

Boomadevi Farm

Boomadevi farm was established in the year 2015 by Manikandan with an aspiration of creating a food forest.

At the moment Boomadevi is a mixed organic farm with few vegetable plots, fruit trees, a small herd of cows and a flock of 35 country chickens. The dairy tries to adhere to the basic dairy group standards.

The farm's production is largely hindered by lack of fencing and lack of water source in the farm; also the land is prone to flooding during heavy monsoon.

The farm is mainly run by Mani and his mother and occasionally with the help of seasonal workers or other family members when required.

Land

Total Lands under management - 9 acres

Lands under cultivation - 2.5 acres

Fallow - 6.5 acres

The total land allocated to Boomadevi is **9 acres, in 3 fragmented pieces** located separately. Out of this, only one piece of **2.5 acres** is **currently being used**.

At least **0.5 acres** of this land **floods** during the monsoon. On this part, casuarinas have been planted for the wood. The cows are grazed on long ropes on the fallow fields between crop rotations.

There is also a chicken coop and cowshed to house the birds and dairy animals.

There are various tropical fruit trees planted in the the farm ageing from recently planted to 5 years.

During heavy rains, the whole farm gets flooded,

The **6.5 acres** that is fallow has **no source of irrigation**.

There are no housing structures on the land and the farmer lives outside the farm.

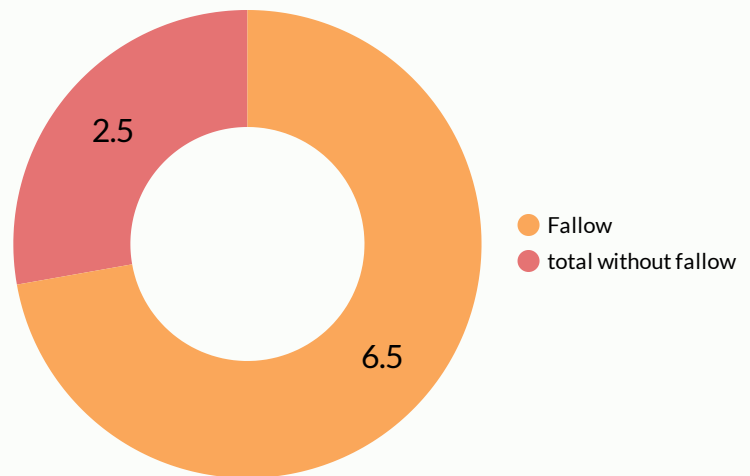


Chart 1: Utilised area vs Fallow area (acres)

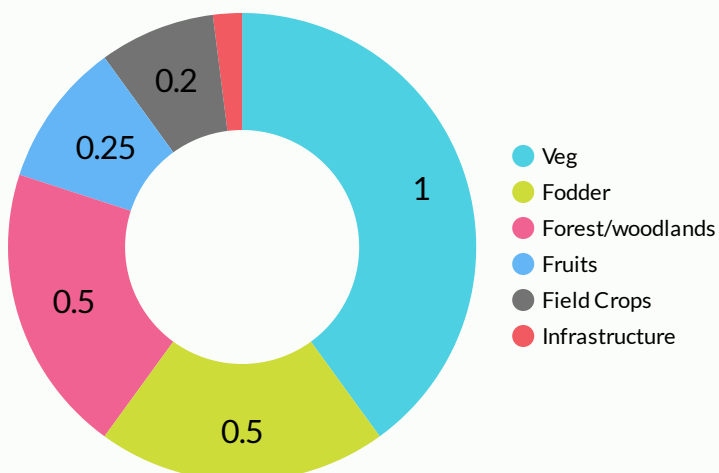


Chart 2: Breakup of utilised area (acres)

