



# Good Wood











## The Good Wood Program

he Good Wood program aims at protecting, rehabilitating and restoring threatened and degraded forests in the global South. By developing a well-functioning market for wood products from these forests, local forest farmers can manage and restore their forest for future generations, based on the income from timber-based sustainable forestry.

#### The challenge

Today, 50 percent of the earth's original forest cover is gone. Natural forests continue to disappear by around 13 million hectares per year, an area equivalent to the size of England. But this is only the most visible trend per satellite. Over the past 100 years, vast areas of degraded forest land have been left behind, far from their natural and economic potential. A global mapping by the World Resources Institute shows that the total area suitable for restoration, without competing with food production or infrastructure needs, amounts to a total of 2 billion ha (of the total 13 billion of land on earth).

The potential is thus enormous. Reversing the trend from large-scale forest degradation to long-term global forestry is one of today's major challenges with a powerful bearing on several of the Agenda 2030 goals.

#### Why are the forests being destroyed?

The reason for the destruction and degradation of forests is a complex mix of large-scale land conversion for high-yielding commodity plantations, logging for timber, and poor farmers who burn for planting, hunting or coal. An underlying key factor is that states often retain land ownership and sell concessions to short-term players. Local forest farmers, often the customary rightful owners, have no formal land security, which impedes the investment that sustainable forestry entails. In the absence of long-term incentives to manage a standing forest, they easily end up in a vicious circle of poverty and continued forest destruction.

In recent years this factor has begun to see a change. Between 2002 and 2012, locally controlled forest land has increased by 50 percent, albeit from a low level. This has greatly increased the number of small farmers who could invest in sustainable forestry for their own and future generations' benefit. But this development is also risky. Without functioning markets that provide income from a standing forest, it can quickly be converted to other uses that provide needed incomes or sold to external short-sighted players. The Good Wood program is therefore particularly relevant right now.

#### Wood – a potentially transformative product

In most tropical natural forests timber for wood production is the product with the greatest economic potential, and thus can provide an incentive for small farmers to manage and restore a standing forest. The timbers from natural forests in the South are usually a variety of hardwoods, suitable for products like floors, doors, furniture, outdoor wood etc. There



are often other potential incomes from a functioning forest, such as energy, nuts, honey, hunting, eco-tourism, etc. Also, today there are various climate compensation programs that can provide payments for protecting a standing forest. These income sources are often small but can provide risk reducing diversification alongside timber as the base industry.

#### Net-positive impacts

Introducing timber-based sustainable forestry involves a number of measures to optimize tree growth and quality while protecting natural resources and ecosystem services. Research shows that timber-based sustainable forestry can provide major ecological and social benefits over a formally protected unmanaged forest:

- Carbon sequestration increases between 3 and 10 times (To this add storage in long-lived wood products, and potential substitution of fossil fuels by local power generation from biomass)
- Biodiversity and ecosystem services are strengthened, such as access to clean water, storm protection, erosion protection
- Jobs in forestry, sawmills and support services provide local development and livelihood

#### A unique competitive advantage

Sustainability commitments mostly mean reducing something bad – minimizing a negative footprint. But products from degraded forests that have introduced sustainable forestry can rightly be said to be net positive for the environment. The customer could, by her purchasing choice, be part of protecting and restoring forests.

As the global middle class grows and the world's cities are being built, demand for wood is steadily increasing. Modern companies are increasingly targeting the growing segment of customers who value origin and sustainability. Wood products from locally controlled and sustainably managed natural forests are potentially attractive to these customers. If price and quality can be competitive, leading companies could spearhead this market, thus creating a transformative lever to turn the negative trend of forest degradation into its opposite – rehabilitation and restoration.

#### Obstacles to a transformative wood market

In order for this market to be realized, small rural producers and modern industrial customers in the world's cities must be able to meet and develop a mutually beneficial business. Today, a number of key obstacles must be bridged for this to happen:

### The existing market excludes small farmers with natural forest

Today's international tropical wood market still only deals with well-known wood species in large dimensions of primarily defect/knot-free wood. This excludes small farmers who normally only get rights to previously harvested, heavily degraded forests where mostly poorly known species and small dimensions remain. However, with modern technology, these trees would work very well for the manufacturer's needs, and thus could constitute the economic basis for recreating a valuable forest.

For this two-way production adaptation to occur, the wood producer and manufacturing customer need to communicate. Today, no such communication takes place because of the structure of the traditional market, with its several levels of intermediary traders.

#### Suitable sawmills don't exist

Today there is no readily available sawmill concept that suits both the degraded natural forests and the demanding industrial customers. There are either old export sawmills that match the traditional "unlimited" and cheap access to large trees, or small simple sawmills without drying facilities for the local market. These do not meet the quality demands of modern customers (precision cutting, wood drying, etc.). Restricted to only producing cheap lumber for local markets makes it difficult to compete with illegal timber and prevents local industrial development.

In addition, sawmills are often driven by diesel, which is expensive and bad for the environment. With modern technology, the sawmill waste could drive the sawmill and also provide energy surplus for local society.

