

<sup>1</sup> Snitha Shetty\*  
<sup>2</sup> Deviprasad Rai P  
<sup>3</sup> Dhruv Kishore Shetty  
<sup>4</sup> Prateek C Kotian  
<sup>5</sup> S. Athreya Shankar

## VEGSHELL



**Abstract:** - The Agricultural sector provides employment to over two third of the population of our country. This project aims at building a community for the farmers, educating them about high margin crops, practices to follow increase their profitability. Every now and then we hearing about the pathetic condition about our farmers. And despite employing more than 50% of the workforce the condition of the Indian agricultural section has been very bad. Every time we listen to this, we curse the government and we just move on until another news comes in. And because of this shallow activity we never understand the problem of our farmers at the ground level. The consistent high growth of agriculture sector is a prerequisite for India to become a globally economic superpower. Our application has been designed in such a way that farmers with no much education could easily adapt to our application. During the time of green revolution to make India ‘food self-sufficient’ we started farming major crops like wheat, rice etc. Even today we continue the same. It requires a change; it is also needed to concentrate equally on crops with higher margin.

**Keywords:** Community, Education, User friendly.

### I. INTRODUCTION

The Agricultural sector provides employment to over two third of the population of our country. This project aims at building a community for the farmers, educating them about high margin crops, practices to follow increase their profitability. Every now and then we hearing about the pathetic condition about our farmers. And despite employing more than 50% of the workforce the condition of the Indian agricultural section has been very bad. Every time we listen to this, we curse the government and we just move on until another news comes in. And because of this shallow activity we never understand the problem of our farmers at the ground level. The consistent high growth of agriculture sector is a prerequisite for India to become a globally economic superpower [1]. Our application has been designed in such a way that farmers with no much education could easily adapt to our application. During the time of green revolution to make India, food self-sufficient“ we started farming major crops like wheat, rice etc. Even today we continue the same. It requires a change; it is also needed to concentrate equally on crops with higher margin. These days technology is at its best people also make the best use of it. Our project aims at tackling some of the major problems faced by our farmers and also educating them and providing them with all the modern equipment to make their work easier and a lot faster [2]. Our farmers have to travel long distance to reach the APMC so they hire a middleman who takes a bit of their profit. From the time of green revolution our farmers have growing the same type of low yield crops they need to get education regarding crops with higher margin. Farmers need to spend a lot of money to get equipment for which they have to take money from landlords putting them in a disastrous cycle, the farmers of our country get payment of their products after a period of one week we aim to tackle all these problems faced by our farmers and turn this disastrous cycle into a virtuous cycle [3].

### II. PROBLEM STATEMENT

Farmers are dealing with a bunch of problems in agriculture, and one big issue is the middlemen. These middlemen often take advantage of not having enough information and control too much of how things work in selling crops. This leads to unfair prices for farmers, especially the smaller ones, who end up not making much money. Farmers get stuck relying on these middlemen, making it hard for them to reach bigger markets and get fair prices for their crops. Additionally, problems with getting crops from farms to markets and storing them properly add to the challenges. To make farming fairer and more sustainable, we need to fix the middlemen issue by making markets more transparent and efficient. We can also use technology to help farmers connect directly with consumers, cutting out the middlemen and ensuring farmers get paid better for their hard work. Agricultural sector is the backbone of Indian economy. Farmers in India are facing numerous challenges such as rising input cost, poor supply chain management. India is an influential agricultural powerhouse worldwide, having farmers

<sup>1</sup> Computer Science and Engineering, A.J. Institute of Engineering and Technology, Mangaluru, India. snitha@ajiet.edu.in

<sup>2</sup> Computer Science and Engineering, A.J. Institute of Engineering and Technology Mangaluru, India. dpraidola@gmail.com

<sup>3</sup> Computer Science and Engineering, A.J. Institute of Engineering and Technology, Mangaluru, India. dhruvkshetty10@gmail.com

<sup>4</sup> Computer Science and Engineering, A.J. Institute of Engineering and Technology, Mangaluru, India. pckotian40@gmail.com

<sup>5</sup> Computer Science and Engineering, A.J. Institute of Engineering and Technology, Mangaluru, India. athrey036@gmail.com

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and all related workers as its backbone. Like many other sectors, the agricultural landscape also faces decades-long problems and unexpected challenges that are crucial to rectify. Farmers produce crops, take it to APMC (Government licensed traders set up by government to ensure that farmers are not exploited by open trades also referred to as mandi). But problems were, the mandi are about 30-50 kilometers far away from the farmers and 80% of these farmers in our country are small farmers so most of them neither had storage facilities nor could they afford transportation. Therefore, they had to rent a truck or had to sell it to a junior contractor who sold it to the APMC or the mandi. The Mandi people would delay the payment of the farmer from 1 week to more than 6 months. And this pathetic system put the farmers in a vicious cycle. In most areas, to date, farmers follow primitive cultivation methods; traditionally-used plough and relevant native accessories continue to be farmers' preference[8]. Despite no shortage of efficient equipment and machinery, there's very little use of modern equipment, majorly because most farmers don't have lands huge enough to use advanced instruments, heavy machinery. Indian farmers are growing rice and wheat for centuries now in several regions. The excessive production of the two grains, many times lead to the storage, sale problems and shortage of other farm products. "India is heading toward a fourth record wheat harvest and near-record rice production for 2020-21" – the US Department of Agriculture.

