

## Tsere lamba – solar for trees initiative

### MAIGOBO sub-district (Hawzen) – in Gheralta

#### The first 100% kerosene and indoor smoke free zone in rural Tigray / Ethiopia

Follow-up Report # 5 - September 2016

#### **A) Gheralta pictures:**

[http://www.travel-tour-guide.com/ethiopia\\_danakil\\_lalibela\\_pictures/8\\_tigray\\_gheralta\\_rock\\_churches\\_trip\\_photos.htm](http://www.travel-tour-guide.com/ethiopia_danakil_lalibela_pictures/8_tigray_gheralta_rock_churches_trip_photos.htm)

#### **B) Field activities, problems and practical solutions:**

As usual, this brief report follows my post dated 27 May, 2016 on Talk Energy Ethiopia (TEA – Ethiopia <https://www.facebook.com/groups/TEA.ethiopia/>), relative proposal of “Picking the right products/solutions for energy poverty” in pictures, and Report # 4 – Dec. 2015 . (Please view below post and illustrative pictures):-

It is indeed a pleasure to note that this year’s Ethiopian Meskel festivity (27 Sept.2016) marked exactly two years from the start of this small project. By now, in particular, the triangular combination where solar lighting, improved cookstoves and trees’ planting form the basis of our **solar for trees initiative**, as planned from the very outset in the MOU (memorandum of understanding) with the villagers in Maigobo.

At this stage, having almost realized what was intended in about two years , additional support shall be made to ensure impacts take deep root and last long.

Accordingly, I spent the entire month of July and August right in the project area to follow up the overall and actual situation.

Current major activities include:

- **Planting of trees** in and around every household (about 700) in Maigobo.

1. As planned before and attempted with no success last rainy season, July-September, this time we managed to procure and distribute a total of 18200 seedlings (26 for each household). Most came from seedling centers in Houwzen and Koraro. Distributed seedlings include (local names) : 1 orange, 2 avocado, 3 zeitun, 3 ghesho, 5 neem tree, 2 Dire-Dawa tree, 5 eucalyptus, 5 “Granville” tree. Total 26 seedlings for each household. “Beles” cactus shall be also planted around every house, to make sure no “Agame village” should be left without it, as per tradition.

Fortunately, we have now reached the optimal situation of the intended objective of the “solar for trees” initiative to practically benefit all villagers at household level.

As concerned villagers in Maigobo are quite happy to work hard for the sustainability of this initiative, having tested the multiple benefits of solar lanterns and charcoal saving cookstoves for about 2 years, sustained assistance and follow up will go on until, it is hoped, fruits will be seen forming part of their diversified diet, eventually selling the surplus, in due course.

2. On the other hand, the search for the much sought after apple-mango seedlings will go on wherever possible. We thus tried hard in Adiha - Tembien, Woukro and Mekelle, but failed in this season. Nevertheless, more suitable seedlings (like casimiroa etc...) will be provided for free in the coming years.

3. Again unfortunately, access to adequate level of water (clean or not) remain a major practical problem in the area where, in good parts, the daily ration is only 25 liters per family. No wonder then that searching for water takes a lot of women’s (young and old) efforts and time. Another serious problem are the numerous goats who constitute a real menace for whatever is or looks green.

4. On this occasion, I have also noted the surprising enthusiasm and involvement of most women and children, in particular, in the village who already understand what it all means for them – no longer kerosene fumes at night - and have practical interest in planting and taking care of their respective share of seedlings. Thus, just to encourage the kids, 1000 pens and 1000 exercise books were given to the local administration for fair distribution. More will go their way as long as they will make sure plants grow in and around their homes.

5. Now that we have established the scope of our work, and made some practical efforts to convince and encourage local villagers to do their utmost in this connection, attention and actions shall be directed to make sure the desired sustainability is attained in the coming years, with visible impacts that can be measured accordingly.

So far our assistance has been general and covering every household. No doubt some individuals will move and improve faster than others, but of course those who fail won’t have nobody else to blame. Boozing (sewa and beer) and wasting time and meager resources playing pool, billiard (kerembola) the whole day (exclusively by men) add additional misery to poor families.

- **Replacing damaged solar lanterns**

1. We collected and replaced some damaged solar lanterns as carried out on previous occasions. This time No. 30 D.light S2 and No. 3 S20 were replaced by the dealer in Hawzen, while No. 25 S2 lanterns were brought back to the distributor in Addis Ababa, as we have been promised a positive consideration recognizing the very harsh environment and extreme level of poverty where they are being used.

