



Five kilogram coir fibre pith blocks

The relentless din of the countless machines drowned out all other sounds. Stepping through, our curious gazes shifted from one person to the other, all busy, scurrying here and there, their deft hands completing each task swiftly. As we stood watching all the bustle at EarthScape in Naththandiya, it is with wonder that we realised that the use of coir in agriculture knew no bounds and that we have just managed to scrape the surface...

Words Krishani Peiris **Photographs** Menaka Aravinda

EarthScape

Initiated nearly 15 years ago, EarthScape—an export oriented company—specialises in agricultural or horticultural products that utilize coir. Spread across a sprawling five-acre land, the products produced include coir blocks, coir fibre pith bale, coir briquettes, coir grow bags, husk chips, coir disks, coir geo textiles, weed control mat and mini coir cubes among a host of other innovative items that EarthScape adds on as they discover more novel ways to employ coir. As such we were at their coir plant in Naththandiya set on exploring how coir is used not only in Sri Lanka but all over the world...

At the plant

Trucks laden with bags of coir make their way through the gates and into the premises stopping at the weighing station, after which each was directed to the massive storehouse to be unloaded and stored. Workers ready at hand unloaded the bags to the already stacked warehouse. "The warehouse stores about 2,000 metric tonnes," explained Kaim Samahon, Chairman of EarthScape. "We mainly store so that we will be prepared for the monsoon season when it is hard to get the raw materials in order to operate continuously."

The process of deriving the desired 'coir-fibre pith' that is used in the production of coir products in agriculture starts in small fibre mills of the coir suppliers, who first take the coconut husks and soak them in fresh water ponds. EarthScape employs some 400 such small fibre mills to procure their daily supplies of coir fibre pith. The soaked coconut husks are then passed through a special machine that separates the coir-fibre pith from the fibre. It is this fibre pith that is brought to EarthScape and used while these separated fibers are utilized in the production of mattresses, yarn and much more by others. The coir-fibre pith brought thus are first examined to determine the salt and potassium content, moisture levels and sand content among other factors to verify the quality of the raw material. Low salt levels indicate a fibre pith that is of better quality. If need be, the fibre pith is directed to a separate space to be either 'blended'—a special technique used at EarthScape—or washed to reduce the salt content. Otherwise the normal procedure includes sun drying the fibre pith on cemented drying floors, sifting and then finally grading it to match customer specifications before directing towards each production line at the plant.

"We have different varieties of coir pith such as red pith, black pith, fresh pith, high salt, low salt, fine dust, coarse and more. They are used for many different purposes and here at EarthScape we are getting better at 'blends'," remarked Samahon. "Our biggest competitor right now is India. However, I feel that they cannot compete with Sri Lanka, because our pith has a better quality and further we are getting much better at value-added coir-fibre pith products as well."

In the production lines, the fibre pith is compressed by different machines to produce blocks, briquettes, disks, grow bags and so on. However, this is just part of the items manufactured at the plant. For example there is a product produced specially for Japan to control soil erosion along highways. Named Coir Geo textiles, the product includes a tailor-made net purchased from a supplier down south that is sent to Japan along with uncompressed fibre pith. Another product called the dry pith is made by manoeuvring the raw material through U and N shaped conduits to rid unnecessary particles such as stones that may damage machines abroad. Yet another product named the loose pith is now

becoming a hot commodity, especially in USA, for pet bedding.

Before stepping into the plant, we lingered a while outside where mountains of fibre pith surrounded the expanse. Pointing at the mountains and then at some that were laid out in mats, Samahon said that they are laid out thus to be dried in the blazing sun. Inside the plant, all was a buzz with the sounds of countless machines mingling with the occasional shouts of the workers. Some women were shoveling fibre pith that are sorted at the grading point to carry to the respective production lines. At each production line one person would measure the amount of fibre pith to be included in each product on a weighing scale before processing it in a machine. Machines for 5kg blocks, 650g briquettes, disks and so on stood at different points where items produced are then neatly stacked together before being loaded to the containers that are parked at the docking station. Not a single raw material was led to waste as even the products that were cast wrong were again recycled and each waste material is put to manufacture another product, ensuring the eco-friendly nature and the sustainability of coir, which in itself is considered to be a waste product of the coconut tree.

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Emerging from one building we crossed over a large empty space—an area layered with concrete dedicated for drying coir—to an open shed. Here about three workers were busy taking coconut husks and running them through a machine to make husk chips. Yet another machine with a net running around its length stood in a corner and a woman was shoveling in husk chips that was sieved through a contraption grading it to four grades as S, SS, SSS and SSSS—ranging from dust to large particles. Fine dust particles fell through the nets leaving bigger particles trapped within and the fine dust was gathered for production.

Working tirelessly the workers, divided into several groups, showed much unity and strength which showcased their sheer dedication to accomplish each task. As such an enchantment unlike any pervaded the area where the will of the hard working people and the fine dust particles that shimmered gold in the rays of the sun intermingled... Engrossed in this enchantment we remained for sometime, now wiser to an industry that is perhaps unique in more ways than one...

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