

Case Study

“FronD Circles”

A sustainability initiative to responsibly dispose of Coconut Palm fronds.



Background

Kandooma Maldives is a small private island of 32 acres with beautiful white sand beaches and planted heavily with Coconut Palms to provide shade and protect the island from erosion. The Coconut Palm discards its leaves (fronds) leaving gardeners to collect and discard them, in order to keep the resort pristine for guest enjoyment and to minimise fire risk.

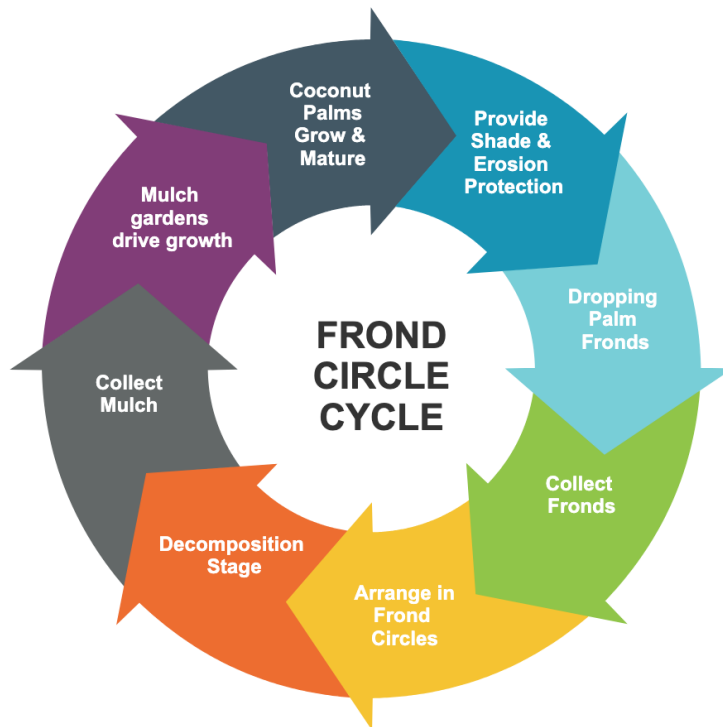
Across the Maldives, this green waste is typically collected by gardeners and stock-piled for transport and disposal. A diesel-powered barge is then rented to collect the waste, and then it is shipped 30km to a central waste depot only to then be discarded into a landfill or burned. This creates damage to the waterways through diesel-powered boats and does not offer a circular sustainability cycle pro-environment.

Palm Fronds do have other uses including basket weaving for example.

The Idea

The General Manager (Mark Eletr) having had experience managing island resorts in other countries had seen an activity of stock-piling the palm fronds in Australia where they would wait some time for decomposition and later use that bi-product as mulch.

It is a simple concept where fallen palm tree fronds are arranged in a circle, much like a clock face, layer upon layer, to a height of 1.5 metres. When the height is achieved, the fronds are stable against the wind blowing them away. No further layers are added to the FronD Circle. Over time, the weather, insects and nature are left uninterrupted to work their magic.



Measurement

Implementation date: March 2021

FronD Circle complete: December 2023

FronD Circle measurement: Height 1.5 metres; Diameter approximately 7 metres

FronD Circle decomposition: 3.5 years to November 2024

FronD Circle decomposition height: 75cm

Biproduct mulch result: 50 x 20KG bags of Mulch

Outcome

We monitored the progress of the decomposition carefully. Within two years the fronds had decomposed down to a height of 75cms (50% reduction) of rich, useable compost for our regeneration projects and gardens.

The FronD Circles are much more than compost creators. They have eliminated the use of diesel-powered vessels to transport the garden waste off-island, which was a major environmental win. They also provided a simple way to enrich soil and manage the coconut palm discarded fronds in a tidy way within the grounds, befitting an upscale resort.

When we consider sustainable circular economies we see clearly that there is no waste in nature. This project illustrates a true circular economy.

UN Sustainable Development Goals:

This initiative supports:

13 - Climate Action

15 - Life on Land

IHG Journey to Tomorrow:

Goal: Pioneer the transformation to a minimal waste hospitality industry.

The FronD Circles is not a direct answer to the goal above which is focused on food waste and single use plastics, however does fit as supporting a minimal waste goal. To discard the palm fronds in the traditional way is expensive and takes a direct toll on the environment.

Recommendations

1. Share with IHG Journey to Tomorrow as a best practice for island or destinations with Coconut Palms.
2. Share via Media Release as a Sustainability story.
3. Continue the practice of Frond Circles at Kandooma Maldives

Prepared by Sharon Garrett, Director of Marketing, Holiday Inn Resort Kandooma Maldives in consultation with Mark Eletr, General Manager.

