More rainwater harvesting

As mentioned in the last newsletter (Jan/Fe) we have received a generous donation through a Dutch foundation to enlarge our rain water harvesting capacity. Digging ponds in Annapurna makes a lot of sense since we are situated on heavy clay soil which is quite different from the situation in Auroville. Water does not penetrate much and we only lose by evaporation. So water can be stored without having to waterproof the pond which would make it very costly.

Right now we are able to catch and store approx. 25000 m³ (25 million liter) of rain water. These ponds have been dug over a long period of time. We started to dig by hand in the beginning of the nineties. Every summer when we would have time and some money we would slowly dig the hole bigger with a digging team from nearby Ottai village. They were people which were specialist diggers with reed baskets, crowbars and mampfies. These guys would be out there in the blazing sun and dig with amazing speed. Nowadays this breed of people is kind of extinct and machines have taken over.

In the end of the nineties the excavators started to become more common and we started to use them from 2000 onwards. We would dig in a few days an amount which had taken us a decade before!

Right now the plan is to double our current rain water storage capacity and be able to store much more water to give Annapurna a future. After last year monsoon failure and consequent bore well problems we were reminded that we have to give much more attention to rain water harvest work to be able to continue our farming activities.

We are harvesting from two watersheds right now and we want to add storage capacity to both areas since there is much more potential than what we tap right now.

When we think of digging for water harvesting people generally think of digging a hole and do not realize that the soil which comes from the hole needs to be discarded in a proper way.

The scale we talk of is going to give us many thousands of tipper lorries of excavated soil.

In the past we used the earth to create a network of many kilometers of elevated pathways throughout the farm. These pathways serve at the same time to direct and channel water into the ponds.

Right now we are planning to build a hill of approx. 7-8 metres high and create another smaller pond on top of the hill. We want to pump water from the main pond into the small uphill irrigation pond which we can then use at our convenience throughout the day and irrigate by gravity. Electricity comes at very irregular times and often at night. We could even envision to pump the water up by solar pumps into the higher irrigation tank if we would find sponsors and this would make the irrigation system very green and sustainable.

But as usual, we go one step at a time. Right now we have cleared the area where the work will take place and installed the pipelines for water in- and outlet so we can build the hill around those.

We had to cut quite some trees, which in a way was a pity but the good thing is that the trees will be used for the new cow house roof which is our second project this year.
March harvest news
Rice harvest is ongoing. While writing this the combine harvester is busy in the field. Since we had a shower of rain last week a lot of the fields are pretty soggy and we will only be able to harvest part of the fields with the big machine. The rest will be harvested manually.
We are planting rice over a period of 2-3 months and so harvest also stretches over a long period. For now the harvest had both good and poor results. Overall we would have liked it a bit better, but since we planted 16 acres all together we will have a good amount of rice for the coming year.

Then we harvested a sesame crop. This crop was affected by deer at some point during its maturing stage. After we sprinkled some human hair around the field we did not notice any damage anymore. I hope that the hair was the reason and we have a simple way to protect our fields from deer. We will try again next year and see if it really works. We are collecting hair, so if you have some to spare, let us know, or drop it in Foodlink and we will pick it up.

Dairy expansion
As also mentioned in the last newsletter we want to build one additional cow house. Annapurna dairy is one of the few certified organic dairies in South India. The herd consists of approx. 25 crossbred cattle (predominantly indigenous breeds). Half of the herd is adult animals, the rest being calves, heifers (young cows) and a bull. Since the dairy is under organic standards all cows are bred on the farm and only bulls are replaced from time to time. We are keen on breeding and selecting cattle to improve the herd on an ongoing basis.
To breed/select cattle is time consuming. From the date of making a particular cross between a certain mother cow and bull it takes 4-5 years to assess the result of the cross combination. Which means in practice we need quite some extra holding space to be able to keep enough young animals to improve and renew the herd. For this we need better/increased facilities. Since we have decided to increase the size of the herd by about 25%, the need for the extra space is now imminent. Annapurna has invested in the last few years in a cool room and dairy processing facility and most of the milk is processed into dairy products.

The farm supplies Auroville throughout the year with:
- milk
- two kinds of yoghurt (401 is a mild yoghurt)
- rice pudding
- several kinds of paneer
- Annafromage - a farm cheese
- Annagio - a grated parmesan style cheese
- feta cheese
In the future we foresee that we will broaden the product base and develop more healthy, low fat dairy products.

Collaboration with SLI
Annapurna dairy is receiving regular groups of Indian dairy farmers through the SLI (Sustainable Livelihood Institute) program which is run in Auroville. In those visits farmers are exposed to a more structured dairy management system which includes breeding techniques, feeding methods, and improved general management practices. They also get some exposure to milk processing. Annapurna’s dairy practices are very much based on our local reality/possibilities and are able to be adapted by South Indian farmers.

Sharing these practices is effective in giving people some options to improve their farming methods and livelihoods. In their recent newsletter SLI participants gave high ratings to the dairy program of which Annapurna is a part.