

## CIRCULAR ECONOMY BUSINESS CASE STUDIES IN SOUTHEAST ASIA



## Happyhands

-  Vietnam
-  Agro-industry
-  [happyhands.vn](http://happyhands.vn)
-  Analysis period: 2019-2023

## Greening Bamboo and Rattan Production

## Business Spotlight

The Happy Hands Manufacture and Export Joint Stock Company (Happyhands) was established in 2018 in Chuong My Village, which is known as the 'land of rattan', renowned for artisanal bamboo and rattan weaving. Happyhands has developed into a key player in design and manufacturing of a wide range of product categories made to the highest environmental standards from bamboo and rattan. Happyhands works to preserve and promote the traditional craft skills and designs of Vietnam by greening the production process. The company is successful in turning bamboo and rattan waste into secondary resources to make new value-added products for export markets through waste utilisation and product design. This creates additional jobs and secures incomes for many rural workers, mostly women weavers. Happyhands has attracted considerable attention from market participants and suppliers for its circular economy initiatives. Products of Happyhands are now exported to countries worldwide particularly to the USA, the EU, Japan, South Korea and Thailand.

 Keywords

Bamboo and rattan waste, Handicraft

 Innovation

Product/service design, Manufacturing, End of life management, Resource circularity, Resource efficiency



# Analysis of Happyhands

## Context and baseline

The Vietnamese people have traditionally produced a large variety of craft products which form a key part of the country's cultural traditions and have also been widely used as household goods. Handicraft production plays an important role in poverty alleviation and pro-poor growth, in particular, in rural and remote regions with relative abundance of natural materials for crafts production. Crafts production can help to preserve ancient traditions, designs and skills. Many of the craft villages have leveraged to become tourist destinations, sources of exports, and bring remarkable benefits. Bamboo, rattan and other raw materials used in handicrafts production are an important part of Vietnam's natural capital. In the production process however, the inner core and bamboo and rattan offcuts are discarded as waste.

Inspired by the prospect of protecting cultural heritage for current and future generations, increasing business and livelihood opportunities and reducing negative environmental impact, Happyhands has successfully developed and exported value-added products made from bamboo and rattan waste.

## Innovation

Happyhands has innovated in the recovery and utilisation of waste and in the design of new products.

**Waste utilisation:** In developing new products, Happyhands utilises both bamboo and rattan offcuts as well as the inner core of the bamboo that is left over when the outer skin and bark have been removed for bamboo weaving. In the past these by-products and waste were discarded and burnt after production processes. By-products and waste have now become the material source for handicraft products at Happyhands. Since mid-2019, Happyhands has innovated a number of small-sized products that make use of rattan and bamboo scraps. For example, the bamboo and rattan offcuts are used to make new products including cute rattan fish mirrors, rattan trays, and drinking straws. The inner core of the bamboo can be recovered and used to make toothpicks and incense sticks.

**Product Design:** Product design is a key determinant for market development and acceptance. Happyhands is implementing a new approach in product design and manufacturing. Several collections have been prepared and presented by Happyhands since 2019. The newly designed products can be easily assembled, are thermos-formed to reduce the use of glue or other fixtures, and can be sold flat-packed for efficient storage and transportation.

Many of the bamboo and rattan products of Happyhands can replace plastic products, including both single-use plastics (such as drinking straws or disposable cutlery) as well as durable consumer goods (baskets, furniture, bags and other items). Creating these products is particularly relevant in pushing back against plastic pollution, which poses a threat to wildlife, nature and the environment, in Vietnam and globally.

## Circular Economy impact

Happyhands' innovations result in multiple environmental benefits and contribute to resource circularity and resource efficiency which are key pillars for the circular economy transition.

First, in terms of resource circularity, previously discarded bamboo and rattan waste are converted into materials to make new value-added products for export, which is an example of resource circularity. Some 85% of byproducts and waste are now recovered and used in products by Happyhands which also contributes to reducing smoke, soot, and other air pollution from waste burning.

Second, resource efficiency is achieved by using a thermo-formation process that uses less glue for finishing and forming the woven products. With current production capacity, an estimated 30% savings on glue is being achieved.



## Business and market impact

Happyhands exports up to 70% of its products to the EU, the USA, Japan, South Korea and Thailand. The annual revenue ranges from USD 1 million to USD 2.5 million. With the new products made from bamboo and rattan waste, Happyhands has attracted considerable attention from market participants and suppliers for its circular economy initiative. From 2019 to 2023, Happyhands received increasing orders for its fashion items, accessories and home furniture products made from bamboo and rattan

scraps. These sales contribute to 8% of Happyhands' total annual revenue. The recent installation of a new production line will significantly increase production capacity and give international clients the assurance that Happyhands can also service large orders.

Home decors like bamboo straw, cute rattan fish mirrors, and rattan trays and picnic baskets are just few examples of the many products made out of rattan and bamboo scraps. The direct savings from this innovation are remarkable, they help to reduce water use by 10% in raw material cleaning, electricity costs by 5.5%, and 20% in bamboo and rattan materials.

## Stakeholders

HappyHands is committed to Fair Trade principles to maximise its positive impact on rural and agricultural communities. One of the most important social benefits resulting from this commitment is the creation of job opportunities and a secure income for rural workers, which then reflects on and strengthens local social networks and communities. Happyhands has nurtured the talented and skilful hands of artisans who turn bamboo and rattan material into sophisticated and elaborate fine arts work. Today Happyhands employs 100 workers and involves 1200 artisans to create its products.

As a result of upscaling the production processes, the company is collaborating with other bamboo and rattan material suppliers in Vietnam, so the benefits that Happyhands brings to society are spreading throughout the country.

## Implementation

With the new products made from bamboo and rattan waste, Happyhands has taken its sustainable development efforts and achievements to the next level. The company builds upon several other initiatives taken by CEO and Happyhands owner Ms. Phung Thi Ninh since the beginning, such as developing long-term contracts with the local communities for procuring bamboo and rattan materials, nurturing the talented and skilful hands of local artisans, and strengthening the position of female labour in the rural areas of Vietnam. Happyhands has built a strong foundation in handicrafts for further advancing the circular economy in the villages.

Since mid-2019, Happyhands has created approximately 150 products that can use rattan and bamboo scraps. In 2024, the company plans to introduce 10 more products using recycled bamboo and rattan scraps to European markets.

## Takeaways

- Greening bamboo and rattan production through waste utilisation and product design initiated by Happyhands turned out to be a viable option for preserving and promoting artisanal craft skills, improving profitability, providing jobs and securing income for more rural workers, and reducing environmental impact.
- Better product design and production, in harmony with the principles of sustainability, proved to be attractive to the local market and international buyers.
- Long term commitment of the company's top leaders with a clear strategy and goals to go green is a key for effective circular economy transition.





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## Disclaimer

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