



April, 2019

Volume 20, Issue 1

**Solar Oven Partners UMC**

**Dakotas Conference Mission Newsletter for SOP UMC**

## SOP Needs Production Volunteers

Are you looking for a meaningful mission, but closer to home? Solar Oven Partners (SOP) may have just the answer.

Volunteers are needed in SOP's workshops in Montrose, SD, Raymond, SD, and Zeeland, ND, to fabricate pieces for its solar ovens.

There are three main components to most solar ovens, or you could say three main principles to effective solar cooking: concentration (reflection, or reflectance), absorption (ability to attract heat), and retention (means or capacity to retain heat).

In Zeeland, just east of Hwy 83 and on the



Pat Wood from McCabe UMC in Bismarck, ND, volunteers at the Zeeland reflector workshop. Here the metal is first unrolled from the spool and stenciled to be cut into the four pieces that make up a solar oven reflector.



At the Zeeland workshop, after the metal is stenciled and sliced, it moves on to the next station where volunteer Larry Wood of McCabe UMC, Bismarck, ND, punches out the corners.

North Dakota side of the border with South Dakota, we begin with a spool of metal reflective material, and our volunteers stencil, slice, punch, bend and rivet it into the reflectors that sit atop our solar ovens. We have the tools and will teach you how to do your part.

In Raymond, about 10 miles west of Clark, or 30 miles east of Redfield just off of Hwy 212, we

*(Cont. pg. 2)*



**DONATE an OVEN for \$150**

- Dakotas Advance #637...Checks to: Solar Ovens / PO Box 460 / Mitchell, SD 57301-0460
- UMCOR Advance #418812...Online Giving Link <https://www.umcor.org/UMCOR/Donate/Donation-Form?type=1002&project=418812>

\*Check out web site: [solarovenpartnersumc.org](http://solarovenpartnersumc.org)  
\*Find/Like us on Facebook: **Solar Oven Partners UMC**

# Volunteers (cont.)



Volunteers from Faulkton UMC prepare oven components for shipment. The exact number of every component needed to assemble five ovens will be placed in a box. Up to 230 boxes are then shipped from Raymond to our mission site partners where they are opened and assembled together with the people who will take the ovens home.

do some manufacturing and a lot of wrapping and boxing of the component parts to prepare them for shipping. Volunteers at the Raymond workshop also bend sheets of metal into bread pans to be included with each oven.

At Montrose, just off Interstate 90 about 30 miles west of Sioux Falls, we cut the foam insulation pieces that go in the ovens. “We start with the big sheets and end up with the packaged parts,”



The Huron Area Clergy Covenant Group dedicated part of their meeting day to making bread pans at the Raymond shop. That’s much more fun than sitting around a table for a meeting!

said Phil Lint who oversees volunteers at SOP’s workshop in Montrose.

Lint explains that volunteers are the critical component of the production process. “The whole process depends on volunteers,” he says. “If we don’t have volunteers to do this, it is not going to get done.”



Roger Kipp of Montrose United Methodist Church is a regular volunteer at the Montrose SOP Workshop. He is cutting pieces of the Styrofoam insulation used in the solar ovens.

Lint has been on 12 mission trips with Solar Oven Partners including locations in Haiti, the Dominican Republic and Sierra Leone. “I’m involved because I think it is something that makes a difference in this world,” Lint says. “This is very important to people who are in desperate need of a different source of fuel. They have to cook their beans and rice. You can’t eat them unless you cook them. Now they find out they can cook them with solar energy. It’s a great thing for them.”

SOP Director Marj Evans-de-Carpio concurs. In the Dominican Republic, where the concept of solar cooking has had more time to become known, the demand is accelerating. “Whereas initial seminars in a new location result in a dozen or so ovens being distributed, after the people begin to become familiar with solar cooking, our teams distribute 70 or more ovens per seminar,” says Marj. “And the day after we leave a community, neighboring communities begin to call Pastor Erasme, SOP’s in-country director, asking him to return. We have a duty to keep up with that demand.”

Most of the Montrose work sessions are done on a Saturday. “We start about 9 a.m. and we’re usually done by 1 p.m.,” Lint says.

“This is kingdom work and perfection is our goal. This is very important stuff we do. It’s not really hard work, but there’s a particular way to do

it. You have to get things done the right way. And it’s fun to be with other folks. It gives you a chance to visit.”

The fabricating is done in Montrose’s former grocery store. “It takes a lot of space, but we have a nice open area,” says Lint. “I really enjoy working at it, but we can always use more help. There is a constant need.”

