

提供中美洲的安全爐灶

Supplying Central America with safe, fuel-efficient stoves

By Peter Schmidtke

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3520 地區 2003-2004 年度文化大使獎學生劉晏伶(Connie)譯



左：國際爐灶團隊共同創始人 Nancy Hughes。
StoveTeam International cofounder Nancy Hughes.

右：工廠業主 Gustavo Peña (左一)在薩爾瓦多為一群婦女示範如何使用 Ecocina 爐灶。照片由 Nancy Hughes 提供

Factory owner Gustavo Peña (far left) demonstrates use of the Ecocina stove to a group of women in El Salvador. Photos courtesy of Nancy Hughes



六年前，扶輪社友 Nancy Hughes 以義工身分在瓜地馬拉與美國醫療團隊共同發展出一個令人難忘的服務經驗。Six years ago, Rotarian Nancy Hughes had a career-defining experience as a volunteer with a U.S. medical team in Guatemala.

她遇到一位兩歲時，因掉落正烹飪的火堆裡而失去雙手功能的十八歲女性土著。Hughes 據悉，在開放的室內，烹調會導致吸入濃煙以及高發病率的燒燙傷，尤以兒童更為顯著。該團隊的醫生協助這位女子恢復手部功能，她深深的表示感謝，促使 Hughes 尋找一種防止這類傷害發生的方法。

She met an 18-year-old indigenous woman who had lost the use of her hands at age 2 after falling into a cooking fire. Hughes learned that the common practice of cooking over open, indoor fires led to a high incidence of burns and smoke inhalation, especially in children. The team's doctors restored function to the woman's hands, and her expressions of gratitude spurred Hughes to search for a way to prevent such injuries.

2004 年，奧勒岡州 Eugene Southtowne 扶輪社的社員 Hughes，寫下第一個五年專案獎助金 (Matching Grants) 的計劃，打算在三年的時間提供瓜地馬拉超過兩千三百個安全爐灶。

In 2004, Hughes, a member of the Rotary Club of Eugene Southtowne, Oregon, wrote the first of five Matching Grants that provided more than 2,300 safe stoves in Guatemala over a three-year period.

她發現了一個更便宜、更輕的爐灶，然而，一個五十磅重的可攜式爐灶稱為 Ecocina。外型類似一個大型的水泥花盆，有一部分是覆蓋著頂部，另一部份則是遮蔽著開放的那一側。設計者是 Larry Winiarski，以及 Eugene Southtowne 扶輪社的社友 Ken Goyer，Ecocina 是防止燒燙傷的絕緣體，比起開放式的爐火，可節省一半的木材成本。它還減少了產生至少百分之七十的濃煙與一氧化碳。

She discovered a less expensive, lighter prototype, however, in a 50-pound portable stove called the Ecocina. The stove resembles a large cement flowerpot and has a partially covered top and a sheltered opening on one side. Designed by Larry Winiarski and Eugene Southtowne Rotarian Ken Goyer, the Ecocina is insulated to prevent burns and requires up to 50 percent less wood than an open fire. It also reduces smoke and carbon monoxide output by at least 70 percent.

2008 年，Hughes 與其他五位 Eugene Southtowne 扶輪社的社友成立了國際爐灶團隊（StoveTeam International）。有了兩筆義工服務獎助金（Volunteer Service Grants）的援助，她與其他同社的社友兩次前往薩爾瓦多與瓜地馬拉去尋找 Ecocina 工廠的地點，以及教導社區與地方組織有關於爐灶的使用方法。In 2008, Hughes and five other Eugene Southtowne Rotarians founded [StoveTeam International](#). Aided by two Volunteer Service Grants, she and others from her club traveled twice to El Salvador and Guatemala to scout locations for Ecocina factories and educate communities and local organizations about the stoves.

同年，一批志工，包括 Hughes，在薩爾瓦多 Sonsonate 的附近為工廠建造工作台和儲存點，並僱用多達十五名工人在工廠工作。兩筆配合獎助金（Two Matching Grants）提供爐灶的原料並補貼四十元成本給買家。在第一個全年運作，工廠共生產了六千個 Ecocinas，其數量已可自給自足。

That same year, a group of volunteers, including Hughes, constructed workbenches and storage areas for a factory near Sonsonate, El Salvador, that employs up to 15 workers. Two Matching Grants supplied raw materials and helped subsidize the \$40 cost of the stove to buyers. In its first full year of operation, the factory produced 6,000 Ecocinas and is now self-sufficient.

「我們決定不生產爐灶；我們建設可以生產爐灶的工廠。」Hughes 說。「我真的很喜歡我們為人們提供就業機會的這個想法。」

“We decided we were not about producing stoves; we were about producing factories to produce stoves,” Hughes says. “And I really like the idea that we are providing people with employment.”

“我們都非常感激因為這個做法改變了我們的生命。”工廠老闆 Gustavo Peña 的迴響，他指出這間公司積極影響“工廠的所有員工”以及“所有收到 Ecocina 的家庭。”

“We are all very grateful because this has changed our lives,” echoes factory owner Gustavo Peña, pointing to the company’s positive impact on “all who do the factory work” and “all those families who receive an Ecocina.”

Peña 協調和平義工隊（Peace Corps volunteers）以及徵求外界的同業來為村莊做 Ecocina 示範，其中包括最近從墨西哥政府下訂的三千個爐灶。他還幫忙培訓瓜地馬拉、宏都拉斯與尼加拉瓜三個工廠的業主。這些受到配合獎助金（Matching Grant）資助的工廠開始在 2010 年出產 Ecocinas，第四個獨力經費運作的工廠將於四月在尼加拉瓜開始運作。薩爾瓦多的扶輪社與瓜地馬拉的 Guatemala Sur 社的貢獻是為這項工作做出所有的監督及配置，致力於協助建設工廠，並抵銷了 Ecocinas 的成本給買家。

Peña coordinates village Ecocina demonstrations with Peace Corps volunteers and solicits outside interest, including a recent order from the Mexican government for 3,000 stoves. He has also helped train owners for three factories in Guatemala, Honduras, and Nicaragua. These Matching Grant-supported factories started producing Ecocinas in early 2010, and a fourth, independently funded factory will begin operating in Nicaragua in April. Rotary clubs in El Salvador and the Guatemala Sur club in Guatemala have contributed to the effort by overseeing distribution, assisting in construction, and offsetting the cost of the Ecocinas to buyers.

自成立以來，國際爐灶團隊（StoveTeam International）已收到來自四十個扶輪社大約三十七萬美金的基金會獎助金以及私人捐款。

Since its founding, StoveTeam International has received approximately \$370,000 from 40 Rotary clubs, Foundation grants, and private donations.

“每週都有設立新工廠的需求郵件到我的信箱，”正在斐濟、墨西哥與巴拉圭策劃新工廠的 Hughes 說，“新工廠的業主都在學習爐灶的生產與經營方法，以及每天有越來越多的人因為收到安全爐灶而改善了他們的生活品質。”

“Demands for new factories arrive in my e-mail every week,” says Hughes, who is planning operations in Fiji, Mexico, and Paraguay. “New factory owners are learning stove production and business practices and more and more people are receiving fuel-efficient stoves every day.”