Now, it may be helpful to remember that D.light products are designed to withstand extreme conditions, like when they are tested having a car running over an S2 or dropping an S20 from the third floor.

Clearly, the rough handling of such products by unsophisticated villagers - net of intentional mischief - need to be understood and tolerated. The vast majority here are enjoying great satisfaction, in any case.

2. We must add here that, once again, getting replacements from the dealer in Hawzen (Mai Hafti) has been extremely long and frustrating, for unnecessary bureaucratic and unclear motives. In fact, increasingly, many frustrated and discouraged customers/villagers prefer not to waste their time trying. Gladly, the prompt intervention of the Head Administrator of Woreda Hawzen in addition to D.light's distributor in Addis solved the issue, which had no reason to be complicated in the first place.

Fact is that the prompt and easy replacement of products covered by legal guarantee is a serious problem to solve everywhere, making sure after sales service is equally serious and real. No point in blaming the poor villagers/customers for the poor after sales services.

3. However troublesome, as of today we have managed to replace No. 151 (98+9+19+25) S2 lanterns and No.3 S20. Thus our factual recorded failure rate is more than 10 % over just 2 years (of expected life span of 5 years). Clearly well above 'insignificant' theoretical failure rates being trumpeted around by many. Not to forget that we are dealing here with one (or the) best quality certified brand.

C) ***Lessons learned*** (or *reconfirmed on the ground*) :

***1. Stay the course even under negative pressures and difficulties.***

Local villagers teach us how to withstand difficulties, strive to survive and overcome every sort of hardship for long, often with little or inadequate outside assistance. When some sort of useful assistance comes their way they make things easy by cooperating to the full.

***2. Consistent assistance is critical, rather than one time sales or donations***

As a matter of fact, too many well intentioned projects failed here, making no difference on the long run. Thus, real and fair after-sales services or assistance are necessary as a remedy. Poor villagers should not be blamed for incompetence of suppliers, distributors or dishonest administrators. At this level of extreme poverty, falling back to square one, is a risk to be avoided all along.

### ***3. Solar for trees works fine in combination***

Once villagers establish what is best for them, and their surrounding world, they strive and work hard to change their lives with opportunities coming their way. The combination of such an opportunity to have both solar lighting, improved cookstoves and planting trees (fruits and other), has been welcome and worth “fighting for” (kinekaless ina) as one local elder just put it, knowing full well the water scarcity around there.

### ***4. Actual utilization of products and services matter most.***

Providing (free or not) or selling certain product is one thing. Actual consistent use is another (example: most useless biogas facilities here). As much as access to various products/services is necessary, their appropriate, consistent and actual utilization is what changes life conditions. Providing mere numbers (often cooked to deceive) is the easiest part. Maybe an independent and honest RCT (randomized controlled trial) will do. Real and sustained impacts over a fairly long span of time are what we value most over here.

Therefore, actual progress is quite encouraging, making it worth pushing ahead, simply because .....  
**it works!**

Salvatore Chester

(Addis Ababa, 28.09.2016)

**Tsere lamba** – solar energy (initiative)

- <https://www.facebook.com/groups/TEA.ethiopia/>
- <http://luminanet.org/forum/topics/africa?commentId=6566781%3AComment%3A28932#.Veb2hVKNrcs>
- <https://twitter.com/SalvoChester1>
- <https://www.linkedin.com/groups/5021394>

Attachments: - Pictures of current field activities in Maigobo

Post dated 27 May, 2016 in TEA – Ethiopia (<https://www.facebook.com/groups/TEA.ethiopia>)

## **Picking the right products/solutions for energy poverty.**

I believe it is high time to start discerning the most appropriate technologies for solving energy poverty in rural Ethiopia, out of so many phony products being proposed and offered by so many incompetent dealers supported also by "interested" officials.

Some even trying to fool and take advantage of the poorest, with tricky, expensive and poor quality solar products and so called "improved" cookstoves. Helped very much, of course, by those who were employed and paid their salaries for enforcing existing laws and regulations.

During my recent site visit in Maigobo/Tigray (April, 2016) I had the time to observe what - out of so many locally available products (good or bad) - could actually be the most appropriate, practical and competitive solutions for the impoverished local communities.

