

# Rocket Stoves in Sub-Saharan Africa

Peter Scott, Aprovecho, October 18, 2004

Dear Stovers

Since Aug 2003, my partner, Jayme Vineyard, and I have been working with [GTZ ProBEC](#) (Program for Biomass Energy Conservation) and EAP (Energy Advisory Project) as well as World Food Program and innumerable small businesses to introduce the Rocket Stove principle to a number of countries in Sub-Saharan Africa (Uganda, Kenya, Lesotho, Mozambique, Malawi, and Zambia).

It has been a very productive year. When we arrived there were no rocket stoves in Africa but since our arrival we have applied the Rocket stove principle to at least 15 new cooking devices.

We have also made real progress on the material question. After many experiments with a number of different materials we have come closer to the ideal insulative material for the rocket stove combustion chamber. At this point it appears that our clay/saw/dust grog bricks in Malawi our best bet, followed by vermiculite binder/vermiculite bricks, and then cut pumice blocks. Please note we no longer recommend vermiculite / Portland cement as a rocket stove liner except if it can be lined with a durable, refractory ,abrasion resistant liner. More testing is needed before it can be recommended wholeheartedly.

Of the 15 new designs, four have been institutional rocket stoves for World Food Program . 110 stoves have been ordered in Malawi with an expected order of 750; 50 stoves have been ordered for Lesotho WFP with and expected order of 2500 stoves; and 10 stoves have been ordered for WFP Mozambique.

For a brief look at our latest institutional stoves that are reducing fuelwood consumption by an unbelievable 90-95% (that figure was, by the way, independently tested by two other organizations, otherwise I wouldn't even use it) and a retrofitted oil electric 250L stove please go to [Rocket Stoves for sub-Saharan Africa](#).

To see our latest designs, 100 , 110 and 200L portable and fixed Institutional stoves, 2 pot restaurant and household stoves, and mud and portable household stoves and our best sawdust clay bricks please go to the Rocket [60 L Factsheet](#) and [Malawi Report1](#)

For a look at our basic rocket stove construction guidelines please see the [Updated Rocket Stove design guide](#). This will give you a rough idea of how to design a Rocket stove on your own, although we still recommend that you work in concert with a qualified Rocket stove designer before implementing a stove project. Plans for these stoves are available on a limited basis . Contact me for more info

To see our 60 and 80L institutional stoves and sawdust clay bricks in Mozambique please go to [Moz report 0904](#)

To see our high mass insulated rocket roll oven in Mozambique. Please see [Portuguese roll baking oven](#)

To see our work in Lesotho - the 30 Loaf portable bread oven and the Nkokonono institutional and household stove - please see [Lesotho report 1](#) and [Lesotho 2](#). For updates on our work in Lesotho please contact Christof Kellner at [korlso@lesoff.co.za](mailto:korlso@lesoff.co.za)

For a brief look at our week in Zambia please see [Zambia Report](#)

To see our work in Uganda which includes bread ovens, household stoves and institutional stoves please see [Uganda Report](#) Please note that we have made many changes to our stove designs and that the Malawi stoves are the most up to date designs that we have in Africa.

I will be heading back to Africa in January to expand our Rocket stove projects and to bring them to Tanzania as well. Look forward to hearing your feedback on all of this. These are exciting times to be building stoves.

All Best

Peter Scott  
Aprovecho

Please note new email address [apropeter@hotmail.com](mailto:apropeter@hotmail.com)