



Feature No.11: Yunnan Zhenghong Environmental Protection Co., Ltd

More than twenty-five years ago, Mr. Hao Zheng Yi recognized the untapped market potential of clean energy services in China and established the Yunnan Zhenghong Environmental Protection and Energy Conservation Co. Ltd to address the energy needs of rural households. Because of insufficient infrastructure, rural communities in the region traditionally depend on materials, such as wood and straw, for energy needs. Yet, these resources, while inexpensive and locally available, release pollutants, provide a low level of thermal efficiency, and cause serious health problems. Despite the nascent market for alternative energy products, Mr. Hao pioneered a more sustainable heating and cooking stove based on cleaner and more effective technology. The result is a profitable product that helps conserve natural resources and ensures healthier indoor air quality for rural families.



The oven's value is reflected in its strong sales: more than 50,000 high efficiency Zhenghong ranges have been sold in Yunnan Province, with approximately 8.7 million agricultural households. In 2004 the enterprise sold 13,150 ovens that produced a profit equaling roughly 21 percent of the product's sales price. Much of Zhenghong's success can be attributed to its Efficient Gasification Burning (ESB) system, which combines traditional fuel and natural gas technology. The system, designed by Mr. Hao, incorporates five patented technologies that add value to conventional

cooking stoves, allowing the end-user to improve efficiency and reduce capital costs—ideal for low-income consumers.

Another key to the company's early success was its ability to connect with its target clientele, farmers, who in China represent more than 50 percent of the population or 650 million people—a sizeable market. While in the design phase, Mr. Hao talked with this group who use traditional cooking methods to ensure quality and minimize costs and the company collaborated with the government to improve outreach and manufacturing capacity. As a result, the product has a strong following among rural farmers who appreciate the product's ability to run for five to eight years on the amount of wood and hay that traditional methods consume in one year.

By engaging underserved consumers and providing an affordable product that minimizes environmental impacts, the company will continue to deliver stable financial returns. Amid strong prospects for future growth in China and other emerging economies, Mr. Hao maintains that his venture will remain successful by demonstrating patience and perseverance, while ensuring a superior product with social, environmental and financial benefits. For more information on Zhenghong, visit www.new-ventures.org.

Written by Christine Lin for the World Resources Institute ©2006 - The Rising Ventures Series features innovative small and medium businesses (SMEs) in emerging markets that deliver social and/or environmental benefits. These businesses have been identified through the New Ventures (www.new-ventures.org) and Development through Enterprise (www.nextbillion.net) projects. To view other Features in the Series, visit <http://www.new-ventures.org/risingventures>.