

## **Spice Village, Thekkady, Periyar** **An Imaginative Approach to the 5 Rs and Harnessing Worm Power**



*Furniture made from recycled pine packing cases.*

Spice Village takes an imaginative and proactive approach to the 5 Rs – Refuse, Reduce, Reuse, Recycle, Recover. With a pioneering approach to reusing old materials, pine packing cases sourced from the nearest port 25 years ago were artfully remade into furniture. Excess upholstery material is made into shopping bags. Two bags per household have been distributed to 550 local families and promoted in food and beverage outlets to cut down on local plastic waste.



*Reusable glass bottles filled on site at the resort's bottling plant.*

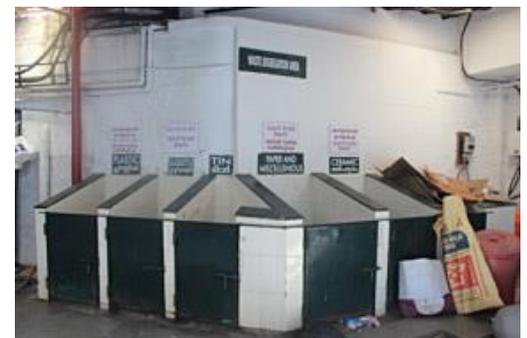
An award-winning on-site bottling plant using water treated by micro filters, reverse osmosis and biodynamisation and reusable glass bottles is saving 36,000 plastic water bottles each year. A Local Area Network for inter-office communication is in place to reduce printing and paper wastage.

Litter bins in the grounds are designed to segregate waste and keep grounds litter free. Waste sorting facilities segregate non-biodegradable waste into paper, plastic, glass, tin and ceramics. Newspapers and magazines are transformed into guest stationery, leaf letters



*Litter bins in the grounds.*

and manuals at the resort's paper making centre which produces 200 handmade papers a day. Waste pineapple crowns are used as a tenacity enhancing agent which increases the binding quality. Other waste streams are sold as scrap to an authorised scrap



*Waste segregation at the resort.*

merchant. Plastics are recycled for use as non-food plastics. Glass, tin, china and glass are sold to bulk purchasers in the industry.



*Turning paper waste into an opportunity for guests.*



*Guest stationery and literature using paper made on site.*



*Biogas unit.*

A biogas plant at the property converts biodegradable waste into methane used for cooking. The remaining slurry diluted with water (1:20 ratio) provides fertiliser for the vegetable garden.



*Vermi-composting operation transforms 100-150kg of food waste per day into compost.*

Vermi-composting with the *Esinia* species of earthworm purchased from a local NGO is also used to convert cooked food waste, meat trimmings and fresh vegetable cuttings into a rich fertiliser for the property's two-acre vegetable and herb gardens in a 45-day process. Two people are employed for the system's upkeep which processes an average of 100-150 kg of food waste each day. Waste is spread out in tanks, 78 in total each holding 20 kg, and covered with a mixture of cow dung and dry leaves. Once the tanks are 75% full, the food waste is left to bio-compost for five days and 5-10 kg of earthworm culture is added to each tank topped off with a moist jute bag spread on the surface to multiply the worms. Compost harvesting starts from day twenty delivering an amazingly rich fertiliser thanks to worm power.



*Thriving certified organic vegetable garden fertilised with rich compost from recycled kitchen waste.*