A Review Paper on Sustainable E-Ploughing In Agriculture

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Abstract- *The main goal is to design a tool which can be a source of multiple usage in the field of Agriculture. In today's modern era machines have a vital role to play in the field of agriculture to make the process smooth and time saving, but in the past due to the lack of technological ideologies there was a lot of manual work involved which indeed was time consuming, fast forward to present conditions due to the increase in demand, time became an important commodity to satisfy the needs of the society. The proposed idea primarily focuses on e-ploughing which can be smooth and time saving, along with that, processes such as seeding, bedding, chopping of weeds/dead plants, etc. all can be done with the facility of detachable plough tool arrangement.*

In this way a lot of help can be offered to the farmers by making their work efficient and smooth through the process of e-ploughing.

Keywords- Agriculture, Detachable. E-ploughing, Efficient, Multi-purpose, Smooth.

I. INTRODUCTION

Agriculture plays an important role in the Indian economy so creating an efficient process in this field should be the top priority. Traditional farming was led by the use of Animals and Humans itself. But once the modern era arrived the main problems the agricultural field faced were lack of labor availability, lack of knowledge regarding soil testing, increase in labor wages, wastage of seeds and water.

To overcome all of the above demerits the idea of developing a sustainable e-ploughing for agriculture seem to be a necessity. This kind of E-ploughing will not only help the farmer to achieve good quality cultivation but also help them increase their productivity, to satisfy this purpose the use of right kind of technology combined together with ease of operation of the device will be the defining factor.

II. PROBLEMIDENTIFICATION

After Analyzing all the data collected, we have identified various problems while designing the model of E-Ploughing Machine some of them are listed below:

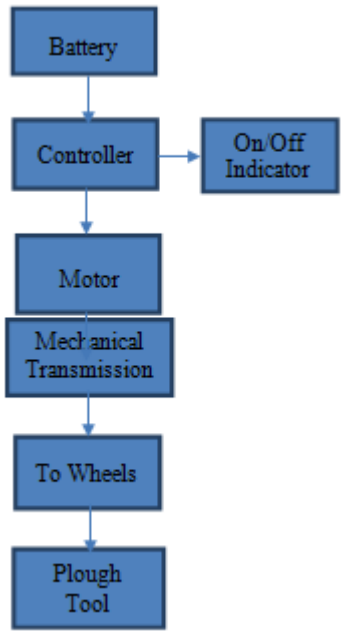
1. Less use of modern farming equipment's.
2. Lack of labor availability.
3. Difficulty in Digging of Hard soil and Muddy soil.
4. Access wastage of seeds and water.

III. OBJECTIVES

The main objective of this project is to solve all the identified problems by making use of E-ploughing. And here are some of the other main objectives that we have considered in this Design Model;

1. Machine introduced should be as efficient as possible.
2. Multi-purpose.
3. Able to withstand difficult condition given the location and climate around.
4. Smooth operation.

IV. FLOW CHART



V. PROPOSEDMETHODOLOGY

The Main idea is to focus on the enhancement in productivity of the farmers by the use of Remote operation which makes things easier by its smooth and efficient working. The proposed model consists of a four wheel driven car with a detachable plough tool arrangement given at the bottom center portion of the vehicle, Reason being so as to perform the task of ploughing more efficiently and easily. Apart from ploughing the machine will also be able to perform various other tasks which are essential apart from ploughing,i.e. Soil bed preparation, Water sprinkler, Fertilizer spraying, Seed sowing, Soil moisture and humidity measurement, etc.

VI. CONCLUSION

Machine introduced is multi-purpose i.e. it comes with a detachable plough tool arrangement so as to help the farmer achieve multi-tasking and avoid unnecessary machinery for various tasks, the primary focus is to achieve ploughing which is sustainable so as to keep the farmer care-free regarding its tools and equipment's in the long run

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