

In the summer of 2012, Roger Haines, a member of the San Diego Downtown Rotary Club, learned of the need for a more durable solar cooker to



replace the cardboard-and-aluminum-foil "CooKit" distributed in refugee camps. After some experimentation, Roger discovered that he could make a "CooKit" from reflective bubble insulation sold at Lowe's Home Improvement Centers. (see photo of side-by-side cardboard and reflective bubble CooKits)



Roger also learned that the cookpot in a CooKit is always enclosed in a high-temperature "oven" bag to insulate it from the surrounding air. These bags are expensive, awkward, and wear out after several days. So Roger came up with an alternative: a 6" x 36" rectangle of UV-stabilized polycarbonate film, rolled into a cylinder to become a cooking "sleeve" that insulates and elevates the cookpot, allowing the sun's reflected rays to be absorbed by the bottom of the black pot.

Roger showed his discoveries to Mark Evans Kirkpatrick of the San Diego Coastal Rotary Club, who suggested that Roger ask his Downtown Rotary Club to allocate \$3,000 to the Coastal Rotary Club, which would seek a District Matching Grant. The Downtown Rotary Club agreed, and the Matching Grant was obtained in early September, 2012 to send 300 solar cookers to Kenya.

Thereafter, Mark met with Rotary Foundation Trustee Steve Brown, who in turn contacted his friend in Nairobi, Bimal Kantaria, the District 9200 Governor-Elect. Bimal generously agreed to have his company, Elgon Kenya, Ltd., shepherd the cookers through Kenyan customs and transport them to Nairobi.



In November, 2012, Roger designed an improved "double-curve" cooker that was substituted in the grant for the "CooKit" design. On February 7, 2013, the Nairobi Mashariki Rotary Club agreed to be the host club for this project, and at Roger's suggestion, agreed to arrange for longtime solar cooking advocate, Faustine Odaba, to train the recipients.



In February, 2013, we purchased reflective bubble insulation from Innovative Insulation in Fort Worth, Texas, and polycarbonate rectangles for cooking sleeves from Curbell Plastics in Phoenix, AZ. In March, 2013, Rotarians from the San Diego Coastal and Downtown Rotary Clubs met at a Kobey's Swap Meet warehouse on two Saturdays, to cut out the cookers and attach velcro "dots" for easy assembly. As it turned out, we had only enough material for 291 cookers. The material is 1/4-inch thick, so we were able to lay all 291 cookers flat on a single 4-foot square pallet (6 feet tall), along with the plastic cooking sleeves.



The shipment was delayed by six weeks while we obtained a "Certificate of Compliance" (certifying that the cookers met Kenyan standards) which cost \$220.

The pallet was finally put into a container and shipped on May 12 .



Two months later, on July 8, 2013, the cookers arrived in Mombasa, Kenya. DGE Bimal Kantaria's application to exempt the cookers from customs duties was denied, so he generously paid about \$2,000 to get the pallet of cookers out of customs and transported to Nairobi, where they arrived sixteen days later, on July 24 (see photo).

In the meantime, the Nairobi Mashariki Rotary Club, under the leadership of Past President Catherine Mbondo, purchased 291 aluminum pots and painted them black on the outside to absorb the heat of the sun.



Then, after extensive planning, Rotary Club members distributed the San Diego Rotary Solar Cookers to recipients in a number of locations in Kenya in October, 2013. Each family that received a cooker was trained in how to use it by Faustine Odaba, through her NGO, NAREWAMA.



On October 9, 2013, cookers were distributed in Njiru to 107 recipients in the Kariobangi and Ruai environment groups. Training was conducted on the grounds of the Deputy County Commissioner of Njiru.



On 12th October, 2013, cookers were distributed to 30 beneficiaries in the Githunguri, Utawala, area within Nairobi. Photos of the October 9 and 12 distributions are on the Nairobi Mashariki Rotary Club's facebook page:

<https://m.facebook.com/media/set/?set=a.643555685664859.1073741835.131067246913708&type=1&efid=17>

On October 19, 2013, an additional 85 cookers were distributed in Kiboko, Makindu, in the Eastern region of Kenya.

A final distribution is planned for Ndela in Limuru, Kenya.

The Nairobi Mashariki Club will return to each site in January, 2014 to distribute WAPIs (Water Pasteurization Indicators) and to interview the recipients for its evaluation report on the project.