

## Krailart Niwate Mangrove Ecosystem Preservation Project Development 2020

Krailart Niwate Mangrove Ecosystem Preservation Project, the last remaining mangrove ecosystem in Hua Hin, Thailand is a reconstructed wetland project and an urban nature reserve in the centre of the city raising awareness on the importance of mangrove ecosystems while promoting eco-spiritual tourism in the region. Krailart Niwate is a public-private partnership of Wat Khao Krailart, Preserve Hua Hin Group, Chiva-Som International Health Resorts Co., Ltd. and Silpakorn University. Chiva-Som staff began reforesting the mangrove area in 2007 with the planting of over 5,000 trees to create the luxuriant forest that it is today, and sponsored the construction of the 1,000-metre elevated boardwalk throughout the ecosystem at the cost of THB 7 million in 2015.



Commemorating World Environment Day on 5th June, Chiva-Som launched the next phase of Krailart Niwate development expanding the reconstructed wetland area by 50% on an adjacent, barren floodplain. The expansion of the mangrove forest area is located on a six rai of land west of the Buddhist temple, Wat Khao Krailart. An integrated network of 26 canals were built to provide a constant supply of water from the existing canal that leads to the Gulf of Thailand.



Landscaping staff members planting 200 seedlings of the *Rhizophora mucronata* and *Rhizophora apiculata* species in honor of Her Majesty Queen Sirikit's Birthday and Mother's Day in Thailand on 12<sup>th</sup> August.

Over 50 members of the Chiva-Som Family gathered to 'build the forest' with the planting of 400 *Rhizophora mucronata* seedlings indigenous to the region to transform and create another thriving ecosystem in the city. The project is going to continue throughout the year by completely reforesting the new mangrove area with a total of 5,000 trees of various mangrove species to increase the biodiversity.

Over the months we planted another 1,600 mangrove seedlings of *Rhizophora mucronata*, *Rhizophora apiculata*, *Ceriops tagal*, *Avecinnia marina* and *Sonneratia caseolaris* increasing the total number of trees to over 2,000 by the end of November.



On 31<sup>st</sup> July to commemorate the International Day for the Conservation of the Mangrove Ecosystem, we officially opened the new staircase that provides easy access from the Krailart Niwate mangrove boardwalk to the mountain temple of Wat Khao Krailart. The construction of the staircase was made possible by the THB 1 million donation from Siam Commercial Bank PCL. The construction of the staircase took two months to complete during June and July at a total cost of THB 1.3 million. The staircase is made from concrete with internal steel reinforcement and matches the design of the existing mangrove boardwalk. Chiva-Som sponsored the renovation of the yoga pavilion and meditation area on top of the mountain with new floor tiles and paint work, and repair of the roof structure on the sala at the cost of THB 268,864 in January.



Expanding the scope to educate the visitors to Krailart Niwate, signboards were installed with pictures and diagrams to explain the unique characteristics of mangrove ecosystem. The topics include mangrove ecosystem services, threats to mangroves and Blue Carbon systems.

On 10<sup>th</sup> May 1991, His Royal Highness King Bhumibol Adulyadej addressed the importance of mangrove ecosystems in Thailand. The Marine and Coastal Resources Management Act was enacted in 2015 as a mangrove conservation and restoration policy to help protect the 2,600 km of coastline shared between the Gulf of Thailand and the Andaman Sea. This law enables the participation of communities, local governments and other stakeholder groups in the rehabilitation and conservation of mangrove forests.



The Chiva-Som Family joins together in monthly rubbish clean-ups at the Krailart Niwate mangrove forest to remove any items littering the ecosystem. An assortment of discarded plastic, glass, paper and metal items are regularly collected to maintain a pristine environment and reduce the chance of any wildlife being harmed by the waste materials polluting their habitat. Chiva-Som provides morning meditation and yoga sessions for our guests on the mountaintop at Krailart Niwate.

The Preserve Hua Hin Group and the Chiva-Som Grounds & Landscape team replaced seven dead trees in the car park area at the entrance to Krailart Niwate on 15<sup>th</sup> July. The trees planted are of the species of Chamchuri, Mahogany and Plumeria and a total of THB 43,500 was spent on this project. The car park area has also been used as a community gathering venue to host marathons, citywide clean-ups and other outdoor activities over the last five years.

We are committed to playing a leading role in ecosystem preservation and conservation while increasing awareness among our younger generations, and involve our staff, guests and other interested parties to join with us. We look forward to offsetting our carbon emissions and will offer a carbon-neutral stay for our guest in the near future as mangroves play a significant role in this project with their extraordinary ability to capture and store carbon dioxide in the fight against climate change.