There are also some volunteer tasks that can be done right at a local church, like bagging small parts, such as screws, rivets and washers, for the kits our teams use on site to assemble ovens.

## **Volunteer at SOP workshops:**

**Zeeland, ND, Workshop** (reflector production), contact Dave or Renae Silbernagel, 701-391-9468 or 701-425-1382, [silbernagel.dave@yahoo.com](mailto:silbernagel.dave@yahoo.com).

**Raymond, SD, Workshop** (bread pan production and prep of all components for shipment), contact Gene Bethke, 605-233-0168, [gbethke@itctel.com](mailto:gbethke@itctel.com).

**Montrose, SD, Workshop** (insulation production), contact Phil Lint, 605-491-2324.

## **Portable Projects to Your Church**

(counting out and bagging parts), contact SOP Director Marj Evans-de-Carpio, 605-692-3391, [sopdir@swiftel.net](mailto:sopdir@swiftel.net).

To volunteer at any of the workshops, just contact the shop manager and set up a day when you would like to bring a team of four to eight volunteers. Accommodations are available for groups needing to stay the night. Just ask! If you would be willing to be on a call list, let us know and we will contact you when we need individual volunteers.



Volunteers at Spearfish UMC count tie-down rings to place in baggies for the five-oven kits that volunteers in mission and oven recipients will use to assemble ovens at solar cooking seminar sites.

# Going Home with Solar Ovens

It was a map that stopped Christopher and Winifred Sylvah in their tracks during last year's Minnesota Annual Conference of the United Methodist Church. The couple, who immigrated to the United States from West Africa in the late 1980s, was walking by the Solar Oven Partners' (SOP) display in the convention center when a map of their native country, Sierra Leone, caught their attention.



*The sendoff: The week before departure, the Sylvah's were commissioned by their church, Camphor UMC in St. Paul, MN*

It was then that they saw photographs of their former country men and women cooking with solar ovens—photos taken during SOP's pilot trip to Sierra Leone in March 2017. It prompted a discussion about the solar oven ministry with SOP Director Marj Evans-de-Carpio. Six months later, Christopher and Winifred were flying to Sierra Leone as part of an SOP Volunteer-in-Mission team.

## Giving back to Sierra Leone

That trip, says Winifred, was a “dream come true.” The couple had been involved for several years in Operation Classroom (OC Ministries), a United Methodist ministry that collects supplies for classrooms in Sierra Leone, but they had been yearning for an opportunity to give back to their country in a more personal way. “I had always wanted to lay hands on the mission itself, going face to face with the people,” says Winifred.



*Winifred, center-left in the blue tee-shirt, directs serving of solar-cooked food*

women.”

Christopher, who grew up in Freetown, Sierra Leone's capital city, was interested in the ministry's focus on deforestation—especially following the 2017 mudslide in Freetown that killed more than 1,100 people. And, as someone who struggles with asthma, he was touched in a personal way by the fact that solar cooking eliminates the smoke inherent in cooking fires. Says Winifred, “Christopher and I talked

about it after our discussion with Marj and we knew we wanted to be a part of this group.”

## Bringing a depth of understanding

For Marj, the opportunity to have team members who understood the culture and could speak Krio, the common language of Sierra Leone, was also a dream come true.

“Winifred and Christopher brought a whole world of knowledge about Sierra Leone,” says Marj. “Winifred knew what foods we needed and knew what needed to be done to prepare them. She also recommended we let the women from the host churches go to the market and get what they needed—rather than the team buying items ahead of time. The women completely took over and did the cooking because she empowered them.”

Christopher, who helped participants assemble ovens during the seminars in Freetown, Makeni and Bo, said he felt their sense of pride. “As they took their ovens home, we saw the joy in their faces,” he explains. “It was as if they were saying, ‘I accomplished this. This is my own solar oven. I'm going to take care of it and share it.’ They really took ownership.”

The Sylvah's also realized they were making a difference for people they cared about. “We know that teaching them to use this device for alternative cooking will make a difference financially for them, letting them have more money in their pockets,” says Christopher.

How did the people respond to their presence as part of the mission team? “They were surprised to know that we had been gone from Sierra Leone for a long time,” says Christopher, “but we used this opportunity to let them know that we are still thinking about them, showing Christ's love with the joy of sharing and giving back.”



*Christopher Sylvah and a seminar participant in Makeni, Sierra Leone, work together to assemble a solar oven box.*



*Team members dressed up for church, left to right: Harris Bailey, Winifred Sylvah, Marj Evans-de-Carpio, Dave Stearns, Jiggy Trapp, Paul Hilgedick and Christopher Sylvah.*

# Cooks Perfect Solar Oven Recipes

By Deb Holland,  
SOP Volunteer-in-Mission

If those involved with solar ovens have learned anything, it's that it takes trial and error to perfect a recipe for the oven. Thankfully, Solar Oven Partners (SOP) has some committed volunteer cooks that are not deterred.

