

# Unlocking the benefits of forest carbon



# New market based solutions are emerging to help mitigate climate change

Corporate entities and brand owners are in a position to make the change towards a more sustainable world. Triggered by the Paris climate agreement, voluntary initiatives promoting action on climate change and sustainability are being introduced by companies. New solutions can be found through forest carbon by combining climate benefits with sustainable forest management and material solutions. All this can be built on business fundamentals beyond policies and regulations. There is no need to wait.

A lively political and scientific debate is taking place around forest carbon. However, less attention is being paid to the private sector's role in climate change mitigation through forest carbon. And yes – scientists still have a variety of views on the climate impact of forest carbon, but this should not prevent companies from getting initiatives underway.

If we take the European Union as an example region, each EU citizen would need to plant one thousand trees to compensate for his or her annual CO<sub>2</sub> emissions. For 500 million EU citizens, this means 500 billion trees. The scale is large, but the example demonstrates how emerging forest carbon markets can help us to use sustainable forestry as an important means to mitigate climate change.

## LAND USE AND FOREST CARBON

The new era of climate consciousness sets a basis for new, more ambitious, climate actions. Forests can play an important role in climate change mitigation. Enhancing carbon balance in new or existing forests is becoming a topical issue alongside a multitude of measures that are needed for climate change mitigation. This creates a question: what are the viable options for combining forest carbon management with commercial and sustainable wood production?

Integrating carbon management with commercial forestry can form an efficient way to mitigate climate change. This may involve changes in the way forests are managed, such as the method and intensity of harvesting. The optimal scheme depends on a variety of aspects, such as forest type, but also on



the desired time frame and carbon impacts – including end use options of wood. In many cases, positive climate impacts can be achieved with minimal effort and without any significant investment requirement. However, new business models need to be developed to exploit carbon benefits by forest growers.

Planting trees is another pragmatic way to mitigate climate change. Globally, it is estimated that there are some 300 million hectares of land that could be used for biomass production without threatening food security. In addition, afforestation and reforestation are widely recognised as desirable ways to enhance global forest carbon balance. In remote abandoned lands, where commercial wood production is not a viable option, forest carbon management through tree planting is a way to improve utilisation of these areas.

## What do we mean by forest carbon?

The context of forest carbon comprises a variety of aspects from forests to end use of wood, extending to the concepts of carbon sink, storage and avoided emissions. A change in one part of the forest carbon chain impacts the others, thus, understanding the complex interdependencies around forest carbon is essential.

### WOOD USE AND FOREST CARBON

After harvesting, trees offer climate benefits through material substitution. Greenhouse gas emissions are avoided when wood is used instead of materials with more carbon intensive production processes. For example, using more wood in construction rather than concrete and steel would lead to reduced greenhouse gas emissions.

In addition to avoided emissions through material substitution, wood products create climate benefits through storage of forest carbon. For example, long term carbon storage is created when wood is used in construction, emphasizing the climate benefits of growing forests.

When using wood for energy, forest carbon is immediately released into the atmosphere. On the other hand, burning wood for energy may prevent the use of non-renewable fossil fuels. As long as there are no other, more sustainable, alternatives available, then burning wood can be regarded as reasonable. This is the case especially when using wood assortments that have no viable material use options or that decay within a relatively short time frame.

### PRIVATE SECTOR AND FOREST CARBON

So far, climate and sustainability aspects have not been among the primary criteria affecting material decisions, for example, in packaging and construction. A multitude of aspects are involved, including consumer preferences, brand management, cost efficiency,

performance, safety and regulations. Climate benefits and sustainability are, however, an integral part of all of these aspects impacting the market outlook of forest based solutions.

Consumers are increasingly conscious about the climate and sustainability impacts of products and services. The role of private companies will be crucial in terms of concrete actions promoting climate benefits and sustainability. Many corporations and brand owners are implementing voluntary climate change and sustainability initiatives related to sustainable energy and materials. These initiatives are introduced regardless of the clients' readiness to choose or pay higher value for sustainable products or services.

Forest sector companies operating in a forest and wood value chain stand to benefit. Various brand owners, especially those in consumer business, are looking for opportunities to implement measures beneficial for the climate and sustainable development. Offering solutions that support these companies to gain competitive advantage through climate benefits or sustainability is a key opportunity for forest sector companies. In addition to sustainable materials and products, new business opportunities may be found in services improving climate and sustainability performance of the companies.



New business opportunities can be found in providing services that support corporations and brand owners to implement actions promoting sustainable development. Forest carbon related products and services are an example of such an opportunity, requiring new innovative business concepts to be developed. Voluntariness is the key, extending the business fundamentals beyond the climate policy framework.



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