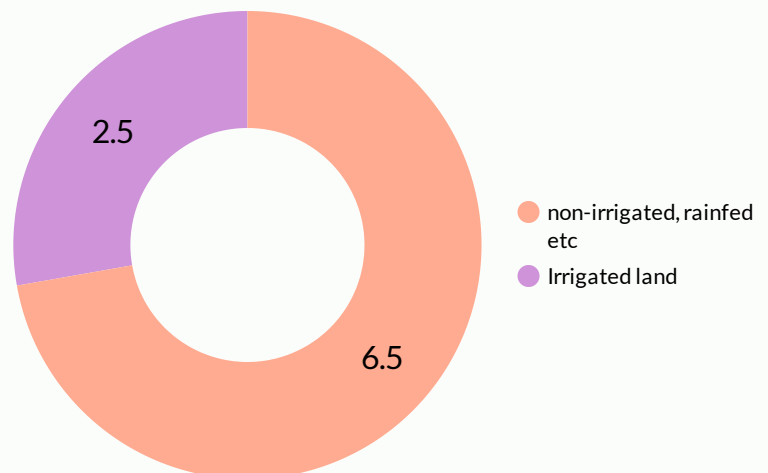


Chart 3: Proportion of irrigated Land (acres)

Production (Foodlink Sales)

