PROGRESS REPORT 2018

WORLDVIEW INTERNATIONAL FOUNDATION

In support of the Paris Climate Agreement and UN Sustainable Development Goals.

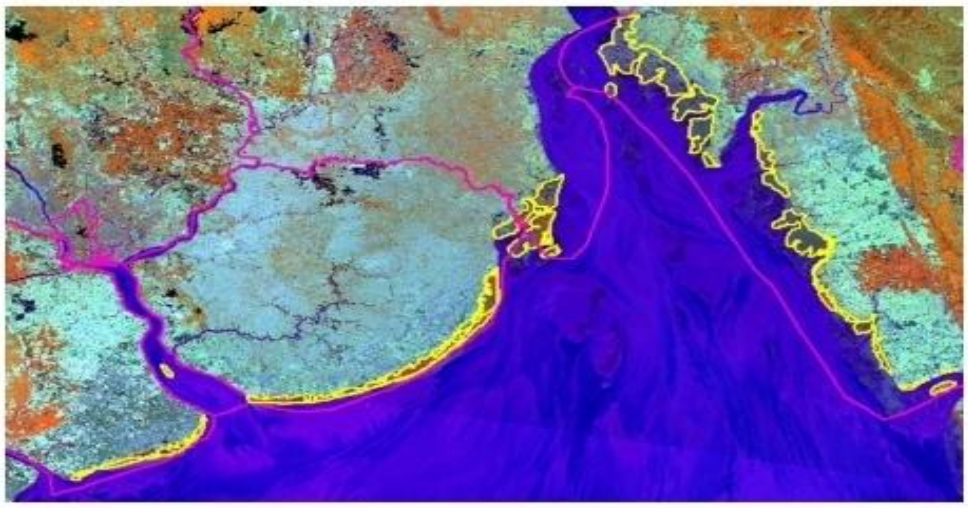
MANGROVE RESTORATION

2018 was a year of rapid growth. After three years of research and a further three years of test planting with various methods, the Heyerdahl Climate Park project achieved a record-breaking plant survival rate of 93%. By reducing costs without compromising quality, efficiency was substantially increased.

WIF is now ready to scale. Our goal is to plant 1 billion trees with the highest survival rate and cost efficiency. In parallel, available land for planting has been increased to 100,000 Ha in Myanmar in cooperation with the Forest Department, coastal communities and regional governments. Land negotiations for future expansion are in progress in several countries.

The biggest land area that became available for planting in 2018 is on newly formed 47,000 Ha of mudflats. These are located in Yangon, Bago and Mon State regions, home to over 10 million people. Discussions are in progress with potential partners for funding. Mangrove trees will function as protective shields from cyclones and other extreme weather, as well as reducing dangers of shoreline erosion due to sea level rise. Based on experience from existing projects, substantial increase in seafood production is among several other advantages benefitting the communities.

THE AMAZING TALE OF
RESURRECTED FORESTS



Satellite pictures have reveiled an amazing natural phenomenon outside coastal are as in the Gulf of Mattama in Myanmar; 47,000 Ha of new land emerging from the sea. 43 islands have been formed by soil washed out from deforestated areas. Exposed to heavy rain, the land has been bleeding its fertile soil into rivers which is pushed back by the tide and has been slowly building up new land.

This miracle of nature is now ready for new life. The islands have already developer a green cap with grass, signalling readiness for embracing trees in their fertile soil. It is time for replanting. In this environment touched by salty tide twice a day, the only trees that grow are mangroves. Mangroves will function as a green wall that protects the shoreline and provides a solution to climate change in support of the Paris Climate Agreement and UN Sustainable Development Goals:
Development of the mud flats will create sustainable development for the communities with additional income from natural carbon capture and storage, estimated to over 80 million tons CO2 climate gases.

In cooperation with coastal communities, WIF has been awarded the right to 24,000 Ha of mangrove areas in Yangon. This land was granted by the Chief Minister of Yangon region. In response, WIF and WeForest collaborated to establish a nursery capable of producing 420,000 seedlings per year. In 2018, 2.2 million trees were planted in Thor Heyerdahl Climate Park on 2,200 Ha. This number is expected to rise to 9.5 million trees in 2019 to complete the VCS project.

We are very thankful to our partners in the Forest Department, Pathein University, Forest University, Starboard, Arcala Radio, Sundt Air, Bio8, Ice World, Lykke Tree Coins (56 contributors), Blue Life, Generation Blue, Eco Eye, WeForest, SvenskaSkolan Portugal, Eco Friend, Global Mangrove Trust, Soho Hospitality, Wonderfruit, Alan Laubsch family, Global Knowledge, MP Global Connect, BioCarbon Engineering, Cool Effect, Salesforce, Kon Tiki Museum, Innoventi, Svein Tveitdal, Kjell Veivaag, Christian Hagemann, Sven Christian Fender, Stefan Degerlund, Sidsel Pettersen, Desiree Doeskops, Jack Jacometti, Juha Hulko,

Kari Mokko, Matthias Neumann, Anna Rosinger, Nick Laidlaw, Ryan Merill, Simon Schillebeck, Simran Mulachandani, Dee Laurence, Sandeep Roy Chowdhury and many others providing valuable contributions. Happi Earth Products, Tiptop Things Ltd and Sustainable Surf are among several new partners registered for support in 2019.

