WORLDVIEW INTERNATIONAL FOUNDATION

ACHIEVEMENTS 2019

- ***A year of rapid expansion for our climate parks. 4 new areas with mangrove restoration on 7,000 Ha in progress with 6 communities.***
- ***Completion of the Endangered Orchids Rescue Project. Seeds from 440 endemic Myanmar species securely stored in the Global Seed Vault in Svalbard.***
- ***Completion of Thor Heyerdahl Climate Park with 9 million trees, combined with livelihood activities in 5 partner communities. The project is estimated to mitigate 3,6 million tons CO2 climate gases, in addition to life bearing eco system services and increased income for families below the poverty line.***
- ***The first marine protection zone approved for implementation. To be implemented as blue carbon initiative in cooperation with Pathein University for protection of endangered sea grass meadows, coral reefs, sea turtles, dugongs and other endangered species.***
- ***Increased global support propelled our blue carbon climate activities to new highs in 2019.***
- ***Record high 96% survival rate of plants achieved with 4 years applied research (global average for mangroves 50%). In addition, new methods were successfully developed to reach maximum cost-efficiency without compromising quality. These milestones made it possible to scale, providing maximum support to Paris Climate Agreement and UN Sustainable Development Goals.***

First Climate Park competed.

Thor Heyerdahl Climate Park on 2,100 Ha was successfully completed at the end of 2019. Severely degraded mangrove areas have been restored to thriving forests with biodiversity, now teeming with life over and under water. Sea food resources have significantly increased. Young trees in healthy growth have started blooming and fruiting. It has attracted bats, monkeys, birds and bees, as well as many other species. The most significant is majestic wild elephants seeking shelter among the fast growing mangrove trees. A miracle has emerged. Nature restored. Life is back!

Mangrove trees mitigate 5 times more CO2 climate gases than other type of trees. They are cooling the air, filtering run offs to protect sea grass and coral reefs in the ocean under their majestic root systems. Moreover, mangroves protect lives and homes from cyclones and other extreme weather, protecting sea shores from erosion due to sea level rise from melting glaciers thousands of miles away in the North and South ends of the world. Restoring mangrove forests has proven to be a significant cost-effective method in combating climate change.

These achievements have been possible with support from increasing numbers of partners, as well as our dedicated professional staff and trained planters, appreciating the value of restoring forests and improving lives in poverty ridden communities. Keeping trees alive provides higher values than killing trees for short time gains. With assistance from WIF, the communities have been awarded 30 years user right to the land with 50% of yearly income from carbon by VCS certification. Mangroves are

permanently storing disruptive climate gases in the wet, salty soil. Our partner communities are proud custodians of the newly planted trees, enriching lives with sustainable development from their own living forests.

With the first climate park successfully completed, we are now ready to scale our activities, aiming at larger projects with maximum impact at a time of urgent need for immediate action. Commitments have already been made for restoring 100,000 Ha and conserving 400,000 Ha during the next 10 years, mitigating over 600 million tons CO2 and supporting over 10 million people in vulnerable coastal communities. This is possible with contribution from national institutions, communities and global partners sharing our commitment for a livable future.

We are especially thankful to the Minister of Natural Resources and Environmental Conservation and the Permanent Secretary, Director General of Forest Department and staff, Forest Research Institute, Forest University, Pathein University and all other partners in Myanmar and beyond for believing in our mission and sharing our vision in mobilizing nature`s own solutions combating the looming climate crisis.

High quality human energy is driving our projects

2019 HIGHLIGHTS.

Rescuing endangered orchid species.

The Orchid seed project was initiated by His Majesty King Harald V of Norway during his official visit to Myanmar in late 2014. It was completed in early 2019 with over 10% more seed species than the initial target. That is not to say it was an easy project to implement, but rather quite challenging.

Myanmar is a rich country in bio-diversity. Its natural resources are unfortunately, as in other parts of the world, in danger of overexploitation. The country has over 800 endemic orchid species in danger of extinction. In areas known for large forest, our collection teams detected massive deforestation with hardly any wild orchid species left due to rapid forest losses. We therefore had to extent the collection time from two to four years to achieve the initial goals.

Finally, seeds from 440 endangered spices were secured for safe storage at the Global Seed Vault in Svalbard, Norway. The seed vault was initially guaranteed for safety in the permafrost area for 10,000 years, but fast moving climate change has created problems. Extra measures have recently been taken to protect the store from melting permafrost due to rapid climate change.

We are thankful for support from Forest Department and Royal Norwegian Ministry of Foreign Affairs and Royal Norwegian Embassy in Myanmar for financial and logistic support.