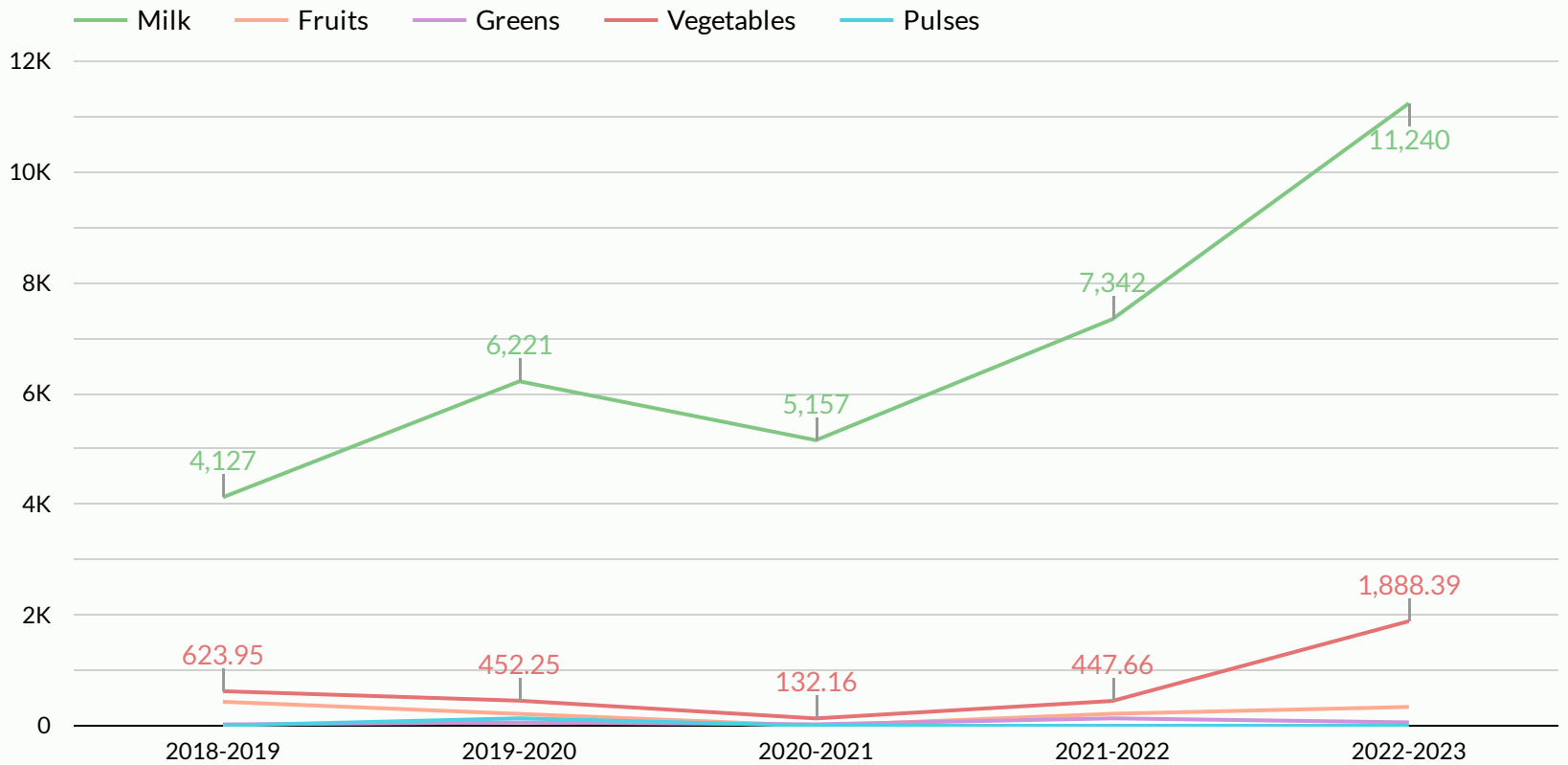


Chart 4: Sales in Kgs per category of food type across 5 years

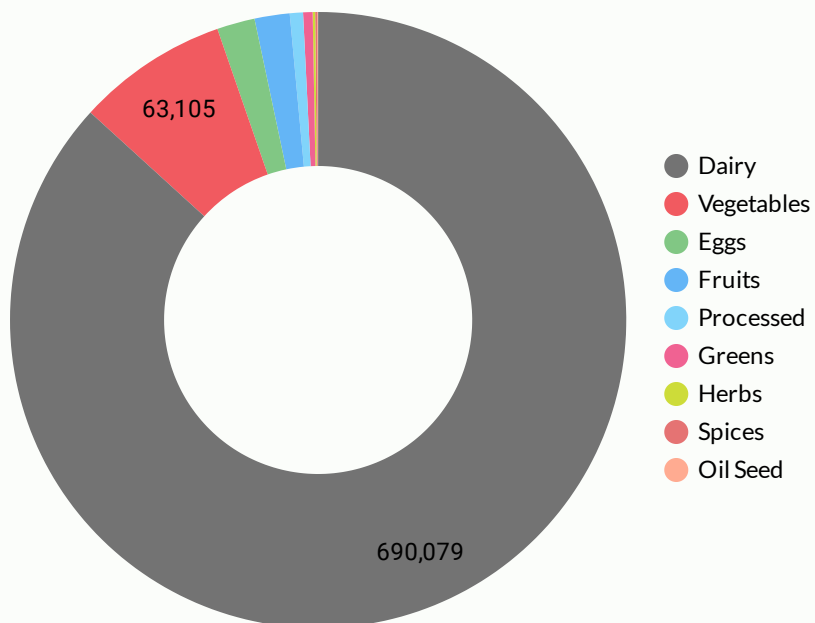


Chart 5: Breakup of Sales for FY 22-23

The farm mainly focuses on milk production and vegetable cultivation is only seasonal. Both the milk and vegetable production are gradually increasing over the last years. The fruit trees are currently very young to produce any fruit. Some Banana and Papaya plants have started giving some yields.

Top Produced Items (FY22-23)

Item Name	Category	Quantity (Kgs)...
Milk	Dairy	11,240
Egg Small Org	Eggs	685
Lukki	Vegetables	681.22
Brinjal	Vegetables	400.06
Lady Finger	Vegetables	286.23
Water Melon	Fruits	222.28
Eggs Organic	Eggs	189
Pumpkin Big	Vegetables	128.07
Banana Yellow	Fruits	114.28
Radish White	Vegetables	109.73
Corn Maize	Vegetables	83.06
Cucumber B	Vegetables	46.16
Sp Kirai (Thandu)	Greens	45.05
Ridge Gourd	Vegetables	35.44
Ash Gourd	Vegetables	23.2
Tomato Cherry	Vegetables	22.22
Oil Peanut Bulk Ltr	Processed	15.75
Tomato	Vegetables	12.23
Tomato Country	Vegetables	11.92
Corn Sweet	Vegetables	9.75

The farm grows vegetables for 2 seasons every year on about an acre of the land. These fields are fertilised mainly by dairy effluents and sometimes Effective Microbes (EM) solution. The farm also buys cowdung from outside when required.

Vegetable fields are prepared manually after ploughing with a rotavator and power tiller. The vegetables are seasonally rotated throughout the area.

