

# Borneo, Indonesia

## Protection of Mangroves and Coastal Swamp Forests

### THE PROJECT IN A NUTSHELL

The local leaders of the project have recognized that in addition to protecting the mangrove forests, it is important to involve the local inhabitants in the project. This is carried out through training in project and reserve management and environmental protection measures. Moreover, the protective measures create jobs, for instance for gamekeepers who report illegal activities, and within fire protection management. The project also improves access to health facilities and provides water filters as well as energy-efficient cooking stoves. Furthermore, the project is part of the “One Laptop per Child” initiative which aims to give worldwide access to education for children. Through these different measures, the living standard of the local population improves sustainably.

### FOREST CONSERVATION

Certification	Verified Carbon Standard (VCS), Reducing Emissions from Deforestation and Degradation (REDD+), Climate, Community & Biodiversity Standard (CCBS), Avoided Planned Deforestation (APD), Voluntary Emission Reduction (VER), Clean Development Mechanism (CDM-/UNFCCC)-Requirements are met
Project Validation	SCS Global Services, Environmental Services (ES)
Project Location	Borneo, Indonesia
CO <sub>2</sub> Savings	ca. 3,527,171 t CO <sub>2</sub> e p. a.



### PROJECT DESCRIPTION

An increasing number of existing forests are threatened by the emergence of palm oil plantations. To make the land suitable for agriculture, the forests are being destroyed through fire clearance. This eradicates more than 2% of the existing forest every year, as well as driving CO<sub>2</sub> emissions to exorbitant heights. The climate protection project in Borneo is saving large amounts of CO<sub>2</sub> annually through the protection of a coastal swamp forest which is home to strongly endangered orangutans, and which was originally intended for fire clearance. The mangrove forests play an important role in the protection of the surrounding corals because they serve as a nursery for endangered species and adsorb sediments that can suffocate corals. Corals are not only beautiful but also act as a coastal defense for many islands and mainland regions. Without the corals, many beaches would simply be washed away.

### VERIFIED CARBON AND REDD+

The Verified Carbon Standard (VCS) was established by numerous environmental organizations as well as some business organizations. Its declared aim is to promote and monitor climate protection and to verify the standards set for CO<sub>2</sub> reduction projects in accordance with the Kyoto Protocol. In addition to improving the climate and the environment, the acquisition of a CO<sub>2</sub> reduction right supports the economy in the project country and thus improves the social situation of the population at the project site. REDD+ stands for „Reducing Emissions from Deforestation and Forest Degradation; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries“. Thus, with the help of this climate protection instrument, forests are to be protected and emissions caused by deforestation and forest degradation are to be reduced, among other things through the active involvement of the local population. In addition, measurable and verifiable CO<sub>2</sub> savings are remunerated.

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#### PROJECT COUNTRY

Indonesia abounds with superlatives: With more than 17,000 volcanic islands it builds the largest island nation in the world. More than 10% of the world's rainforest is located here and adding up all species living here makes Indonesia the country with the world's richest biodiversity. The forests inhabit many unique plants such as orchids and rafflesias which is the largest plant in the world and only blooms for 4 to 7 days. Indonesia is known to be "a hotspot of biodiversity" both on land and underwater and every third species or plant only exists here. Large parts of the country are located in the Coral Triangle where more than 75% of all known coral species can be found. It is also home to more than 3,000 different species of fish but also bursts with various species of turtles, dolphins, whales, sharks, and rays.



INDONESIA



The purpose of forest conservation is to bind CO<sub>2</sub> in the wood through photosynthesis.

#### FORESTS ABSORB CO<sub>2</sub>

For hundreds of years forests have been suppliers of wood, however, they have meanwhile also become an important aspect of the climate protection debate. Soils and plants absorb between three and four billion tons of carbon from the atmosphere every year. Additionally, deforestation is responsible for a large amount of CO<sub>2</sub> emissions. Since even more CO<sub>2</sub> is caused by other human activities on top, the total amount of CO<sub>2</sub> emissions is exceeding the ability of forests to absorb CO<sub>2</sub>. Only a quarter of the total emissions is being compensated by existing vegetation. It is therefore of great importance to protect the existing forests.

#### CO<sub>2</sub> COMPENSATION

CO<sub>2</sub> compensation of greenhouse gases such as methane and carbon dioxide seeks to avoid and offset climate-damaging emissions through developing and supporting international climate protection projects. The financing of these worldwide projects is provided by the Western industrial countries and signatories of the Kyoto Protocol. As a guiding principle of CO<sub>2</sub> compensation, it is irrelevant in which part of the world CO<sub>2</sub> and other greenhouse gas emissions are being avoided. Every climate action matters because climate is global and does not stop at national borders. Therefore, climate protection can be implemented where it is most feasible.

