

A Full Circle

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Known as the Kingdom of Bamboo, China has the greatest number of bamboo species and abundance of bamboo plants than any other country. A plant that is so versatile that it can be made into furniture, firewood, tiles, paper, chopsticks, crafts such as baskets and hats, shoes, medicine and even a popular edible dish (bamboo shoots), bamboo is an exceptional plant contributes to livelihoods and local economies. A plant closely associated with daily lives of people, one cannot imagine life without bamboo. This is particularly so in Chishui, located in southern China. Chishui is famous for its picturesque landscapes and has a bamboo forest, which is so big, that it looks like an ocean of bamboo (Fig. 1). It is at this scenic town where the Guizhou Chishui Zhuyun Bamboo Furniture Co. Ltd, a bamboo enterprise, has successfully functioned since August 2015. It now employs 60 people, helps local farmers and is run by a young lady, Zhou Rong with support from her husband and son.

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Born in Luzhou, Sichuan Province, Zhou was one of three children of parents who were employed in state-owned enterprises. Her older brother works in the construction industry, while her older sister is unwell and stays at home with her parents. She thought of starting a small business selling paint, but bamboo attracted her as it was a renewable resource, available locally with a far lower carbon footprint than other timber resources. Therefore, with the support and guidance of her husband, Zhou hired five rattan furniture technicians and started making furniture in October 2015. This became successful and gradually she employed 20 people as her business started to expand. Now, her 60 employees are directly involved in the production process of Zhou's bamboo enterprise (Fig. 2).

Often drawing inspiration from China's rich legacy of bamboo usage, visible in paintings, sculptures and woven products all over the country, Zhou and her husband innovated and created multiple products. Both of them continually tried to introduce better usage of raw resources and better production quality. In the first year of operation, the profit was only RMB 20,000 (\$3,014) (China Yuan Renminbi), but since then profits have grown annually by RMB 100,000 (\$15,071) to RMB 200,000 (\$30,143).

Initially it was an uphill struggle to help the community while also making a profit. A model of quality production had to be created from scratch. More importantly a value-chain had to be established – from the resources to the production and the marketing.



Fig. 1 Bamboo forest at Chishui



Fig. 2 Zhou Rong seated on bamboo furniture made at her enterprise

Zhou received support from both her family and the local community. Furthermore, the local and provincial government offered several training opportunities from which she benefitted. The community was aided by her enterprise as there are about 2000 bamboo farmers who sell their bamboo to Zhou. Her enterprise offers training to community members and realising the benefits they offer wholehearted support for the enterprise. By producing products of high quality and by learning about the role of the enterprise in “giving back” to the community, customers came in large numbers. Retailers from as far as Xianghe (2000 km away), Hebei province (1700 km away) and Hainan (1500 km away) come to buy her products.

Bamboo has seen greater innovation over the past few years. Apart from my interest in sustainability I was keen on exploring an area that created value-added opportunities for the community as a whole.

To make the enterprise a success Zhou ensures that every part of the bamboo is utilised

and wastes are kept to a minimum. The business model employed by the unit encompasses a range of activities which support each of the processes, while also being co-dependent on each other. Using a 200 hectare land area to grow bamboo, the company also has approximately two hectares set aside for by-products like shoots and fungus. Producing Moso bamboo, the average yield is about 15 tons of Moso bamboo poles per hectare. On the two hectares of land set aside for by-products two kinds of bamboo fungus are grown which fetch an attractive price in the market (Fig. 3). While the poles of Moso bamboo are used directly for the purpose of creating furniture, the branches and the pole tips are used



Fig. 3 Eggs from the hens reared at the farm

Fig. 4 Edible fungus, a by-product of the farm



for creating bamboo brooms and for bamboo charcoal. The bamboo left behind from making furniture is used for a number of purposes. While the powder is used for making charcoal, incense sticks and as a seedbed for fungus growth, the bamboo poles base on the other hand are used to power the boilers. This ensures that 100% of the bamboo is utilized and there is no wastage.

Being versatile is something Zhou prides herself in. This is illustrated by the integration of poultry farming on the land for growing Moso bamboos (Fig. 4). Approximately 30,000 regular and black boned chickens or “Silkies” are raised. Raising chickens on this land offers a number of benefits as the chickens consume the weeds as food, the droppings provide natural fertilizer which in turn supports a healthy crop and finally the chickens also lays eggs which are sold separately. From bamboo poles for furniture, to bamboo charcoal and brooms from pole tips and branches, along with several by-products such as fungus and eggs, this innovative approach by the furniture making enterprise ensures optimal utilization and growth of return on investment. Although 60 people are employed full time at the furniture making unit, the company also supports more than 10,000 farmers that form a part of this incredible value chain.

The output for the furniture making unit, which focuses only on creation of furniture and



Fig. 5 Chickens at Zhou's farm



Fig. 6 Art work using bamboo at Zhou's enterprise

other home décor items was pegged at 20 million RMB annually. While the yield from by-products in the bamboo forest (fungus, chickens and eggs) averaged around 10 million RMB (\$150,700). This also played a key role in strengthening the financial opportunities of the farmers involved in this value chain and improved the average earnings bringing it in the range of 3500–5000 RMB (\$452–754) per month per person. The furniture unit is also collaborating with the Sichuan Arts Academy, to create bamboo lamps and souvenirs for tourists (Fig. 5). Charting an innovative path through this unit, Mrs. Zhou Rong is hopeful that with the increased participation of the local populace the bamboo sector development in Chishui is set to get stronger. Zhou looks at her enterprise as one that receives raw materials, produces, sells and gives back to the community, in a circular fashion.

Zhou took a loan from Government and has expanded the business to include larger sections of the community. She is currently exploring the production of a range of products from bamboo and rattan. With the aim of exporting to Japan, South Korea, Singapore, Indonesia, Zhou hopes to employ at least 450–500 people who would be directly involved in the production process. Her family bought land, a house and a car from the profits of the enterprise. Zhou could educate her son in the university and he recently graduated and joined the family business. Zhou is now 45 years old and her advice to other women who want to become entrepreneurs is: “*While tenacity is important, perseverance is what leads to victory*”. Zhou’s enterprise creates a full circle of service benefitting many.