Forest observation by drone to identify planted trees.

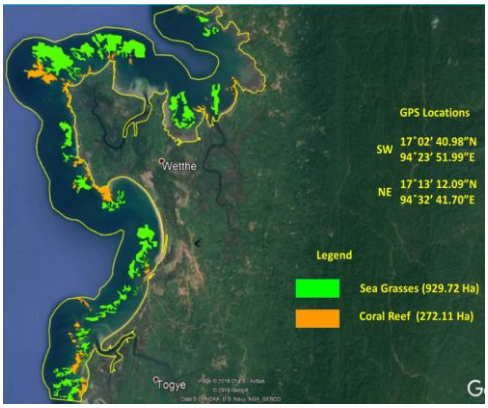
DRONE UNIT IN OPERATION

Based on a donation by Alan Laubsch of a new drone for mapping, a training program for WIF drone pilots was implemented with Christian Shaerer of Regen Network. This initiative is a follow-up of drone planting in cooperation with BioCarbon Engineering, Oxford (BCE). In 2018 BCE conducted two test operations in our projects with advanced drones. This cooperation will continue with large restoration projects planned for 2019. Al Jazeera's Earth Rise made a documentary in 2018 from our project with BCE advanced drones in operation. Drones will facilitate full transparency to partners in monitoring their trees directly by using polygons and GPS location on the Open Forest platform from March 2019. This can also be viewed on WIF's new web page www.wif.foundation

Children from Myanmar and USA planting Children Future Forest

CHILDREN FOREST

The greatest inspiration in 2018 was a wonderful wave of international commitment for climate action by the young generation caring for our global village. School children from communities bordering the climate park have established school nurseries, followed by art competition and planting the first phase of the children forest. International solidarity was offered by students of Master School in New York. Morgan, Marwin and Maxell visited the climate park in April with their parents Marlo and Monaqui Young to plant trees, produce a video and plan a mobilization campaign for schools in the USA. The Swedish School in Portugal provided support for a separate children forest, followed by the International School in Yangon for further action.



From 2020, a new area of 3100 Ha will be restored in cooperation with local communities in Ayeyarwady region, at the Bay of Bengal. Adjoining this and the 2200 Ha to be completed in 2019, we are working with Pathein University to develop a 1000 Ha blue carbon area as the regions' first marine protection park for conservation of sea grass and coral reefs, as well as of endangered dugongs and sea turtles.

BIO DIVERSITY

2018 was a ground braking year with visible signs of life returning after forest restoration. The trees planted from 2015 are in healthy growth while giving shelter to endangered species. Wild elephants were spotted for the first time in 2018 after years of forest destruction, as well as mangrove monkeys, rare bats and wild birds. And the endangered Bruguiera Hainesii mangrove species on the IUCN red list have been multiplied with over 1,000 trees planted.

Bruguiera hainesii tree flower

Our Mangrove Genebank with 34 different mangrove species established in 2018 will be planted with additional 30 species in 2019, hosting all mangrove species found in Myanmar, in addition to seedlings from the world's largest known 64 meter tall mangrove tree from Equador.

Clam farmer Thein Thein Sein is full of happiness as she looks upon her zero-investment clam farm in Myagi village of Shwe Thaung Yan sub township in Ayyerwady region of Myanmar. Credit: Stella Paul/IPS

LIVELIHOODS

After completing planting of the first phase of Thor Heyerdahl Climate Park, our efforts to provide income opportunities, especially for women, increased in 2018.

- 50 women assisted to establish their own clam culture ponds,
- 15 women trained to produce textile with natural colors from the mangrove park and in embroidery to increase the value of their ready-made garment products. Patricia Bjerkholt provided additional support for these activities.
- 20 girls were awarded scholarships by Marianne Raven's Foundation to prepare for university admission as the first women from the area.
- 50 youths were trained in computer operation and English language.
- Plans were completed for bee honey production from mangrove trees and for seaweed production, as well as expansion of oyster production and other seafood culture, with the potential for over 100 new livelihoods for women.
- Number of crab fishermen increased from 2 to 22 in 2018 due to additional crab resources after mangrove restoration (Mangroves increase seafood resources by over 50%).
- 4 schools were awarded solar panels and computers for training.
- Plans for a solar power mini grid were completed in 2018 for implementation in 2019 to power small scale cottage industry projects.
- Equipment for an oil press to produce biofuel, flax seed oil and virgin coconut oil was purchased in 2018, ready to start operation as soon as the solar energy project is completed. Next production equipment is an ice plant for the fishing community to avoid losses (presently around 40% of catches).
- Training of bee honey operators and installation of 5 bee hives as a first stage was prepared for implementation in early 2019. Honey from mangrove forests is regarded as a top-quality organic product. This activity represents large potential with flowering mangrove trees in all areas.

