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NEW ECO PULPER FOR ECO FRIENDLY COFFEE PULPING

1. Name of the project/ activity

Installation of Eco friendly coffee pulper

2. Context

One of the activities of the organization is the processing of organic coffee. The source of coffee is cultivated by Wayanad farmers organically certified and environmentally involved.

Vanamoolika started first Coffee pulping in January 2014. At the beginning, the organization was processing about 4000 kg of coffee. Two years later, in 2017, we are processing 10,000 kg. We faced a big issue for disposal of waste and the usage of water. We resolved this to a large extent last year, by the help of Amber Foundation Germany.

Even we solved the waste and waste water management, the processing time, man power and the electricity usage, every day, was huge. Until this year we used separate disc pulper and vertical washer. The whole process starting from fruit washing, pulping, and final washing took separate labour and used 10 liter water/kg and 12 hours 3-4 labour, for processing 1,000 kg of coffee cherries/day. Also we faced damage of beans while processing which was about 10%

We faced crisis in availability of labour in time for the processing work, electricity interruption. and the water scarcity this year, our studies and research leads to think for better option, that is go for an Eco pulper.

First of all we visited the Coffee board Deputy director who is the Head of our State in charge Dr, Karuthamany, who encouraged us to use an Eco pulper it saves time and money, He suggested to visit some working models in the nearest place. First we visited the Coffee Research Institute Chickmaglore in Karnataka State. The Scientist In Charge Dr. Nagaraju explained everything about Eco pulper and taken to the CCRI pulping center. Again we visited the nearest estate, where a huge unit of Eco pulper on working. The same day we visited the Factory Supreme engineers and Sagar engineers where the Eco pulper is manufacturing. Few days after again I visited another unit which is owned by a farmer group at Somwarpet, and discussed about the economics and other features of the Eco pulper. Our final decision was to purchase a new Eco Pulper.

The salient features of an Eco pulper.

- 1) Time: Time taken for pulping and washing 1000 kg fruit need only 30 minutes. (It took 12 hours in the old machine)
- 2) Man power: need only 30 minutes instead of 3-4 man power for 12 hours in the previous machine.
- 3) Water usage. Need only 1 litre of water for 1 kg fruit. The same water is recycling and only 1000 liter water is used daily. The 60-70% of water is again trapped and filtered using the filter system, constructed last year.
- 4) Electricity usage: instead of using 10 hp power for 12 hours (= 89,4 kWh) , Eco pulper use 24 hp for 30 minutes (= 8,9 kWh). Hence we save 90% electricity/fuel.
- 5). Quality: There was 10-12% breakage of beans while pulping and washing. In the new pulper, there are only 1-2% of breakage. So here are also we save 10% of beans.

Economics.

	Old machine /1000kg	New machine/1000kg
Time	12 hours	30-40 minutes
Man power	3-4 no	1 no for 30-40 minutes
water	10000 liters	1000 liters
Electricity	120 hp	12hp
Quality	12% breakage	2% breakage

3. Expectations

The three principle expectations of this project are:

- Improve quality
- Increase sustainability of the process and save money
- More profit /price to the producer, better quality to the customer

4. Project implementation schedule

The physical work started in the month of February 7th 2017 and completed by March 18th and run the trial. Even though the work was completed. However the machine is installed the, we should wait for the next harvesting because the 2017 harvest is already completed.

Expenditure.

Eco pulper.	1299506
Additional Fittings	501969
Civil work	125000
Total	1926475


Receipts.

Amber Foundation-Germany	139000
Loan from IOFPCL	1000000
Grand expected from Coffee Board India	5,00,000
Vanamoolika contribution	287475
Total	1926475

We express our sincere thanks to:.....

Elephant Beans -Freiburg
Quijote Kaffee -Hamburg
Amber Foundation-Germany
Coffee Board of India,
Supreem Engineers-Chikmaglore
and IOFPCL Aluva

.....**For supporting and helping our farmers as well as our institution.**


Chackochan
President

Pulpally.
12/04/2017