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#### SUSTAINABLE DEVELOPMENT GOALS

On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the United Nations officially came into force. The goals for sustainable development are political objectives where social, economic and ecological aspects are on the agenda.

One important finding is that the eradication of poverty must be accompanied by policies supporting economic growth as well as addressing a range of social needs. This includes education, health, social protection, and employment opportunities, while tackling climate change and protecting the environment at the same time.

The project on Borneo is a superlative project, meeting each of the 17 goals.



**NO POVERTY** The project is financed from the proceeds of the emission credits and invests this money in other local initiatives with the aim of ending poverty and improving the living conditions for the local population.



**ZERO HUNGER** Through its various initiatives, the project has a positive influence on almost all people in the region. It offers income opportunities and teaches methods of sustainable agriculture, so that everyone is able to make a living and buy food.



**GOOD HEALTH AND WELL-BEING** Among other things, the project provides water filters and eyeglasses and has built a floating clinic so that people in the remotest corners can receive medical care.



**QUALITY EDUCATION** Scholarships funds for the procurement of materials and secondary education outside the community were established. Furthermore, a library has been built which provides access to learning resources and supports the attainment of literacy skills.



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#### 5 GENDER EQUALITY



**GENDER EQUALITY** Initiatives have been developed that are led and supervised by women in order to establish a community-based forest management. These include egg and chicken farms, traditional handicrafts, and the production of shrimp paste and salted fish.

#### 6 CLEAN WATER AND SANITATION



**CLEAN WATER AND SANITATION** 2,500 water filters were provided and three large filtration plants have been erected with the aim of supplying every household with clean drinking water.

#### 7 AFFORDABLE AND CLEAN ENERGY



**AFFORDABLE AND CLEAN ENERGY** Each household has been provided with a small solar plant to ensure that all inhabitants have access to light at night. Larger solar plants have also been installed to provide streetlights with energy or to be shared between two households. The long-term goal is to equip every village with solar systems.

#### 8 DECENT WORK AND ECONOMIC GROWTH



**DECENT WORK AND ECONOMIC GROWTH** The project has created 60 jobs. In addition, the project encourages to set up small businesses and initiatives. By providing technical equipment such as laptops, GPS and Internet access, the project creates optimal conditions for safe and effective work.



#### 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



**INDUSTRY, INNOVATION AND INFRASTRUCTURE** The project develops the infrastructure and ensures the safety of the population, for example by constructing sidewalks. It also invests in new technologies and provides modern means of communication to which all members of the community have access to.

#### 10 REDUCED INEQUALITIES



**REDUCED INEQUALITIES** Groups of minorities and women are supported in setting up their own initiatives in order to generate income. Inequalities are further mitigated through the provision of water filters and solar panels for each household, access to education for children, and the possibility to participate in trainings and courses.

#### 11 SUSTAINABLE CITIES AND COMMUNITIES



**SUSTAINABLE CITIES AND COMMUNITIES** There is no big city near the project site, nevertheless the project aims to provide all the amenities that big cities bring to the people and is working on this goal. In addition, the people are educated, for example, on the importance of protecting the forests and natural resources. Moreover, the project presents income opportunities that are in harmony with nature.

#### 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



**RESPONSIBLE CONSUMPTION AND PRODUCTION** Through the development and implementation of an optimized land use policy, the population is encouraged to use the available resources in a sustainable way. For example, they are trained in sustainable fishing methods.

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#### 13 CLIMATE ACTION



**CLIMATE ACTION** The project protects 65,000 hectares of forest that were originally intended to be converted into a palm oil plantation. On top of that, new mangroves and other trees have been planted that capture additional amounts of CO<sub>2</sub> and thus make a major contribution to climate protection.

#### 14 LIFE BELOW WATER



**LIFE BELOW WATER** Sustainable fishing methods have been introduced to protect existing stocks. Furthermore, several clean-up programs have been established to collect garbage, preventing it from entering the sea. In addition, the newly planted mangroves provide a nursery for many fish.

#### 15 LIFE ON LAND



**LIFE ON LAND** The protection of existing forests and reforestation protect the natural habitat of numerous animals and plants, including 120 endangered species such as the orangutan. The forest is further protected by introducing a voluntary fire brigade and educating about the causes of fires. In addition, camera traps provide insights into the local flora and fauna.

#### 16 PEACE, JUSTICE AND STRONG INSTITUTIONS



**PEACE, JUSTICE AND STRONG INSTITUTIONS** The project supports indigenous population groups and women in setting up their own initiatives and projects and ensures that they receive sufficient institutional support from project partners. In addition, the project works on improved and sustained relationships with government agencies at the local as well as national level.

#### 17 PARTNERSHIPS FOR THE GOALS



**PARTNERSHIPS FOR THE GOALS** The project works closely with stakeholders from NGOs, organizations, governments and communities, because only through the involvement of all groups can the sustainability of the initiatives and protective measures be guaranteed.

