



Collective Efforts for Supplying Inputs for Zero Budget Natural Farming in Tribal Regions

Facilitating Agency

Implementing Agency

Funding Support from

Main Theme

Watershed Support Services and Activities (WASSAN)

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Azmi Premji Philanthropic Initiatives (APPI)

Inputs to ZBNF such as Cow Urine / Collective effort / Common facility

Zero Budget Natural Farming (ZBNF) protocols require several inputs that could be prepared by farmers with local materials. Cow urine is to be considered one of the most effective inputs in ZBNF practices. Cow urine has certain advantages in accelerating the natural/ bio-active processes in regenerating life in soils. However, it is not always easy to collect cow urine in adequate quantities for all farmers. Most of the cow urine is lost by seepage into soils (while they graze in open lands) and cracks of floors of the cow sheds (when they are at home). Non availability of cow urine due to inefficient and inappropriate collection practices is a major hindrance in spreading the ZBNF to large number of farmers. *Many farmers tend to say – “where is the cow urine to prepare any concoction/ jeevamrutham/ beejamrutham?”*. A pilot was recently completed in Gurrampanuku village, Paderu Division to address this problem.

The pilot aimed at collecting more quantities of cow urine by minimizing loss (through seepage) and improving collection efficiency. WASSAN team had series of meetings with villagers/ farmers who have cows. Out of 17 farmers in the village, only 11 families have cows. These farmers agreed to be part of this pilot, after series of discussions with WASSAN. After feasibility study, it is found that only 8 cow sheds could be connected/ networked with each other. Currently, these 8 cowsheds host 41 cows/ bullocks. Remaining 3 cow sheds could not relate to each other (due to physical barriers/ locational issues).

As part of this pilot, the following activities are completed.

- 1 Floor of each cowshed is made waterproof/ leak proof (floors are plastered with cement plastering)
- 2 Appropriate slope is provided to the floors to allow free and quick drainage of the cow urine
- 3 Collection chamber is constructed in the cow shed (where the entire urine of the cows in the shed collected) and an outlet is connected to this collection chamber.
- 4 This outlet collects the cow urine which is free from any solid matter (cow dung/ agricultural waste). Outlets of 8 cow sheds relate to a pipeline network.
- 5 At the end of this pipe network, a tank is constructed. This tank collects the entire cow urine from these 8 cow sheds. The tank has two chambers and has a capacity of 2400 lts.



This urine is available for preparing various types of concoctions such as *drava jeevamrutham*; *Ghana jeevamrutham*; *beejamrutham*, etc. Farmers can collect cow urine in bottles/ cans, by operating the tap of the tank. They can also sell the surplus of the cow urine and/or make cow urine-based inputs (for ZBNF). For this purpose, additional tanks, water supply systems are being established. This pilot started demonstrating efficient methods for collection of cow urine already.

Physical infrastructure is established by Oct 2019. Total expenditure of this pilot was Rs. 186685, out of this 30% was contributed by the farmers in the form of material and mason work.

There is a huge potential for triggering local enterprise with cow urine as a basic raw material. Farmers can easily collect 1000 liters of urine/ month (approximately). 11 farmers have 49.5 acres of land. This land requires 20000 litres of *Jeevamrutham* per year (Two times/ year). For preparing 20000 litres of *jeevamrutham* they need 1000 litres of cow urine. Collection of one month urine is sufficient to meet the needs of the 11 farmers. This group has 11000 litres of surplus cow urine

in a year. With this cow urine, they could produce at least 100000 litres of *Jeevamrutham*. After deducting cost, they could get at least Rs 3 Lakh profit per year. This plant has equipped with the automated solar fermenter for easing the process of *Drvajeevamrutham*. Labor cost is almost nil due to the solar energy and it works in two main steps the main tank has a blender which run automatic and after 72 hours move on to next tank which has filtering facility. The entrepreneur can get clean and filtered *Jeevamrutham* so that farmers can mix water and use it as per their requirement. RARS Chinthapalli are associated with the enterprise to get the profile of final product. The unit has been procured from the suppliers of Automatic Jivamrut machine filter system, Automization, Amravati, Maharashtra. As a part of International Indigenous peoples Day celebrations held on 9th August, 2020 the Gurrampanuku farmers collectively took a decision and self-declared to shift from conventional agriculture to Natural farming practice because of easy and abundant availability of *Jeevamrutham* within the village. Mr.Kamaraju has been elected by the group to run the unit and *Jeevamrutham* sales outlet open up at Gram Panchayat headquarter.



The group of farmers is in the process of developing similar business model around this cow urine collection tank. Four more enterprises are emerged in the tribal villages namely Killoguda ITDA Paderu of Visakhapatnam District and Mogadhara tribal habitation of ITDA Seethampeta of Srikakulam Districts of Andhra Pradesh.

Directions for ZBNF Saturation Agenda:

- ① Invest in cow shed improvement projects in each village in Paderu.
- ② Identify all locations/ villages where farmers would like to improve their cow sheds. Facilitate networking these cow sheds for collecting cow urine.
- ③ Support farmers to get into cow urine-based enterprises, which will trigger higher level adoption of ZBNF.