This resulted in my proposal of: " Most affordable & practical solution for clean energy access in rural Ethiopia (please view pictures attached)" , also to summarize years of hard work by many contributors.

Now, having identified the "right products", allow me to share some pictures of the Mirchaye cookstove (meaning My Choice in Amharic language) which has proven to save up to 100% (one bag of charcoal saved from two) on charcoal consumption/costs for local families I have been working with. This allows them save up to Birr 250 every other month for at least a decade or more. Not bad for a stove costing only Birr 130 ( = 6\$) .

Charcoal use here is a reality we can't help but consider, and until all the envisaged sugar mills start producing and distributing enough bio-fuel/biodiesel allowing the use of better and cleaner improved cookstoves, there is no better option than saving charcoal consumption, and relative deforestation.

Many challenges in its adoption still persist, though, due to the cultural and poverty trap they have been subjected to for so long.

It is also unfortunate that most local elites are not understanding and caring enough. They tend not to look back at the misery they themselves probably escaped from (including myself), but their very relatives are still enduring. Neglected.

That is why I was forced to accept the fact that transformation doesn't come easily here even when such products are provided for free. Imagine, then, what if they were supposed to pay for them, assuming they were lucky enough to find them in the local market in the first place.

It is still quite disturbing the fact that you can find plenty of inefficient stoves in the market, but not the right ones. Here again, ready and adequate supply is still problem #1 as pointed out time and again.

Therefore, more convincing education, promotion and help need to be made for a long period of time until adequate level of acceptance is reached, and quality products made easily available.

Please, let's try it together. Thank you.

Salvatore Chester

Tsere lamba – solar energy initiative

<https://www.facebook.com/groups/TEA.ethiopia/>

<https://twitter.com/SalvoChester1>

[https://energypedia.info/wiki/Cooking\\_with\\_Charcoal](https://energypedia.info/wiki/Cooking_with_Charcoal)

[https://energypedia.info/wiki/Pico\\_PV\\_Market\\_Challenges\\_in\\_Ethiopia](https://energypedia.info/wiki/Pico_PV_Market_Challenges_in_Ethiopia)

Most affordable & practical solution for clean energy access in rural Ethiopia

1. Mirchaye (my choice) charcoal saving cook stove (Birr 130 = \$ 6)



2. Tikikil (right) firewood saving cook stove (Birr 150 = \$ 7)



3. Mirt (best) injera/hambasha baking cook stove (Birr 150 = \$ 7)



4. Kerosene is completely displaced with #2 basic solar lanterns (light + mobile charging) for 600 = \$ 30



Conclusion : - Mirchaye Tikikil. Mirt nau 2 solar ምርጫዎ ትክክል ፣ ምርጫ ነው 2 ለጠር ! ( meaning : my choice of cookstoves is right, 2 solar lamps are the best).

NB. This very cost effective package (1 to 4) costs about \$ 50 = Birr 1000 per family. Rural life and access to clean energy can be greatly improved. It works perfectly and scaling it up is simple and practical. It thus takes serious affirmative financial actions to help them escape out the poverty trap, faster. They amply deserve it.

Salvatore Chester : <https://www.facebook.com/groups/TEA.ethiopia/>; <https://twitter.com/SalvoChester1>

Attachments: - Pictures of field activities in Maigobo



**1.Approaching Megab.JPG**



**2.Tewlehe.JPG**



**3.The way to Agoza.JPG**



**4.Up in Agoza.JPG**



5.Hidmo in Agoza.JPG



6. A gift by a lovely boy.JPG



**7.Offloading seedlings in Maigobo.JPG**



**8.Seedlings ready for distribution.JPG**



**9.Seedlings ready for distribution.JPG**



**10.Briefing villagers before distribution.JPG**



11. Distribution started.JPG



12. Distributing seedlings.JPG



13.Distributing seedlings.JPG



14. Loading donkeys with seedlings.JPG



15.A lady with her seedlings.JPG



16. Distributing seedlings.JPG



17.Girls with their seedlings.JPG



18. Goats are a real menace to seedlings.JPG



19.Charcoal saving stove used for coffee business.JPG



20.Proud farmer ready to work wearing his solar lantern.JPG



21.Family visiting Gheralta.JPG



22.On the way to Maigobo..JPG



23.Helping offloading gifts for kids in Maigobo.JPG



24.Ashenda festivity in Maigobo.JPG



25.Ashenda festivity in Hawzen.JPG



26.Ready for Ashenda in Mekelle.JPG