Improving planting methods.

100 Research plots


Yearly measurement

It is well known that several tree planting projects are less successful. Trees don't always grow up as planned. Forest restoration is much more than planting. Survival of the newly planted trees are equally important. For mangroves, average global survival rate is below 50%. WIF has therefore from day one emphasized to develop new sustainable methods. Based on several years of research and testing, we have now reached 96% survival rate, maximum of what is deemed possible.

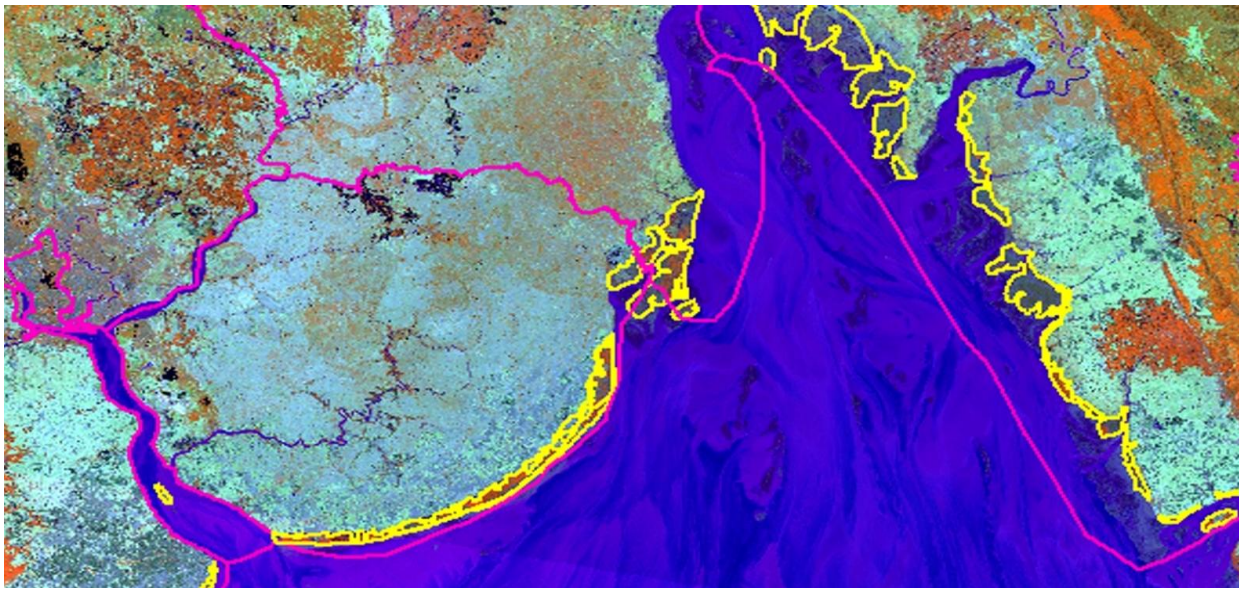

Collecting propagules for planting

Another important issue is effective planting with increased productivity. Rapid sea level rise may make it difficult to plant mangroves in the future. To utilize safe planting environment during the next 10 years, we need to speed up mangrove restoration with improved planting methods. Traditional establishment of nurseries and transport of seedlings in difficult terrains, are time consuming and relatively costly. Our newly developed method to use direct seed planting has proven successful, without comprising quality. It is now possible to store propagules and seeds for a long time during planting seasons. We can take on larger projects and reach maximum impact in less time than using conventional methods, achieving immediate needs for urgent climate action.

Planting on wetlands

As a part of our comprehensive research, we have for the last 4 years been studying emergence of new land being formed in coastal areas with river flows. Over 40,000 Ha new land has been observed in Mon State and other areas. This type of land is initially categorized as mudflats, for thereafter to take form as grassland or wetland, ideal for mangrove planting.

There are also grass land areas in Yangon and Bago Regions ready for mangrove planting. Mangrove forests here will function as a natural shield from tsunamis, cyclones and other extreme weather. Mangrove restoration will protect lives and properties in these vulnerable coastal communities with over 10 million people.



We are thankful for encouragement from the Forest Department and the Mon State Chief Minister and his Cabinet for valuable support and cooperation in moving fast forward with this life protecting project. It will also provide livelihoods with increased income from carbon value to be shared with partner communities, in support of Paris Climate Agreement and UN Sustainable Development Goals in one project.

Conserving mangrove forests.