Vegetables and fruit trees are irrigated using drip irrigation systems, manual or channel irrigation.

Dairy and Poultry

The dairy consists of **9 cows, 2 heifers** and **1 female calf**. Apart from the dairy, Boomadevi also has a flock of **35 country chickens** for eggs. The dung produced by the cows fulfils about **60% of the fertility** needs of the soil. **The dairy is also the main product of the farm and generates the maximum income.** The eggs from the poultry are sold directly to individuals and sometimes the chickens are also sold for meat. The farmer also expressed the intention to gradually move towards more native animals in the dairy.

The cows are fed with locally milled grain (concentrate) mix of corn, chana, ragi, cumbu, ulundu dust, cotton seed cake, peanut cake (own), sesame / coconut cake, rice and wheat bran. There is **half an acre of cultivated fodder** (mainly grass) space under irrigation for the cows. Apart from this, the cows are fed with paddy straw (bought from other farms), fodder from trees and weeds/wild grasses. For grazing, the cows are mostly tied in the shade on long ropes in fallow fields, but are sent out of the farm during monsoon when the fields flood.

All the cows on the farm are of cross-breeds with a small part of them bred on the farm. As the poultry are all indigenous breeds,, they are all born and raised on the farm.

The male calves are sold out and female calves with good health and genes are selected to stay on the farm. Of the cows which are too old and stop giving milk, the ones born on the farm continue to be taken care of in the farm, while the ones that were purchased are sold away. The calves suckle on the mother cow before and after milking for their early milk intake.

Artificial Insemination is used for impregnating the cows. The primary methods of medication are home remedies, homoeopathy and only in severe cases antibiotics are used.