In Sierra Leone, the popularity of solar ovens continues to grow, and local partners have commissioned every oven recipient to develop recipes for Sierra Leonean food. That means figuring out how long it takes to cook, how much water to use in a solar oven, and to be promoters of solar cooking.



*A skilled seminar participant volunteered to cut the greens for palava sauce in Freetown, Sierra Leone, last November. We are still learning how much liquid to add and how long to cook different types of greens.*

“We began to experiment with cooking various greens, dried fish, ground nut soup and a banana bread that was new to us,” says SOP Director Marj Evans-de-Carpio. Helping to perfect the recipes was Minnesota resident Winifred Sylvah, and member of SOP’s 2018 mission team to her home country. Winifred introduced the U.S. team to a local staple, palava sauce. It is made using greens, onion, pepper, red palm oil, dried fish, steak or chicken and other seasonings and is commonly served over rice. Winifred says they realized the ingredients take a long time to cook, so they need to purchase them at the market a day ahead to prepare them for cooking.



*A Freetown, Sierra Leone, seminar participant holds a pot of ground nut soup, ready to place in the oven.*

SOP volunteers to the Dominican Republic are also developing recipes that will work for the locals. Shirley Vearrier of Redfield, SD, for example, developed a new bread recipe—honey oat—before her team left to serve in the Dominican Republic this January.



*Shirley Vearrier of Redfield, SD, developed a new bread recipe—honey oat—before volunteers left to serve in the Dominican Republic in January.*

Vearrier has been baking bread her entire adult life, much to the delight of her five children. “My kids were always glad for fresh bread. They wanted to cut it and eat it right

away. They devoured everything I made,” says Vearrier. So, when SOP Director Marj asked during the team’s trip orientation meeting, if anyone was interested in being in charge of developing a bread recipe, Vearrier stepped up. “I told her I could try making it,” Vearrier says.

Vearrier practiced making the bread at home and it went well. “It raised really good, and turned out to be a very good loaf,” she said. But her first attempt at making the bread in the Dominican Republic didn’t turn out well at all. “We made it two or three times,” says Vearrier. “I experimented and made it better. By the third time it was much better.”

What Vearrier realized was the yeast used in the Dominican Republic is much finer than what she used back home. “Our yeast has the bigger beads,” she explains. “I experimented by putting in extra yeast and that is what made it.”

Vearrier still would like to improve upon the bread. Because workshop days in the Dominican Republic are hectic, Vearrier often did not get the bread started in time for a complete rise before placing it in the solar oven for baking. “We really should have started it early in the morning, let it rise and rise again. It took two hours to bake the loaves we had. They all loved it, even though it didn’t rise,” she says.

Seeing the workshop participants delight at the sight of the foods cooked in the solar ovens was Vearrier’s favorite part of the mission trip. “They were amazed when it came out,” she says. “I loved it. I would like to go back again.”

Also, in the Dominican Republic, Gertrudis Garcia, one of the Dominican partners, experimented with local favorites, roast chicken and rice pudding. Until now, chicken has always been cut into small pieces and cooked with vegetable seasonings in the solar oven. The liquid released by the chicken and vegetables creates a sauce that is served over rice.

For the roast chicken, Garcia said they used larger pieces of chicken, but seasoned them the

same way. Spices used include lime juice (for washing the chicken), garlic, oregano, salt, chopped green peppers, celery and cilantro. After cooking the chicken in the pots for a time, the water the meat shed was drained and the chicken returned to the oven, uncovered.



Before and after: Larger pieces of raw chicken ready to go into the solar oven for the roasting experiment (above) and after cooking, draining and returning to the oven uncovered (below), a successful pot of roast chicken!

“It came out delicious in my opinion and others agreed,” she says. “I learned that we can cook in various ways with the solar oven.”

“My mom cooked delicious food and she liked to cook a lot and she

taught us,” Garcia says. “I learned watching my mom cook. And I like to cook. That’s why I do it.”



Gertrudis Garcia examines a spoon after stirring the rice into her experimental rice pudding.

Garcia’s philosophy concerning solar ovens is to keep experimenting, which she did with rice pudding. “When we test-cook something to find out if we can give it to people, we find out that it is possible! ‘Sí, se puede,’” Garcia says. “Everyone really liked it. And the women said they were going to make it.”