Committed to restore 100,000 Ha in Myanmar, we are also working with Forest Department and Regional Governments to develop new methods in conserving over 400,000 Ha existing mangrove forests. 60% of the people in these remote areas live below the poverty line. For many, cutting mangroves helps to get food on the table or meeting other basic needs. Mobilizing communities as custodians of the forests with yearly rewards for protecting the trees is therefore the best solution to stop illegal deforestation for short time gains. Our partnership with communities, tested during several years, has proven that empowering communities to take care of living forests will generate rewards for all stakeholders; national policy makers, communities struggling to overcome poverty, and global partners providing grants or investing in offsetting their carbon footprints. Every participant benefit from the same goals by keeping the forest alive. This is a winning solution for all.

We are now ready to expand our restoration activities and start the first he first mangrove conservation project on 28,000 Ha in 2020, to be followed with larger projects from 2021.

International conference on sustainable climate investment.

WIF is a hands-on practical organization believing in direct action. We benefit greatly from cooperation with likeminded partners committed to climate action. Due to requests for consultation with our partners, we called an international conference in October 2019.

The world`s most experienced mangrove researcher, Dr Kogo Motohioko from Japan shared his exceptional experience with the participants and was awarded WIF`s climate environment prize for 2019 for supporting mangrove restoration in Myanmar and many other countries. He is regarded as the most outstanding mangrove scientist in the world. His former student, WIF`s General Manager U Win Maung handed over the environment price to his inspiring teacher.

Participants from many professions exchanged experiences during the conference; financial and block-chain specialists, business executives, climate activists, senior public officials, Environmental Minister from Mon State, representatives from NGOs, regional and national institutions, fashion and IT professionals and many others, all committed to climate action. Mr. Svein Tveitdal, internationally acclaimed climate activist, former Director UNEP and Chairman of Climate 2020 gave an overview of the latest climate change research, while other speakers focused on natural climate solutions. Ms. Margot Wallstrom, former Minister of Foreign Affairs, Sweden and former Vice President of EU, shared her experience from visiting the climate park and encouraged the participants to increase their support for mangrove restoration. Among several funding commitments, WIF signed an LOI with KEPCO and EcoEye of Korea for a large mangrove restoration project with Korean funding. The conference was organized in cooperation with Myanmar Institute of International and Strategic Studies.

Korean Green Investors visiting WIF Wetland Planting Areas

Creating business models for sustainable development.

Climate change is a fact. Urgent action is needed. This historic challenge for life on Earth needs broad based participation including the business sector which represents the largest financial resources.

WIF's pioneering projects would not have been possible without wide support from multiple funding sources, from Letten Fund for 3 years research, to be followed by contributions from Bio8, Brodrene Michaelsen, Starboard, Sundt Air, Pegasus Helicopters, Storebrand Insurance, Arcala Radio, Tree Coin Investors, Wonderfruit Festival, Soho Hospitality. MAHA Agriculture, Voldstad Eiendom, Salesforce, Cool Effect, Eco Act, EcoEye, KEPCO, Korean Impact Carbon Corporation, VNV Consultancy, WeForest, CEMAsys, Funk, Blue Life, NORAC, Happi Earth, Global Mangrove Trust, Svenska Skolan Lisabon and others, as well as many individuals; Tor Bratli, Marianne Raven, Patricia Bjerkholdt, Alan Laubsch, Simran Mulchandani, Rune Kippervik, Kjell Veivaag, Juha Hulko, Martti Laine, Anne Koppang, Ryan Merill, Monaqui Porter Young, Chris Bertisch and many others, all believing in effective climate action.

Our sustainable business model has been created to meet carbon offset needs of corporations and other business entities based on a proven VCS carbon platform. Our high quality Thor Heyerdahl Climate Park became the first Asian mangrove project to be approved by VERRA. 50% of income is shared with partner communities to be used for livelihood projects as insurance for long term survival of the forest. This new funding model has mobilized individuals and companies to invest, rewarded by annual carbon yields with sustainable benefits.

Interest for carbon finance is growing. We can now offer full carbon offset from our mangrove projects. Everyone can participate and become carbon neutral. Some of our partners like Starboard and Sundt Air have opted to become carbon positive, offsetting double of carbon emitted on a yearly basis.

Our high quality blue carbon from mangrove restoration/conservation and from sea grass conservation have become very attractive, with international coordination by our marketing office in the Netherlands headed by Mr. Rene Post. This has significantly improved our funding capacity. We will follow up our pioneering efforts with the first coral reefs mitigation as soon as a validation methodology for VCS is approved. Nature is bountiful as long as it is alive!

Livelihoods.