Finances

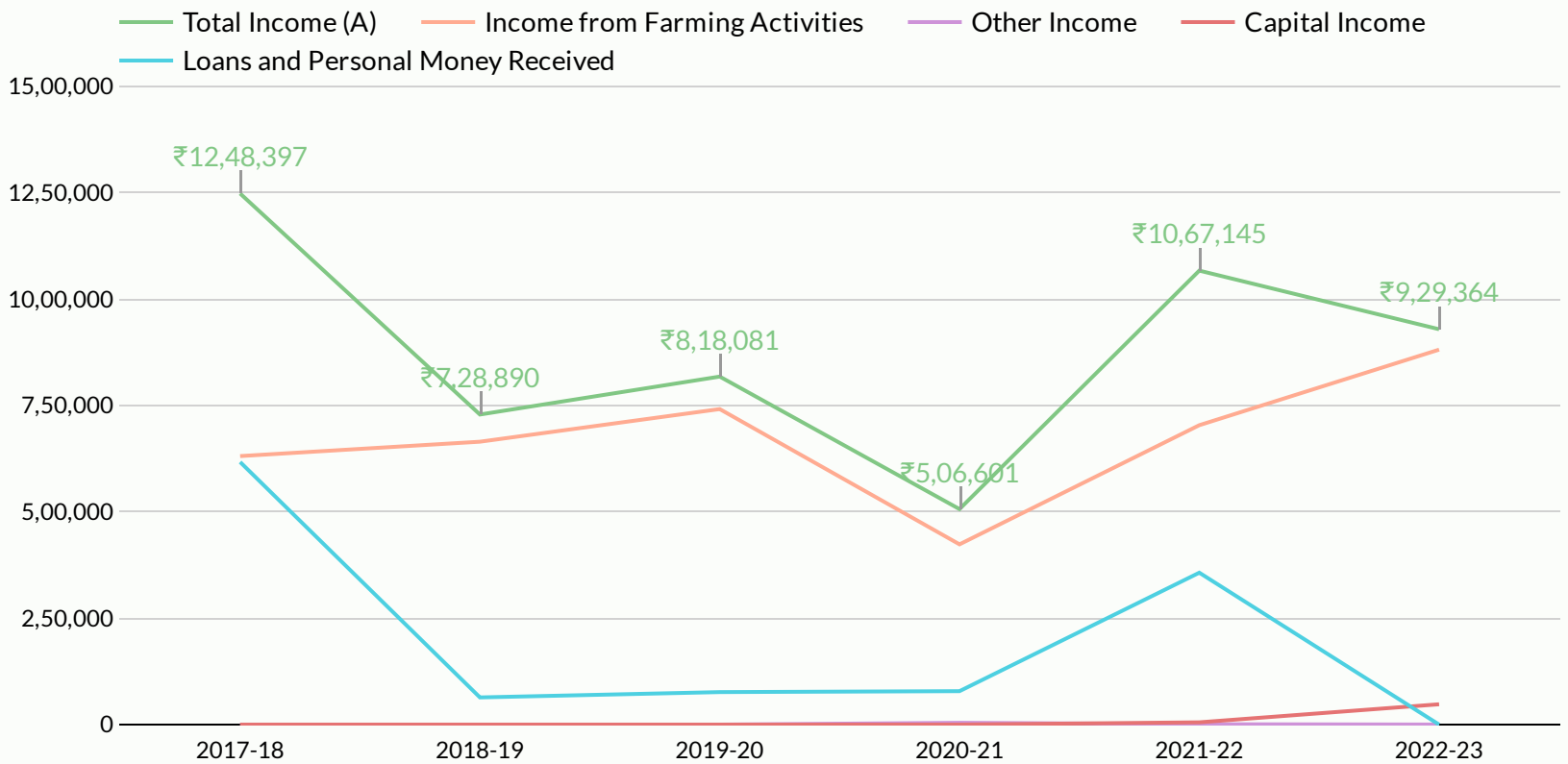


Chart 6: Break-up for farm income during 2017-23.

The **2 large peaks** in total income in FY17-18 and FY21-22 is primarily due to the **farmer's personal funds** lent to the farm. The farm income from food production dropped significantly in 2022-21, most likely due to COVID, after which the income is steadily increasing as the farm is increasing its cow herd and focussing more on milk production.

While the income is increasing over the last years, we see that the farm's expenditures remain consistently above the income it generates (except for FY19-20).