#### Lack of forest management models for tropical forests

Because tropical forests have so far been used as mines for extraction of large logs of commodity species, there is relatively little research on sustainable forestry models for the different forest types. Little of the research and experiments that have been carried out has been used to develop practical forest management plans and is not known by either the forest farmers or the organizations that help them. Specifically, what is lacking is forestry models for tropical forests that combine measures for creating high growth in timber value with the rehabilitation of ecosystem services and maintenance of high biodiversity conservation values. Such models are necessary to achieve the transformative potential of establishing sustainable forestry.

#### Tropical wood is associated with forest destruction

The concern about destruction of rainforest that began in the 80's and continues today has created a taboo about tropical wood that is hard to break. Responsible companies do not want to be associated for fear of reputational damage. Therefore, verification of origin and sustainability with high credibility is required. FSC is the certification system available in the Global South which is considered most credible by concerned stakeholders. Despite the certification, it is still difficult for the final customer to know the origin and the environmental impacts of her purchase.

In order to break the prevailing stigma and create a breakthrough for this market, companies want to go beyond certification requirements. They want to communicate the origin of the wood in their products down to individual forest owners and the positive impacts from their forest management. However, today there is no system for verifying such statements.



#### The Good Wood Program — A program to create the market

To overcome the obstacles and create a transformative market, the Good Wood program has been created.

#### Purpose and goals

The goal of the program is to create a global market for wood products from locally controlled and sustainably managed natural forests in the global South, under threat of degradation.

The overall aim is for this market to constitute a longterm driver for protection and restoration of threatened and degraded forests in the global South.

In addition, the market will support three further interlinked development factors:

- Local rightful landowners' control over, and value growth in, their forests
- Modern and scalable entrepreneurship that builds societies
- Competitiveness and growth of ethical designers and manufacturers of wood products

To avoid misunderstanding: There are criteria for which forest areas may be included in the program. The focus is on so-called Secondary forests affected by man for hundreds of years and which today are threatened with degradation or deforestation. Adequately protected forests with high conservation values, such as untouched rain forests are excluded.

#### A new competitive value chain

The foundation of the program is a new innovative value chain developed for hardwood from tropical forests with potential to provide an attractive business case for all actors in the chain. The program is partly about launching a new market by facilitating the creation of a number of such value chains. And partly about developing the unique aspects of the value chain to make the market competitive with petroleum-based products and the illegal / unethical trade.

The program also includes building a base for market upscaling after the end of the program, through communication, partnerships with different organizations, a web-based marketplace and training of facilitators.

#### Program components

- The activities are divided into five different components:
- **1.** 5-10 start-up projects for value chains according to the new model
- **2.** Develop "optimal" forestry models for a number of types of tropical natural forests, as well as impact monitoring systems
- 3. Develop a production system for wood and energy
- **4.** Develop a system for verification and communication of origin and positive impacts
- **5.** Create a platform for market upscaling after the end of the program

Here you will find an overview of these five components in terms of activity, results and participants.

## 1. The market is started through value chain start-up projects

*Activity:* An international team of experts provides coordinated support to all actors, from small-scale owners to end-users, in creating value chains. These value chains follow a new model (system innovation) for tropical hardwood from natural forest, which is based on four characteristics:

- Certified sustainable forest management by groups of small forest owners who control their forests
- High quality processing (precision cutting, wood drying), as well as energy from waste from small step-wise scalable sawmills
- Optimized resource use through direct communication and joint coordinated production adaptation between the actors
- Media-rich communication of the precise wood origin of the end product, as well as verified positive effects for the natural forest

Smallholder group 5–10 participants: groups of smallholders, communities	Sawmill 5-10 participants: Local entre- preneurs, cooperatives, forest companies supporting local development	Manufacturers and retailers 10–20 participants: Manufac- turers and designers of floors, kitchens, doors, exterior wood, furniture Retail companies for DIY and home decoration	Corporate end users 15–30 participants: Construc- tion and real estate companies, hotels/ restaurants, commer- cial spaces, large companies, architects
<ul> <li>SUPPORT IN THE START-UP PROJECTS IS P</li> <li>Creation of supplier group</li> <li>Introduction of timber-based sustainable forestry</li> <li>Business development</li> </ul>	<ul> <li>Customer matching</li> <li>Design of production systems for wood and energy</li> <li>Customer driven product- and business development</li> </ul>	<ul> <li>Learning about the world's forests</li> <li>Matching with supplier and customer</li> <li>Resource optimizing product and process development</li> </ul>	<ul> <li>Learning about the world's forests</li> <li>Matching with supplier</li> <li>Communication of verified origin and social-ecological effects</li> </ul>
<ul> <li>RESULTS:</li> <li>Increasing economic value of the forest</li> <li>Protection and restoration of the forest</li> <li>Local industrial development, alleviating poverty</li> </ul>	<ul> <li>Sustainable, profitable and investable business concept</li> <li>Equal and safe working environment</li> <li>Step-by-step scalable production system</li> </ul>	<ul> <li>Profitable green product lines with inspiring stories of origin</li> <li>Future-proof and developable position as a leader in sustainability</li> <li>Increased competitiveness toward unethical low-cost actors</li> <li>Engaged customers and employees</li> </ul>	<ul> <li>Installed cost-effective green products with inspiring stories of origin</li> <li>Future-proof and developable position as a leader in sustainability</li> <li>Engaged customers and employees</li> </ul>



#### 2. Forest management models for tropical forests

Activity: Development of "optimal" forestry models for a number of types of tropical natural forest, which provides balanced growth of financial value and ecological values.