Our method/business model is to plant and protect mangroves, sea grass and coral reefs in support of living oceans producing effective blue carbon mitigation. This natural method contributes to our ultimate aim: Sustainable Development with livelihood support and women empowerment, combatting poverty and human misery in disadvantaged communities. All our mitigation projects fulfill the UN Sustainable Development Goals.

The ultimate challenge is literally to combat darkness with light. All school roofs in our areas are provided solar panels, followed by introducing computers with training of students, lightening up isolated communities to the world. The projects also empower all school going children with solar lamps. Home lessons can now be completed in bright light with this solar miracle, creating a new dimension for people; from a life in the age of darkness to the age of life.

Creating income from local sustainable resources is in process. A number of small scale livelihoods projects have been developed: clam and crab culture (the first crab hatchery ready in early 2020 headed by locals trained in Vietnam) to be followed by sea weed production and fish culture, cold pressed virgin coconut oil and other small scale projects to be managed by the communities. In addition, all homes are supported with fuel saving stoves are introduced

As part of the long term goals, 9 months training program in Social Entrepreneurship was completed in 2019 in cooperation with EDNA supporting 24 students from communities with ambitions to overcome poverty by contributing to community development. This successful training will be introduced in all new project areas based on proposals by elected community development committees. Our goal is to bring everyone above the poverty line with full participation of all stakeholders.


Climate Soldiers in action

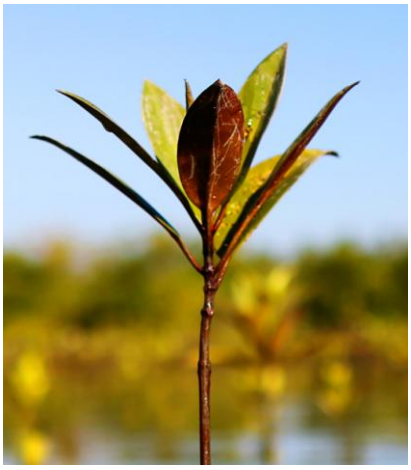
With time running out for decisive climate action, large scale mitigation projects is a viable solution for immediate action. Our major challenge is to reduce the amount of CO2 climate gases stored in the atmosphere**,** with 414,11 mpp. by February 2020 measured by Mauna Loa Institute in Hawaii. This is the highest level of destructive climate gases in the atmosphere in over 3 million years. It leads to rapid melting of ice sheets in the North and South, with increased sea level rise threatening coastal areas with over 600 million people. This destructive process is happening much faster than earlier expected. It is therefore not enough to look forward to 2030 or later for reduced CO2 emissions, which should anyhow have been done many years ago. The overflow of carbon from fossil fuel in the atmosphere will be haunting us for years to come, regardless of potential emission cuts sometimes in the future. Good news is that the climate gases accumulated in the atmosphere can be mitigated by massive tree planting and effective forest conservation with stop of forest fires and deforestation fueled by human greed. With no immediate action, we risk our future going up in smoke.

The Amazon rain forest which traditionally mitigates 2 billion tons CO2 yearly has by 2020 lost mitigation capacity with 20% due to rapid forest destruction, mainly in the South East of Brazil. This madness must stop, not only in the Amazonas but in all other global forest areas, as well as restoration to be immediately started to compensate for recent large scale forest losses. A global study has proven ample

land available for massive tree planting. More trees is a guarantee for life on Earth. No need for further delays. The process must start today!

Mangrove restoration and conservation on a global scale is the most cost effective action in combatting climate change.

There are 120 countries with mangroves. Instead of rapid forest losses as of today, time has come for restoration and conservation of this valuable climate solution. We are gearing up to be helpful in supporting coastal communities in any country ready for action. Mangroves mitigate 5 times more carbon than terrestrial trees, and are vital as a protective shield from extreme weather and sea level rise in vulnerable coastal communities. Millions of lives can be saved if action is taken immediately.



We are committed to share our experience and contribute to sustainable bio diversity in every country with mangrove potentials. Our highly motivated professional teams are ready for action Mass mobilization is needed. All are welcome as partners in promoting life bearing natural solutions.

February 2020.

Arne Fjortoft, Secretary General WIF.

"We appreciate the difficult and complicated work that Worldview International has completed in order to bring this high value, carbon emission reduction project to fruition. To undertake a project of this scope, to involve the community in the way that it has done, to complete the necessary validation, monitoring and verification required in a remote area such as this is truly Herculean. We are proud to work with Worldview and to offer this incredible project to our clients."

Dee Lawrence
Founder and CEO Cool Effect, USA