusetum, a bamboo museum with species of bamboo from around the world. The site acts as a research facility for understanding the characteristics and growth of these bamboos
- EcoPlanet Bamboo has partnered with US based RPM Global Solutions to test its patented RPM (Root Production Methodology) technology on 5,000 Bambusa balcooa plantlets on our South Africa plantation's Kowie Bamboo Farm. This methodology has been successful on a number of tree species in enhancing root development. If successful on bamboo, RPM technology could lead to accelerated early stage growth and time to maturity, improved stress tolerance and better overall performance, particularly with regards to long term biomass accumulation

## PhD Hired as Director of Research

EcoPlanet Bamboo has hired Professor Juan Carlos Garcia Camargo as our new Director of Research. Professor Camargo holds a PhD in Forest Science with a focus on the measurement and management of Guadua bamboo from George August Universität Göttingen in Germany.



# Commercial Bamboo Plantations Enhance Biodiversity

The harvesting of commercial plantations is traditionally associated with scenes of devastating land clearance. EcoPlanet Bamboo, a Company focused primarily on financial returns from the harvesting of bamboo as a sustainable fiber for the wood manufacturing industry, has proved that such returns can be attained through enhancing, rather than destroying biodiversity.

## WWF's Tropical Forest Challenge

EcoPlanet Bamboo was awarded as one of the top 5 for-profit companies most positively impacting tropical forest biodiversity in WWF Switzerland's Tropical Forest Challenge. The competition sought innovative solutions that maintain financial profitability while contributing to the conservation of the world's remaining forests, and associated forest communities.

EcoPlanet Bamboo's goal to make bamboo the timber of the 21st century was selected by a panel of 30 expert judges from all over the world as well as being voted #1 by the global popular vote competition for the most innovative for-profit enterprise solution.

This acknowledgment by one of the world's leading conservation entities solidifies EcoPlanet Bamboo's ability to combine environmental protection with positive business development.

## Gold Level Validation Under the CCBA

The standards designed by the Climate, Community and Biodiversity Alliance (CCBA) are aimed at quantifying and monitoring the social and biodiversity impacts of forest carbon projects. EcoPlanet Bamboo's Rio Siquia and Rio Kama plantations have received gold level validation for our "exceptional biodiversity benefits".

The acquisition of such certifications enables EcoPlanet Bamboo to further drive the bamboo industry in a sustainable manner while influencing international policy for the inclusion of bamboo within the ongoing forestry and land use debate.

## The Biology of Bamboo

Over the past 18 months we've shared the characteristics of this remarkable plant, starting from the bottom and working our way up from the rhizomes, roots and culms. We finish our series of bamboo biology articles with information on bamboo's braches and leaves as well as its unique flowering characteristics.

### Branches & Leaves

The majority of bamboo species will grow multiple branches from a single bud, located at the node. The branches start to grow as the culm sheaths fall off, and the timing and appearance of branches can vary substantially among the different genera. Bamboo's leaves are present at every portion of the bamboo plant, which includes the rhizomes, culm and branches. The leaves provide the photosynthetic function of the plant by converting sunlight into energy. The appearance of the leaves varies among species with some species' leaves being very large and less numerous, while other species have a large amount of very small leaves. The appearance of leaves plays a large role in the identification of bamboo.

### Flowering

Unlike the majority of plants and trees, most bamboo species seldom flower. The typical flowering interval can be decades long and are largely a mystery to botanists. Bamboo exhibits what is known as gregarious or mass flowering, as all plants in a region flower simultaneously, regardless of outside conditions that may be present.

Like most grasses, petals are absent from the bamboo flower and they lack the ability to attract insects through the use of nectaries. They are structured for maximum effectiveness with wind pollination. In many species, the bamboo will die after the flowering period as the plant focuses the entirety of its energy on flower production. The flowering events produce bamboo seed and ends with the regeneration of new bamboo plants. The rarity of flowering means that seed is a valuable commodity in this industry.

# New Institutional Financing and Partnerships for EcoPlanet Bamboo

## EcoResources Fund

In October 2012 EcoPlanet Bamboo and Premier Group, the Isle of Man based fund manager of the publicly traded Eco Resources Fund, executed on an initial \$20 million dollar longterm debt package for the purchase and development of a an additional 3,500 acres of bamboo plantations in Central America (Nicaragua). The first 1,300 acres of this expansion were purchased during Q4 of 2012, and the first 500 acres of bamboo planted as of January 15, 2013.