First, identify and compile leading research and experience. Based on this, practically useful plans are developed and tested in the start-up projects. These models are communicated to forestry agencies, organizations and development financiers. For each model, the ecological, economic and social effects are estimated and monitored over time.

*Results:* Forestry models for common forest types are established in the participating countries. Knowledge, practical plans and templates are available from National Forest Authorities and Support Organizations. Thanks to the many times higher value growth and faster restoration of the forests, these models spread throughout the entire global South.

*Participants:* Researchers from leading institutions focusing on forestry in the project's selected tropical forests, as well as researchers, experts and authorities from the countries of the start-up projects.



## 3. Production system for wood and energy

Activity: Development of a production system adapted to degraded tropical natural forests and modern customers' requirements,

including the use of sawmill and forest waste for energy production. A first focus is to identify, combine and adapt appropriate subsystems for sawing, sorting and bio-fueled drying. A second focus is power generation to drive the sawmill and deliver electricity to a local electricity grid. The system is tested in the various start-up projects, as well as in a central development and training facility in Sweden. The system is published openly (open source), allowing different manufacturers to develop suitable components.

*Results:* An adaptive production system that enables a positive business case for entrepreneurs with access to degraded natural forests. The system has the following characteristics:

- Optimized sawing, drying and sorting of different species and varying dimensions
- Energy production from residual waste, for heat to drying, sawmill operation, and surplus to a local electricity grid
- Low investment and incremental scalability
- Robust technology that can be serviced with locally available parts and tools
- Equal work conditions
- Safe working environment

Inspired by the possibility of developing a new forest sector based on natural forest, the participating countries create national centers for outreach and support to entrepreneurs, and for continuing the development of processing technology and systems.

*Participants:* Manufacturers of different components and subsystems, researchers and experts in systems and subsystems, participating sawmill contractors, national authorities / institutes.



### 4. System for verification of origin and socio-environmental impacts

Activity: First, a system is developed for verifying origin from individual forest owner groups, as well as estimated environ-

mental and social effects of the forestry system. This system is tested in the value chains in the program. Secondly, communication (message, design and delivery) is developed based on this information, which is tested on different product and customer segments.

*Results:* A strong competitive advantage is available to designers, manufacturers and retailers that buy from certified wood producers sourcing timber from locally controlled tropical natural forests. This competitive advantage is hard to copy and is effective toward the growing segment in the world's cities who value origin and sustainability. As awareness spreads of this certification, competing unethical low-cost products are increasingly excluded from the market.

*Participants:* Experts and researchers in social and environmental impact assessment, certification, communication design, consumer behavior and marketing, participating actors in the value chains.

#### 5. A platform for scaling

In order to achieve a scaling of the market during and after the end of the program, four activities are included:

#### Partnership with organizations and authorities

Partnerships are formed with selected actors who share the agenda of sustainable economic development of the natural forests in the global South. Examples are National Forest Authorities, Local and International Environment and Development Organizations, Development funding agencies and foundations.

#### Training of facilitators of new value chains

The partner organizations that are interested in taking this role are trained to facilitate the emergence of value chains according to the new model - both upstream and downstream.

#### A web-based marketplace

A web-based marketplace is created, which will be based on showing the actors, their products, stories of origin and positive effects. Thus an interesting forum is created for direct contacts and dialogues about products, business and new ideas.

#### **Communication:**

During the course of the program there will be continuous communication activities to create awareness and interest among the target groups.

- *Target groups:* customers, end customers, stakeholders, governments and opinion leaders
- Message:
  - Wood from locally controlled and sustainably managed natural forest is the most 'green' engineering material
  - We can all be part of protecting and restoring the world's natural forests through the use of beautiful wood products
  - The need for a strong global market for certified wood from natural forests to provide incentives for restoration and protection of these
- *Unique resource for communication:* Final products from the participating value chains and the inspirational stories about their origins
- Channels:
  - Events Own and external, eg selected fairs and conferences in relevant sectors (Real Estate, Design, Architecture, Sustainability)
  - Program website and newsletter
  - Partner organizations' media channels



The Eco-Innovation Foundation (EIF) is a newly formed, non-profit, operational foundation, with the mission to actively drive the creation and promotion of inclusive markets that inherently support the restoration of landand seascapes and the development of rural societies.

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The founders of the Eco Innovation Foundation are a team of mixed competencies; ecology, forestry, technology, sustainable urban development, business development, marketing, and entrepreneurship. What makes us different is our experience in and passion for sustainable industrial development and how this must be based on bridging the divides between big corporations and small entrepreneurs as well as between urban consumption and rural production. Previous clients of the founders include corporations, cities, government agencies, leading NGO's, SME's and entrepreneur networks in more than 40 countries.

For more please visit: www.eco-innovation.org