Garcia says Solar Oven Partners is a good program for the people of the Dominican Republic because it’s meeting their needs. “We have taught people to take care of the environment, to eat more healthy and most of all, to realize how great God is, by way of the sun he has given us,” she says. “We are thankful to be part of this great team. We give thanks to God because we are all part of a great family with the same purpose.”



Revs. Ray Baker and Tammy Toepke-Floyd test-taste the rice pudding. It’s a tough job, but, hey, somebody’s got to do it!

### Donors Give Abundantly

- Giving Tuesday.....\$7,378
- UMCOR Thanksgiving To New Year.....\$14,647
- Estimate, Dakotas Alternative Giving....\$21,393

**TOTAL.....\$43,418**

These gifts enable us to purchase and ship the materials that bring the blessings of solar ovens to people in need in the Dominican Republic, the Navajo Nation and Sierra Leone. Thank you.

## Why Solar Ovens: Just Two of the Reasons

Because the need for charcoal

leads to erosion, which in turn

leads to devastating landslides.

To build up the churches that are doing amazing work building up youth who are compassionate, ethical, competent leaders in their communities.



On the inside of the back page of this newsletter, you will find a copy of our Mother’s Day campaign flier. Share this with your UMW group, use it as a bulletin insert or give it to your kids as a hint that as your gift for Mother’s Day you would like to help other moms cook with the clean, free energy of the sun. It is designed to be printed on both sides of a sheet of paper, then sliced in half, creating two fliers/inserts per sheet. Electronic copies are available on the SOP website at [solarovenpartnersumc.org](http://solarovenpartnersumc.org) and on the Dakotas Conference website at [dakotasumc.org](http://dakotasumc.org), or call the office at 605-692-3391 to have copies mailed to you.

# Lifelong Skills Meet Unexpected Need

Retiree Paul Hilgedick (First UM Church in Huron, SD) knew how to assemble solar ovens and meet people when he went to Sierra Leone. He had no idea that experiences from his career as a shop teacher and carpenter would be used in an unexpected way.

In December when the team arrived in Freetown



English Krio is the most common language in Sierra Leone, but English is the language of business, meaning Paul could ask for what he needed in local shops. "Paul just went into new places and took it all in stride as if he were going to a builders' supply in Huron," says SOP Director Marj.

ready to build ovens, they loaded tools left by the previous team and stored in a vacant room. When they unloaded supplies at the first seminar in Freetown, they discovered a problem. The smallest brake used to bend sheet metal was missing from the tool collection.

"We realized then we needed a way to store tools together safely and



"We went to a building materials store with a list," says Paul. "The shopkeeper would bring out each thing one time at a time instead of bringing out everything on the list. There were lots of little bins like an old-time old hardware store."

to take them from town to town as we work," Director Marj Evans-de-Carpio said. "Luckily we had a skilled carpenter on the team." Our partners from the Sierra Leone Annual Conference knew a carpenter in Bo, a large city south and inland from Freetown, where our third seminar was to be held. They made arrangements for Paul to work in his shop, where he made the box to store and transport our



The team's driver, Abdul, took Paul and Marj to the carpentry shop in Bo and the storage problem soon had a practical solution. Here, Paul talks shop with the owner.

tools. The carpenters employed at the shop came to meet Paul while they were working. "The young men who were watching were interested in what kind of tools I had at home and what I did," reports Paul.

Every team meets unique challenges. Paul Hilgedick brought just the right experience. "Who knows what skill set we might need in 2020?" Marj says. "You might not realize when you volunteer that you bring exactly what we need."



When the next SOP team unpacks Paul's well-designed storage box next February or March in Sierra Leone, oven-building tools, reusable dishes for cooking seminars and other supplies will be ready in Paul's efficient box.

## From our hands to theirs—Mother's Day 2019

Our mothers—or other women in our lives—have encouraged us to put love into action. Honor these women, or their memories, by providing utensils for solar ovens built, equipped and delivered by Solar Oven Partners (SOP) volunteers. Your gifts ensure that every solar oven distributed in our seminars is equipped to cook, bake and pasteurize water or milk.

**I want to help equip solar ovens in honor  
or memory of those who have cooked for me.**

**\$30 equips one oven      \$150 equips a box of 5 ovens**

Enclosed is my check for \_\_\_\_\_.

Directions for Gifting/Memorials: Please send a card to the following person(s) to inform them of the gift given in their honor or of the memorial remembering a loved one.

Notify this person of the Gift in their Honor ...

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_

Notify this person of the Memorial Gift ...

Name: \_\_\_\_\_  
In memory of: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_

This Gift is Given By ...