The funds managed by the Premier Group have a long track record of success. Furthermore the Group shares EcoPlanet Bamboo's values of making money for their investors while simultaneously having a positive impact on lives and our planet.

## World Bank (MIGA) Partnership

In December 2012 the Multilateral Investment Guarantee Agency (MIGA), the political risk insurance arm of the World Bank Group, guaranteed a \$27 million of equity investment by EcoPlanet Bamboo for our Nicaraguan bamboo plantations and operations against the risks of expropriation, war and civil disturbance. This guarantee is valid for a 15 year period.

Such backing by MIGA gives EcoPlanet Bamboo the ability and confidence to continue to increase our investment into Nicaragua while contributing to our joint mission to eradicate poverty, enhance sustainable development and mitigate climate change.

## Celebrating Bamboo

Organized by the World Bamboo Organization, World Bamboo Day is an annual event held since 2009. By elevating bamboo's benefits to an international stage, World Bamboo Day events around the globe raise awareness on the protection and sustainable utilization of bamboo. The day also aims to recognize the impact bamboo has on economic development at the grass roots level.

This year EcoPlanet Bamboo sponsored the World Bamboo Day Contest. Contestants from countries around the globe – from Africa, Latin America, Asia, Canada and the USA – organized events centered around bamboo for a chance to win in three different categories. EcoPlanet Bamboo would like to congratulate the following winners:

- *Most Creative World Bamboo Day Event*  
Bamboo Malaysia led by Shazila Ghazi
- *Largest Crowd World Bamboo Day Event*  
Arellano University, Philippines, led by Ramon Parica Jr.
- *Bamboo is Important Because...*  
Center for Training and Teaching Staff, Indonesia, led by Anto Rimbawanto and Jawaharlal Nehru Tropical Botanic Garden and Research Institute, India, led by K.C. Koshy

EcoPlanet Bamboo sponsored the Be the Change. Design a Tee. contest where artists from around the globe submitted t-shirt design entries for: (1) Bamboo: the Timber of the 21st

Century; (2) Bamboo: Mitigating Climate Change; (3) Bamboo: Driving Positive Social Change. Designs were chosen from each category and then the public voted on the Most Motivational Design, which went to South Cotabato Bamboo Industry Development Council (SCBIDC) in the Philippines for their winning design for Bamboo: Timber of the 21st Century.

Our celebrations concluded with our very own World Bamboo Day festivities in Nicaragua and South Africa. The event was marked by tributes to the vast social and environmental benefits of bamboo with musical performances by children from our local schools and women's groups, educational presentations, drawing contests and lots of food and fun.

Visit EcoPlanet Bamboo's YouTube channel to watch a film on the festivities.



# Tangible Social Impact

## Creating Access to Clean Water



BlueEnergy is an organization that brings renewable energy, clean water and sanitation services to poverty stricken communities in Nicaragua. EcoPlanet Bamboo, in partnership with BlueEnergy and Wake Forest University, is delivering a solution for the provision of clean drinking water to our employees and the communities surrounding our Nicaraguan bamboo plantations.

BlueEnergy's innovative deep well systems are fitted with bio filters, which use sand, rocks and self produced bamboo charcoal to remove 99% of all contaminants as well as odour and discolor from the water. EcoPlanet Bamboo has constructed these wells throughout our plantations for the provision of clean drinking water for all employees and to serve as fire response units.

These wells have the capacity to pump 7.8 gallons per minute and are ideal for communities. EcoPlanet Bamboo carried out an 8 day training program on their construction and maintenance, allowing replication of these clean water systems beyond our immediate vicinity.

## Driving Education

Partnering with schools surrounding our plantations EcoPlanet Bamboo Central America is attempting to make education available to all. Furthermore the development of awards for dedication and outstanding achievement helps drive ambitious students to excel, and to in turn drive development within their communities.



# Celebrating the Holidays on our Plantations

EcoPlanet Bamboo's employees celebrated the festive season with our annual Christmas parties in a small gesture of appreciation for all their hard work and commitment.

In Nicaragua over 1,000 people attended including our staff, their families and children, and government leaders. The event included the Nicaraguan national anthem, cultural dances, and competitions. Competitors' talents and devotion to bamboo were shown through songs, dancing, drawing and poetry with plenty of prizes to be won.

In South Africa the staff celebrated with a Christmas braai, a traditional South African BBQ followed by dances and speeches.

As an EcoPlanet Bamboo Christmas tradition all our workers received a special Christmas basket filled with food & other items. Each plantation nominated a committee to choose what went into the baskets, which contained items to contribute to a special Christmas feast.

