

Monitoring already installed Bio Sand Filters

I went to the villages where the people already use a Bio Sand Filter and monitored all the filters. At first I needed to talk with the users and ask them about:

- how many times a day they used the Bio Sand Filter
- do they use chlorinated water for the Bio Sand Filter
- do they have different storage containers to store the water and clean those regular
- do these storage containers have a tap or a narrow opening to get the clean water out

Then we visit the Bio Sand Filter and check about:

- are there any leaks on the concrete filter body
- is there a lid which covers the entire opening of the filter
- is there a diffuser plate without cracks or damage
- is the filter in a suitable location away from weather influences or animals
- is the surface of the sand flat
- what is the depth of the water level above the sand
- what is the flow rate
- what is the turbidity of the water coming out of the filter spout
- is there a valve or a tube attached to the outlet of the filter
- is the outlet of the filter clean

If we checked all these points, we talked about the Bio Sand Filter and explained why it is of great importance to check the Bio Sand Filter regularly. It is necessary to have clean storage tanks, because if they use dirty tanks, the clean outcoming water from the Bio Sand Filter will be contaminated again and they drink unhealthy water. All this monitoring I had to do in different locations where we already have installed Bio Sand Filters.

- In Doi Saket the people use this filter already up to 6 month. They use the filter every day and saving a lot of money every month because they do not need to buy drinking water anylonger. They are happy with the Bio Sand Filter because it is very easy to run and to maintain the filter.



- In Fang Ampere Mae Ai we installed 6 Biosand Filters so far. In a Lahu village the people have now very less problems about diarrhea. In one of the households they do not run the filter every day, so they had more problems of diarrhea. Our goal for this household, explain them why the filter have to run every day. The filter needs to run every day because it is a Biosand Filter and in the top of the sand surface we have a biological activity. If the bio layer dry out ore don't get oxygen every day about of no fresh water is poured into the filter, the bio layer will die and this biological activity getting less and less and cannot clean the water anymore. This household was very open for our explanation and they also realized this failure because the other users of a Biosand Filter don't have this problem of diarrhea anymore.
- In Mae Hae, Doi Inthanon area in a Karreen village we have a children project where in this time about fifty children live. For all this children one Filter are to less so we installed a second one and they use the filter every day, have less problems with diarrhea and can save money for medicines about drink safe water coming from the Biosand Filter.



- In Khon Kean almost all of the people drink rain water what is very clean and save, but if they store the rain water a long time also bacteria's will grow in the water and make the people sick. For this case installed a Biosand Filter and explained them why it is better to have water coming out of a filter. This people had some health problems of diarrhea and agreed with us to test and use the Biosand Filter. Now, when we visit them again, the health problems of diarrhea almost zero and they said to us, this water has a better taste and they are healthier.
- In Lamphun we installed so far two Biosand Filter and they are working well. We couldn't see any cracks on the Biosand Filter body, the location are safety and this two filters running every day.