### III. EXISTING SYSTEM

Agricultural sector is the backbone of Indian economy. Farmers in India are facing numerous challenges such as rising input cost, poor supply chain management. India is an influential agricultural powerhouse worldwide, having farmers and all related workers as its backbone. Like many other sectors, the agricultural landscape also faces decades-long problems and unexpected challenges that are crucial to rectify. Farmers produce crops, take it to APMC (Government licensed traders set up by government to ensure that farmers are not exploited by open trades also referred to as mandi). But problems were, the mandi are about 30-50 kilometers far away from the farmers and 80% of these farmers in our country are small farmers so most of them neither had storage facilities nor could they afford transportation. Therefore, they had to rent a truck or had to sell it to a junior contractor who sold it to the APMC or the mandi. The Mandi people would delay the payment of the farmer from 1 week to more than 6 months. And this pathetic system put the farmers in a vicious cycle. In most areas, to date, farmers follow primitive cultivation methods; traditionally-used plough and relevant native accessories continue to be farmers' preference[7]. Despite no shortage of efficient equipment and machinery, there's very little use of modern equipment, majorly because most farmers don't have lands huge enough to use advanced instruments, heavy machinery. Indian farmers are growing rice and wheat for centuries now in several regions[4]. The excessive production of the two grains, many times lead to the storage, sale problems and shortage of other farm products. "India is heading toward a fourth record wheat harvest and near-record rice production for 2020-21" – the US Department of Agriculture.

### IV. PROPOSED SYSTEM

Collecting products from farmers at their doorstep thus solving their major problem of transportation and storage. Thus removing middlemen from the process. By giving Farmers the price they deserve i.e. turning down the disastrous auction system. Providing them a farming community which will reduce the setup cost by sharing of equipment's, connecting the farmers with large land owners who wish to give them land in return of shared profit. They can also interact with other farmers and can share their ideas and problems and getting right solution. Educating the farmers regarding high profit crops to grow, practices to follow thus solving the unsolved problem of educating the farmers. We would use the agricultural products to create FMCG product like soyabean is used to create oil. Agro wastes are used for manufacturing biofuels, animal feeds.

### V. OBJECTIVES

The main objective of VEGSHELL is to be farmer's best friend. They would be provided with proper information like the best time to sow the seeds, the spacing between the seed and other information to increase their profit. Cash on delivery, paying the amount at the time of delivery only this will lead to better cash flow that would avoid farmers from taking money from lenders[7]. According to census 2011, 85% have less than 2 hectares land holding so the aim is to connect farmers to people who will allow them to do farming on their land instead of leaving the land unproductive for shared profits. We would also recommend to the farmers as to what is the right crop that needs to be grown on that particular land[9][10]. To save the cost on equipment's, by creating a boundary of nearly 150kms where the entire equipment would be shared between the farmers. The above-mentioned objective would also reduce their investment. To educate farmers regarding the practices that they can implement to grow crops with higher profit and also educate the farmers regarding the best fertilizer to be used for their crop depending upon the Nitrogen, Phosphorous and Potassium content in the soil[5]. Turn this disastrous vicious cycle into a virtuous cycle increase farmer's cash flow leading to higher production and more profit. The farmers would be provided with advanced weather reports that will help them plan better[6].

### VI. EXPECTED OUTCOMES

Providing them a farming community which will reduce the setup cost by sharing of equipment's, connecting the farmers with large land owners who wish to give them land in return of shared profit. They can also interact with other farmers and can share their ideas and problems and getting right solution.

We plan to turn down the disastrous vicious cycle that the farmers are currently facing by removing middleman from the process.

We plan to increase the cash flow of the farmers by giving them daily payments in the traditional system the farmers are delayed payments by weeks. Cash in hand definitely means a lot in business this would encourage the farmers to take less debt.

We plan to reduce the setup cost on equipment by providing farmers with the shared community. Thus reducing their major cost of buying equipment and taking debt for the same.

Nearly 65% of our farmers lack basic education this needs to change thus we are solving the unsolved problem of educating the farmers.

The major problem is agricultural waste we plan to use these agricultural waste to make dhoop sticks etc. and come up with our own FMCG sector.

## VII. BUSINESS STRATEGY

Our main aim is to give farmers right price for their product while doing so we plan to open warehouses solving farmers storage problem. Doing so we are able to provide customers better discount, value for money product, encouraging them to buy from us. We run on a Direct to Consumer model removing commission from middle. Giving buyers product at a discounted price compared to the present market price. We provide farmers doorstep pickup thus removing their transportation problem. Using the farm products we also plan to expand into FMCG sector, sourcing raw materials would be easy for us compared to our competition. We provide farmers education at reasonable price educating them to grow high yield crops like mushroom which has terrific value in Japan. We plan to build a community through which we are able to provide farmers with large area of land by connecting them with large land owners who wish to give their land to farmers for shared return and also reduce the equipment cost by sharing resources at a radius of around 150km. Farmers not well versed with technology are given help through our call centers .

## VIII. FUTURE WORK

Providing farmers with inputs regarding what price they can expect for their production.

We will be using nose sensors to scatter products. This will help us reduce wastage significantly.

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