BRAZIL

PONTAL DO PARANAPANEMA

NOVEMBER 2018

WeForest
Making Earth Cooler

In Brazil, as in many other places in the world, deforestation has lead to the disappearing of wild animals and plants: biodiversity loss. Since 2014, WeForest and its partners are demonstrating that biodiversity friendly and economically viable land use alternatives can go hand in hand.

This project works in partnership with the Forestry Department of the ESALQ University of São Paulo and other local universities and funds local graduate and undergraduate students to contribute to the monitoring of project results and development of best practices.

SCIENCE-BASED MEASUREMENTS AND VERIFICATION

Forestry survey: October 2018

Socio-economic survey: December 2017

Carbon measurements: October 2018

LANDSCAPE TRANSFORMATION

Trees funded: 1,476,500

Hectares directly restored: 738 ha

Total area positively impacted: 45 000 ha

Methodologies used:

Areas with no or very limited natural regeneration: planting of 2000 seedlings per hectare, using at least 100 native species.

Areas with intermediate potential for natural regeneration: encourage the regenerating of native trees and shrubs by manual or chemical control of invasive grasses and active restoration of those patches that are not covered.

Areas with high potential for natural regeneration: isolate the site from human-mediated disturbances and encourage the regenerating of native trees and shrubs.

BIODIVERSITY CONSERVATION

A unique seed bank

In October 2018, 2408 trees with a height over 1.5 meters were sampled. Together, they cover over 130 different species. Some are purposely planted and some are naturally regenerating. The most common species are river koko (Inga vera) dragon's blood (Croton urucurana), and bay cedar (Guazuma ulmifolia).

Endangered species

The black lion tamarin (*Leontopithecus chrysopygus*) was considered extinct in the wild. Though he still remains endangered due to forest fragmentation, he can be seen in the project site again.

A giant anteater (*Myrmecophaga tridactyla*) was spotted roaming our restoration sites. This vulnerable species has lost approximately one third of its populations in the last decade.

CARBON SINK

With the total amount of trees planted we are expecting to reach 233,946 tons of CO2 in 30 years. This equals to 317 ton per hectare.

The biomass and carbon estimates of all planting activities are based on field measurement of approximately 2,400 trees measured with the Forestry Department in ESALQ University of São Paulo, Prof. Pedro H. S. Brancalion and his undergraduate student, Gabriela Rosalini. This method differs from the previous LiDAR-based estimates by relying on more intensive fieldwork that allowed us to sample all WeForest planting sites better.

COMMUNITY ENGAGEMENT

478 families benefited since 2015

71 families received training in seedlings production

400 farmers were trained in agroforestry and organic farming

150 families gained additional income from sustainable livelihood alternatives - selling tree saplings from community nurseries, participating in agroforestry schemes and working on forest restoration sites

8 community-based agroforestry nurseries operate for the project and supply to the local native seedling market

SHORT STORIES FROM THE FIELD

WeForest Science Advisor receives Bungee Award

Prof. Pedro Henrique Santin Brancalion is one of WeForest´ scientific advisors in Brazil and although only 35 years old, he has published more than 180 scientific articles and has been cited more than 2,000 times in the scientific literature.

It is for his contribution in consolidating environmental conservation, forest restoration and agriculture production that Pedro has been awarded the Bungee Award. Since 1955, the Bunge Foundation awards people that are key for innovation and knowledge dissemination in the fields of Sciences, Arts and Literature.

Especially important is Pedro's philosophy for conserving forests, which is based on the relationship between farmers and the environment. *´In Brazil, it is impossible to protect nature without engaging farmers, at the same time, farming requires a healthy environment´.*

Teaching for Trees

Teaching a weekend course on Tropical Forest Restoration in Rio de Janeiro, Brazil, in exchange for trees being planted for WeForest's Atlantic Forest Project, Ricardo Cesar, WeForest's Brazil Country Representative, does not shy away from dedicating his free time to engage with over 20 graduate and undergraduate students, spark lively discussions and plant more trees!

The students had backgrounds in, amongst others, Environmental Engineering, Agronomy, Biology and even Economics and theoretical discussions on the history, practice and legislation of ecological restoration in Brazil then turned into real practical exercises. Ricardo: *´In one of the exercises I simulated that I was a landowner. The students then had to propose a plan to improve the productivity and ecological benefits of my land. It was very constructive since we could see the conflict of views between students and landowners, and negotiate trade-offs. Besides being fun, it was the closest that many of them had ever been to talking with a ´real´ small farmer´.´*

Finally, the course ended by practicing using open-licence geoprocessing software to map areas required for restoration by the Brazilian law.

With this, Ricardo has shown us that educating the local community literally helps plant trees.

UPCOMING 6 MONTHS

- Plant 576,000 trees (238 hectares) in the Pontal do Paranapanema region.
- Develop guidelines to improve restoration practices with our partners.
- Monitor the social impact of the project on local families in partnership with researchers of the University of São Paulo.
- Quantify the benefits of connecting forest patches landscape
- Continue measuring carbon as well as ecological and social impacts
- Bring FLR policies to the agenda of state agencies in Brazil

MEET GABRIELA ROSALINI, UNDERGRADUATE STUDENT WITH WEFOREST

Gabriela Rosalini is an undergraduate student at the University of São Paulo and member of the student group for ecological restoration. Since August 2018 she is working on her undergraduate final thesis by monitoring WeForest tree plantings under the tutoring of Prof. Pedro Brancalion – one of our science advisors in Brazil.

Through WeForest funding, Gabriela gained experience in team management, literature review and planning, sampling and evaluating tree plantings. She says: *Learning about different aspects of forest restoration, seeing the impact on the ground and seeing the people benefiting from the project made my studies very meaningful´.*

WeForest is an international non-profit that specializes in mobilizing companies to restore the World's forests and embark their stakeholders into a long-term journey towards environmental sustainability.

In order to achieve the objectives of the Paris Climate Agreement, we need to start decreasing our global emissions by 2020 and achieve carbon neutrality by the second half of this century. While reducing carbon emissions is critical, research suggests that even if carbon dioxide emissions came to a sudden halt, the carbon dioxide already in the Earth's atmosphere could continue to warm our planet for hundreds of years. The challenge is to reduce future carbon emissions and actively remove the excess carbon from our atmosphere.

Forests are known as the best technology for that: they are an amazing carbon sink.

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THANK YOU

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