

From the website:
<http://www.bioenergylists.org/en/kakutestove>

History of the **KAKUTE** plant oil stove
Jonathan Otto, Pamoja Inc., September 12, 2006



Kakute Ltd Stove

I can tell you about the KAKUTE (not Kakuta!) stove and lamp, as I have been part of the group working on it (on and off) since the start in 1997 in Tanzania.

Erwin Protzen did the original write-up 7 or 8 years ago, a fine piece of work, but the models have progressed a lot since then.

The problem with adapting a kerosene stove to plant oils is much more one of varying viscosities than purity of the oil. Jatropha oil will not willingly mount the 4 or 6 inches required of the liquid fuel in the usual Asian cookstove -- it's just too damn thick at room temperatures. The challenge seems to be finding the best (affordable) wicking material and other optimum design elements to supply enough oxygen for this hot, clean burning oil. Maybe that design already long perfected and a million units in use in India, but we have not been able to get definitive information on successful adaptations of liquid fuel stoves for use with plant oils. So in brief, we have a fine lamp design for household use, but the stove is not ready for prime time, yet.

Lack of funds, and maybe plain old ingenuity, prevented us from making a breakthrough plant oil stove design in the 90s. The team split up to pursue other interests, and those of us who were left turned our energy (bad pun) to stimulating more Jatropha planting and thus seed/oil production against the day when better minds would produce an affordable and otherwise appropriate stove design. We focused on another and more immediately marketable use of the oil -- its excellent saponific qualities -- to make a cold-process inexpensive soap with interesting medicinal properties that I will not go into as they do not fit with this listserve's focus.

6 years later, 50 tons of Jatropha seed have been grown, gathered and sold for soapmaking, planting and research, but the stove design issue languishes. Given the ubiquitousness of this tropical hedgerow species -- I've seen it grown from Cuba to Mali to Bangladesh -- a simple stove design for Jatropha and other plant oils would be a boon to humanity, and a blessing to the environment, as half of all the trees cut down in the world go to cook dinner.

That is the short story of the KAKUTE stove to date. Anyone want to write the next chapter?

Salaams,

Jonathan Otto, **Pamoja Inc.**
ProTree Jatropha.