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Email: \_\_\_\_\_

Return to: Solar Oven Partners UMC 910 4th Street, Ste G  
Brookings, SD 57006-2172

**Online undesignated donations:  
solarovenpartnersumc.org Click on "Make a Donation."**

## From our hands to theirs Mothers Day 2019



**Solar Oven Partners** (SOP) is a United Methodist Volunteers-in-Mission Project that brings solar ovens, utensils and training to cooks where poverty is high, fuel is costly and open fire cooking damages health and environment. Together with adults and teens in the Dominican Republic, Sierra Leone, and in the United States, we build, learn and cook with success and celebration.

**Honor the cooks in your life. Your gifts this year buy pots and utensils for solar ovens.**

Imagine the excitement when a cook sees the bread she's kneaded bake fragrantly in the sun thanks to the magic of a solar oven her family helped build. She can use money formerly spent on fuel to send a child to school. She can bake and sell cakes to her neighbors. She need not worry that her children will be burned by hot cooking oil.

What comes with a solar oven?

- three 4-quart covered pans-\$15.67
- bread pan with cloth-\$3.17
- measuring cups and spoons-\$1
- oven thermometer-\$2.25
- WAPI-water pasteurization indicator-\$2
- pot holders made by SOP volunteers
- book of recipes based on foods in local markets-\$4.34

**From your hands to theirs—learn more on the reverse of this flier.**

**SOLAR OVEN PARTNERS UMC**

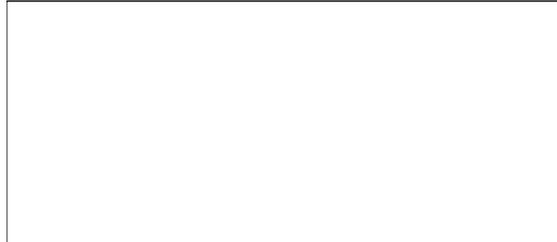
Solar Oven Partners UMC  
910 4th Street, Ste G  
Brookings, SD 57006-2172

~ CONTACT US ~

Marj Evans-de-Carpio, Director  
E-mail: [sopdir@swiftel.net](mailto:sopdir@swiftel.net)  
Phone/Fax: 605-692-3391  
Web: [solarovenpartnersumc.org](http://solarovenpartnersumc.org)

Connie Smith, Newsletter Editor  
Phone: 605-363-5097  
E-mail: [csmith@siouxvalley.net](mailto:csmith@siouxvalley.net)

Non-Profit  
Organization  
U.S. Postage PAID  
Permit No. 33  
Brookings, SD



**RETURN SERVICE REQUESTED**

## Reduce and Reuse: SOP Takes on Plastics—By Marj Evans-de-Carpio, SOP Director

Perhaps you have been learning about the environmental hazards of plastics. They break into pieces, eventually becoming tiny beads that flow into the ocean. Some fish and birds have been dissected and found to have a stomach completely filled with plastic, accumulated over time until they no longer had room for food.

Over the last year, Solar Oven Partners has implemented changes to reduce and reuse plastics. When we hold our solar cooking seminars, which culminate in a shared meal together, we used to use disposable plastic plates, cups and spoons. No longer! We now take reusable dishes to communities where we



*Pouches sewn by SOP volunteers hold four oven accessory items, and one large pouch will hold five smaller ones, replacing the six plastic bags previously used.*

teach solar cooking. We have also eliminated the plastic baggies that used to contain measuring cups and spoons. Our sewing volunteers have embarked on making cloth pouches instead. Each pouch holds a set of measuring cups and spoons, a thermometer, a WaPI (water pasteurization indicator) and a black cloth bread pan cover. In addition



*Volunteer in Mission Deb Anderson in the Dominican Republic with a stack of reusable cups and freshly washed plates.*

to reducing the amount of plastic that we use in packaging, these pouches also make distribution of the ovens and their accessories much easier for our volunteers in mission. Now they only have to make sure each oven has a pouch, rather than having to make sure it has each of the four items that go in the pouch.

When distributing 70 or more ovens, this will make things run much more smoothly. And the oven recipient keeps the pouch, either to store oven implements or to use as a little coin purse.

But it doesn't end there. Sewing volunteers are also making one large pouch for every five small pouches. These will be used to replace the plastic grocery bags that we formerly used to pack supplies in preparation for shipment. We will bring the large pouches back to be re-used for the next shipment. All of this is plastic that we will no longer leave behind in the communities where we distribute ovens—communities that often struggle with disposing of the plastic they already have. We still have work to do to reduce our plastic packaging, but we're definitely moving forward.