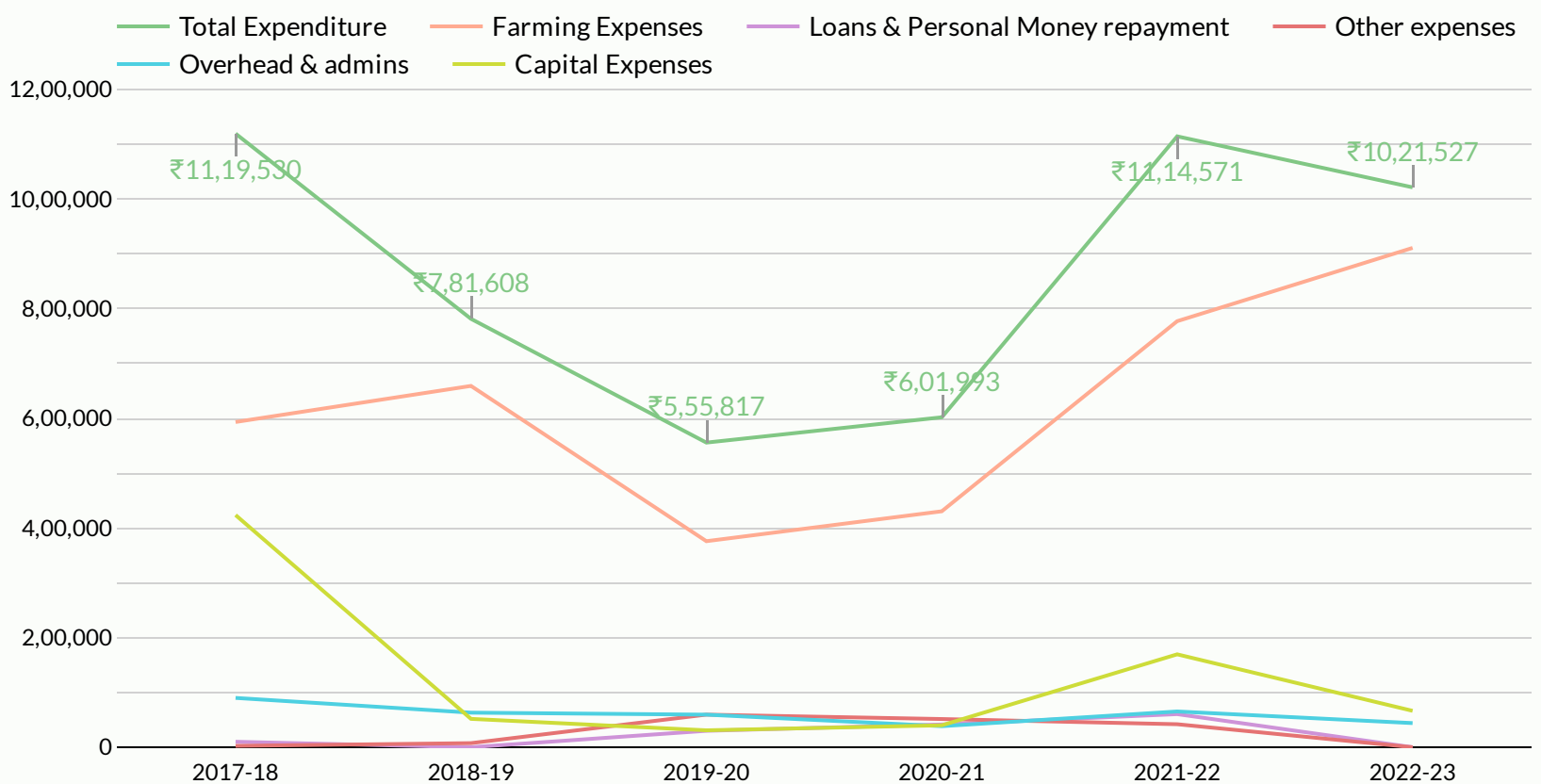


Chart 7: Expenses across years 2017 - 23

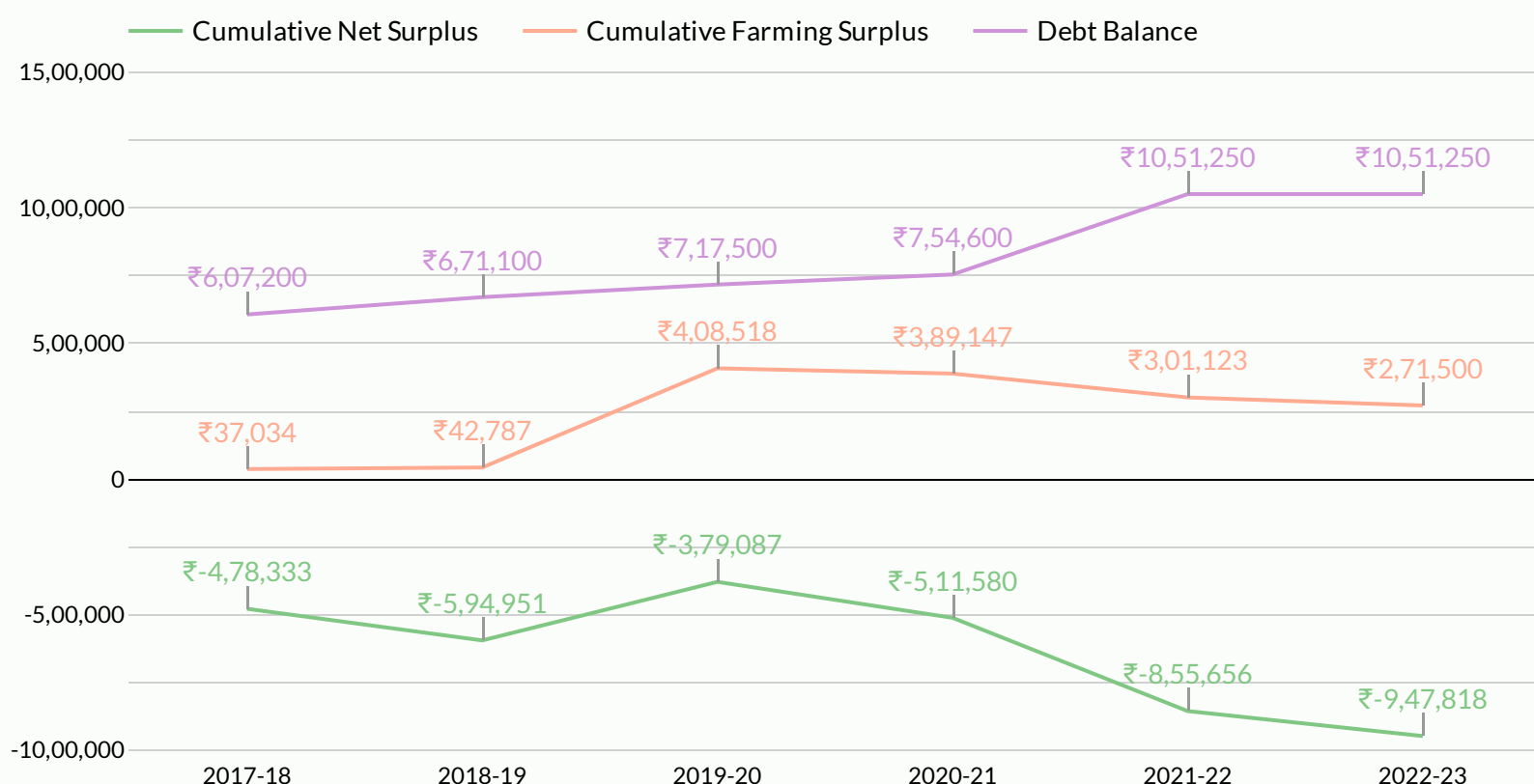


Chart 8: Cumulative Net Surplus, Cumulative Farming surplus and Debt Balance

The trend lines of the net surplus and debt balance are going in the opposite directions which is concerning. The farm is staying afloat primarily due to the farmer's personal funds invested into the farm. The farm depends mainly on income from the dairy and even that is not enough to cover the farming expenses, let alone paying back the external loans taken and personal funds invested in the farm as we can see the farming surplus is trending downwards. If the farm doesn't plan an expansion or change of activities, it would be difficult for the farmer to recover his investments in the long term and the farm's financial sustainability is at risk.

Net surplus is the "total income" - "total expense" of a farm for a year. This does not include any debt. The chart shows this number cumulatively starting from 2017-18.

Farming Surplus is "farming Income" - "farming expenditure". This is the surplus a farm is able to generate from its activities alone. Chart is cumulative starting from 2017-18.

Debt Balance is the remaining debt that the farm owes. This "debt" can be in the form of external loans or personal investments by the farmer. Chart is cumulative starting from 2017-18.

Challenges and Needs

The farmer identifies fencing and the lack of his own water supply as the main needs of the farm. The farm doesn't have a borewell on the land and water is rented from a neighbour for ₹4000/month.

There is heavy pressure from wildlife in the area which makes vegetable cultivation very difficult. The farmer has struggled to install an effective electric fencing due to lack of technical knowledge and some land dispute with the neighbour.

The land is also prone to flooding during heavy rainfall making it unusable for at least a few months. During the heavy monsoon, even the cows are not able to leave their cowshed to graze. Often, Mani's mother has to wade through the water to bring grain feed to the cows.

Conclusion

While Mani is trying to keep the farm afloat with minimal labour and personal investments, the farm lacks proper planning of space and other resources. Although the farmer envisions making a food forest on the land, there is no clear strategy to realise this vision and make the farm sustainable; ecologically and economically. The dairy seems to be the only steady source of income for the farm and the farmer is yet to configure other farm activities that can support the farm holistically.

Since the currently used land is flood-prone, landscaping/contouring of the land may be required to make it useful for perennial cultivation such as fodder for the dairy, fruit trees etc.

The land will benefit from a larger plan on how its unique context can be used for food production of Auroville, and to assess if this land is suitable for cultivation at all. Technical support for the farmer for electric fencing and financial management will also help solve some of the immediate challenges on the farm.