

## AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY

### Final Project Report of Unnat Bharat Abhiyan

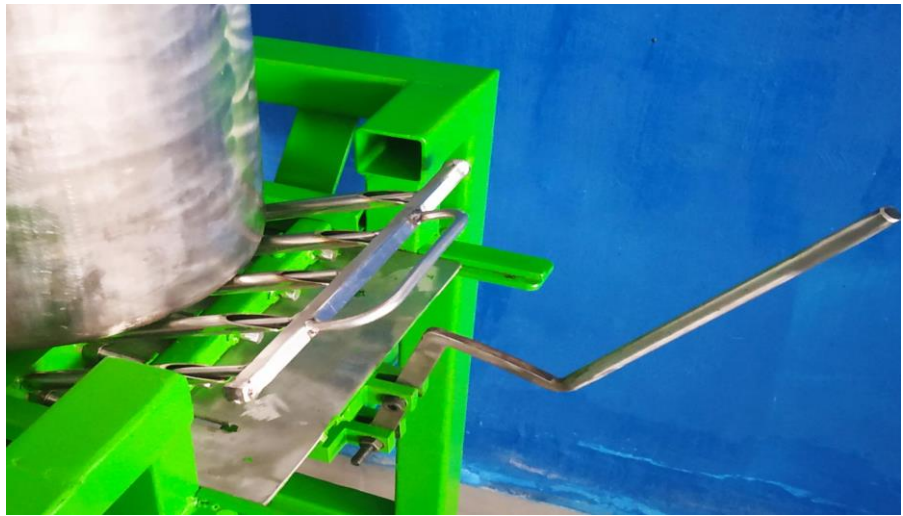
#### FABRICATION AND INSTALLATION OF SEED BALLS PRODUCTION EQUIPMENT

1	Name of the institute & code	AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY <b>C-10224</b>
2	Title of the project	“FABRICATION AND INSTALLATION OF SEED BALLS PRODUCTION EQUIPMENT”
3	Name of Subject expert group	Mr. N. Fedal Castro, Principal Investigator, Assistant Professor – Gr II, Department of Mechanical Engineering, AVIT
4	Name of villages where project development activities was carried out	<b>Arunkundram</b>
5	Duration / Budget of the project	<b>4 Months, Rs. 70,000/-</b>
6	Brief Introduction	One of the natural plantation techniques is seed ball. Seed balls require less man power and simple process to manufacture and execution. So far no good techniques had been developed to produce seed balls in large quantity and in short period of time. The innovative system will produce the seed balls at a larger quantity in short time with less man power and with no electricity consumption.
7	Current status/Achievement of the project	The project has been successfully fabricated, installed and tested. The principal investigator of this project Mr. Fedal Castro had installed and trained the village people on how to use the equipment.
8	Project Outcomes	<ul style="list-style-type: none"><li>• 150 seed balls shall be produced per hour of operation with two unskilled labours in working.</li><li>• In a single stroke of operation 5nos of seed balls have been produced.</li><li>• Students were gained knowledge on designing, fabricating and testing the equipment.</li></ul>
9	Description of Project in 150 words	The main objective of this project is to design, fabricate and installation of seed balls manufacturing equipment for the production of seed balls at larger quantities and in lesser time. The design involves a lesser space for the operation and can be operated by even an unskilled person. In this design, no electricity is required for the production and everything is manually operated. The equipment consists of a cylindrical SS vessel where it is open at the top and has dies which is removable at the bottom. There are five cylindrical dies and have feeding arrangement for the seeds. The raw material (mixture of clay, red soil, sand and manure in the form of paste) is fed in to the SS vessel and then the vessel is fitted with rotating press at the top. When we rotate the press

manually and simultaneously seeds are placed in the opening of dies, the seed balls are formed in the dies at the bottom of vessel and it is sliced manually by means of sliding arrangement. Once sliced, the seed balls will be collected in the plates and then taken to keep it for drying.

**10** **Photos of the UBA activities (maximum of 6 photograph of high resolution)**







11	<b>Description of each photos in maximum of 50 word</b>	<ul style="list-style-type: none"> <li>• The first picture represents the total view and complete set up of the equipment.</li> <li>• The second picture is showing the raw material tank which has lead screw and a rotating press for compressing the raw material.</li> <li>• The third picture is showing the feed of seed arrangement in the equipment and a cutting mechanism which cuts the seed balls from the dies.</li> <li>• The fourth picture represents the dies of seed balls equipment which will be fitted at the bottom of the tank.</li> <li>• The fifth and sixth pictures had been taken during the demonstration of working of this equipment to the village people.</li> </ul>
12	<b>4 key words</b>	Seed balls, Equipment, Agriculture and Green environment.
Optional		
13	<b>Other relevant information (100 words) optional</b>	As there are no mechanism available to produce seed balls, this equipment is designed, fabricated and tested for production of seed balls mechanically. To promote the MHRD-Unnat Bharat Abhiyan initiatives among the rural people this project has been developed. This initiative shall be promoted to all the adopted villages by our institution, so that the socio economic status of the villagers will be increasing and to serve the nature by enhancing its <b>greener environment and employability to the rural mass.</b>