CASE STUDY: THE DATAI LANGKAWI

LANGKAWI, MALAYSIA

Vision:

The Datai Langkawi is committed to protecting its natural heritage and unique biodiversity through their sustainability initiatives, including a commitment of zero waste. Through this and other programs, the resort aims to inspire guests and the community alike to take responsibility to preserve its environment.

Approach:

The sustainability works started with an impact assessment at the end of 2017 when the resort closed for extensive renovations. Part of the rebranding of the resort included the implementation of major sustainability initiatives and every aspect of the operation was put under the sustainability microscope so that the negative impact on the magnificent natural forest could be minimised.

Initiatives:

- Drinking water bottling plant;
- No single use plastics;
- A permaculture garden for food production, designed by Mark Garrett, including an organic wealth centre for compost making, a big worm farm and bee hives;
- A PURE Centre where all the hotel's waste is sorted, processed and prevented from going to landfill by employing a circular economy model to the waste stream;
- The resort has also developed "The Lab" an upcycling laboratory where guests can see and learn about upcycling initiatives and guest artists can showcase their skills;











- Water from the sewage treatment plant is pumped to the wetlands to be purified by plants. The water then flows into a pond, to be used for irrigation and finally excess clean water flows out to the stream;
- Outdoor classrooms have been created to help guests discover how saplings and seeds are saved, stored and maintained; and
- Fish for the Future an initiative which involves building artificial reefs is being monitored by The Nature Teams marine biologists; engaging the local community and its fishermen; and a Coral Nursery where corals are to be transplanted back into the ocean when they mature and can be propagated.





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Outcomes:

At the end of the process the resort completed the installation of a small incinerator for items like diapers, cigarette butts, hygiene items, and the small percentage of waste that cannot be diverted, reused or recycled. The gasses of the incinerator are scrubbed through a filtration system and air quality is monitored around the incinerator. The ash from the incinerator as well as the contaminated material from the scrubber will be put into concrete for sequestration.

The newly built Nature Centre concentrates on keeping the wildlife, forest and ocean pristine and showcasing it to the discerning guests of The Datai.

The resort achieved EarthCheck ECO Certification in November 2019.

"We are currently separating around 100 items daily and processing around 45T of waste a month and we are diverting about 93% from the landfill - about 100kg a day which will be incinerated. This was before the commissioning of the incinerator. Circuit boards and batteries are still a concern and we are looking at economically feasible recycling solutions. Interesting to note here that of the 45T of waste we sell about 1-2 T a week to recyclers so only about 20%. We have learned that recycling is not something to rely on as a silver bullet. We have to find ways to design materials into a circular economy and out of the current linear model." Piet van Zyl, Pioneer, Positive Impact Forever









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