



## **:Story of Agasebagilu Tank Development:**

**Summary:** *Tank development means not just improving the water spread area. It increases a micro-ecosystem. It provides lots of substances for social and economic life of the local communities. Development of water tank opens the path of sustainable development. Naruru tank is best example to all this.*

Agasebagilu tank is situated in Naruru village of Banavasi hobli, Sirsi taluk, Uttara Kannada district feeding the water to 64 ha in the command area. It is constructed long ago near to the entrance of the village, therefore the tank got *Agasebagilu* name. Water spared area is 17 acres. This tank irrigates command area in 5 villags, namely, Naruru, Edegoppa, Muthalakoppa, Linganamatti and Banavasi. Totally, 160 households benefit from the tank water. Paddy is main crop grown during monsoon in the command area. During post-monsoon different crops are grown by the farmers. The spill over water walks for a kilometer and join the River Varada.



Vinayaka Bhat, a farmer of the village express that “in 2012 the command area was looking completely green during monsoon and even during post-monsoon 150 acres of land was having diversified crops. Groundnut was grown more during post-monsoon season; black gram, green gram, bavade, avare, ellu, sesamum, jowar strips for fodder, senabu, Radish were also grown that shows diversity. There were very less borewells and people were always engaged in the agriculture farm”.

There was drought from 2015 to 2018 wherein tank was dried up. More borewells were dug. On the other hand, people increased the use of chemical fertilizers and pesticides, the cultivation of second crop during post-monsoon diminished and yield are decreased. Maize, monocrop replaced the area of diversified crops.

In 2009, tank users group (TUG) was formed in the village and tank development works were taken up under *Jala SamvardhaneYojane* of Government of Karnataka. Two tanks (Agasebagilu and Savathi kere) were developed under the JSY scheme. The same TUG is continued till now. Very less silt was removed during modernization of tanks under JSY scheme. Since it is 13 years over after renovation of the tank, silt is deposited over these 13 years. Hence, water holding capacity of the tank decreased. With little rain the tanks are filling and overflowing. Within few days tank gets dried up and it become common to dry during summer.

MANUVIKASA NGO provided financial assistance to the TUG under the Cococola CSR program during 2018. De-siltation works were under taken for 90 days with the use of 2 Hitachi and 12 tractors to carry the silt to the farmers land. Hitachi cost was born by the MANUVIKASA and farmers mobilized the tractors locally. Moreover, the Hitachi driver was served food by the villagers. The red colored sandy soil of the tank felt to be fertile, hence farmers applied on their land. Daily 250 loads of tank silt was lifted, which accounts total 22,500 trips for 90 days.

The work started in 2018 completed in 2019. Due to heavy rain while removing silt left the balance silt in the tank, which lifted out during 2019 summer with the use of JCBs and tractors.



If we observe from 2019 to present (August 2022) there is lot of changes in the tank due to removal of silt. First of all, the water holding capacity of the tank increased; secondly, they could increase the irrigated area more with increased availability of water in terms of quantity. Further, the application of silt to the land improved their soil fertility in the land, which resulted in higher crop yield and income. As said by Vinayaka Bhat, the productivity is increased around 25% more than previous year. Few farmers even got higher yield at 30 to 40%.

They have not used more chemical fertilizers in the year when they applied the silt to their land. Only few farmers used in small quantity. This gave double profit. On the one hand, the cost of cultivation is decreased and on the other agriculture yield and income increased. For an example, the farmer namely, Chandra Naika cultivated paddy in one acre normally use to get 10 quintals, now got 2 quintals more after application of silt and the value of the increased yield is Rs.3,000. When 3 quintals of chemical fertilizer reduced without application the savings in cultivation cost is Rs.3,000 and both put together the profit for the farmer is Rs.6,000 in one acre.

If we apply this calculation to the entire 150 acres the total savings for the 160 farmers in 150 acres of land is Rs.9 lakhs and the average profit is per family is Rs.5,625 per crop. Since they are growing paddy twice in a year, the total increased income is Rs.18 lakhs and average increased income per family is Rs.11,250 per year.

The cost of silt removal which was spent by the MANUVIKASA returned back in one years' crop. The silt once applied will have nutrient for minimum 3 years and also soil health increases. In this context, there will be sustenance of soil health and incremental income over the years. Since farmers stopped or minimized using chemical fertilizers, soil and water pollution reduced to some extent, which is expected to result in increase in earthworms in the soil, good for honey bee colonies and with the retaining farmer friendly pests there will be more balance in the tank based agriculture ecosystem.



Increase in ground water is another impact of the silt removal. About 60 wells in the village have now filled, which was dried up. There is a well behind Naruru primary school which is in 200 meters away from the tank; it was completely dried during summer. After removal of silt, it has become perennial with full of water from the past 3 years.

Women are also having satisfaction from the tank development. They come to wash the cloths from surrounding villages. Earlier they use to go faraway places like river or land of farmers

having borewells during summer for washing clothes. Since plenty of water is availability in the tank through out the year women are coming to use the tank. Bharathi Naik of the Naruru village says their life become easy now.

Some of the lands in the downstream are in low lying area. When the tank is filled, those areas was getting affected with stagnation of water. The flood of the Varada River was also causing the same problem. Paddy cultivated use to get perished due to stagnation of water and they had to plant paddy again. The farmers applied more silt and filled those low lying areas by levelling equal to other area. Now the water stagnation problem is no more there. About 30 acres of land was getting affected due to water stagnation now completely changed after leveling. Farmers now cultivating two crops in those 30 acres land without any hurdles and stress. When water uses to stagnate there was heated dialogue exchanges between the farmers and also between farmers and the grama panchayath, which some times ended up in conflicting situations. Now all those resolved and there is social harmony in the village.

Thus, If silt is removed from a tank, there is economic, social and ecological benefits. Nururu tank is best example for this. Villagers feel that the silt of Savathi tank and Varade tank to be removed as it was removed from Agasegagilu tank. Savathi tank is bigger than Agasebagilu tank, the development of this tank is going to help more people in surrounding villages.

The tank ecosystem, crop diversity, etc. was returned back to the period of 2012, wherein people are very happy, said by Vinayaka Bhat and may villagers applaud to his statement and feel the same.

**Address:**

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