CARBON FOR CLIMATE FOOTPRINT OFFSET

The project reached a new milestone in 2018 with the first mangrove VCS approval in Asia. After 2 years hard work with documentation and field activities, the internationally recognized validation institute VERRA awarded WIF the right to market 3.5 million tons of carbon from the first restoration project started in 2015. The amount valid for sale will gradually increase, reaching its maximum in 20 years. Mangroves are the most effective carbon mitigating plants, up to 5 times more than terrestrial trees and store carbon permanently in the ground.

Our first trading partners were Cool Effect and Salesforce of USA. They have also secured carbon offsets for 2019, in addition to Sundt Air and Bio8 of Norway. Our marketing manager Rene Post in the Netherlands reports increasing interest for our high-quality blue carbon project. This special value is due to high efficiency by mangroves, combined with ocean protection, bio-diversity and livelihoods/sustainable community development. 50% of the net income from carbon sale will be shared with our partner communities. This will provide sustainable income for up to 100 years, as long as the forest is protected. Carbon sales contribute significantly to meet our target of a 100% increase in family income for the partner communities, including all UN Sustainable Development Goals while contributing to the Paris Climate Agreement.

The Orchid Project

After 3 years collection of seeds from Myanmar's endemic endangered orchid species, the project was completed in 2016 with seeds from 440 species. Most of them have been sent to Svalbard Global Seed Vault for permanent storage in the permafrost vault. Seeds from 38 species collected in 2018 will be sent to the seed vault in early 2019. WIF's orchid specialist, professor Max Hansson from Karlstad University, Sweden, will be in charge of packing and transport of the collected seeds.

The project was initiated by His Majesty King Harald V of Norway in 2014 during his official visit to Myanmar as a national gift from Norway to the people of Myanmar. WIF was requested by the Royal Norwegian Ministry of Foreign Affairs to implement the project in cooperation with Myanmar Forest Department/Ministry of Natural Resources and Environmental Conservation.

EARTH RESTORATION

WIF's Senior Science Director, Dr. Ranil Senanayake, founder of Analog Forest and Chairman of Rainforest Rescue International, is launching a new eco-system project focusing on all life bearing forest service's combatting climate change. The first practical trials will be in WIF's

climate parks in cooperation with Pathein University. This is a pioneering initiative to develop complete validation of all climate forest eco system services. In addition, in cooperation with Regen Network, WIF has taken the initiative to develop a new validation system by using advanced drones with powerful sensors and artificial intelligence to achieve maximum accuracy. This will be implemented in 2019/20 in cooperation with WIF's partners Sundt Air's drone unit and BioCarbon Engineering.

MOTIVATED PROFESSIONAL STAFF

Thanks to valuable support from over 100 trained planters (70% women) and our highly motivated and professional staff, remarkable progress has been achieved with a modest budget. Our aim is to maximize impact by carefully using available resources in following up the need for immediate action.

We are happy to highlight contributions by U Win Maung, our mangrove restoration manager who is regarded as one of the world's most effective mangrove forest developers. He has created a force with young graduates from Forest University rendering valuable service. Thanks to professor Dr. Htay Aung for support in blue carbon and marine science development, and our carbon validation specialist, Mr. Suraj Anuradha Vanniarachchy. Thanks also to Kjell Vagle and Andreas Luksepp for support in designing a new web page and communication strategy. Our new Managing Director U Bo Ni started his service with WIF in 2018 but he has been supporting our projects since the beginning while being Director at our partner the Forest Department. We also thank our Finance Manager Ms. Win Sandar, Communication Manager Ms. Soe Sandar Oo and as well as all other staff offering effective service in achieving our ambitious goals.

Our President Bjorn Heyerdahl, Chairman U Aye Lwin, Vice-chairwoman Monaqui Porgter Young and members of the Board Dr. BremleyLyngdoh, SubdahraBelbase and AmadouTaaldeserve special thanks for their valuable contribution. Together with a growing partnership in reducing the risk of galloping climate change while supporting disadvantaged communities, we are committed to increase our efforts towards a sustainable global village.

The climate war cannot be won by words and declarations only. Practical action is urgently needed. Mangrove restoration is a simple and cost-effective solution to climate change, nature's own method tested during millions of years. Everyone can contribute and have a tangible impact on the biggest challenge in human history. Welcome on board our journey towards a promising future.

Arne Fjortoft
Secretary General.

Planting for the future!