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Smart Agro: Agriculture with Technology and Management

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ABSTRACT: This project is made with aim of ONE STOP SOLUTION for the AGRICULTURE INDUSTRY with solving for increasing income of INDIAN FARMER & for revolution in agriculture industry we are making platform SMARTAGRO, SMARTAGRO MANDI & AGROVILLOTOURISM in the form of web application.
We have done the on ground research in villages of Varanasi District , Ghazipur District & Ballia District and many more after looking all the problem like not using scientific & technical method to increase income we come with solution which can give our country Agricultural Entrepreneur.
We are completely increasing the culture for taking farming as business our solution starting with what to do & how to do with end goal to sale the product with high profit.
We are aiming to also increase agrotourism in India create a good cross market for agriculture & tourism.
Overall our platform is coming with AGRICULTURE WITH TECHNOLOGY & MANAGEMENT :- "SMART AGRO"

I. INTRODUCTION

Overview:

A. Agriculture With Management & Technology

Indian farmer not getting profit as that need due to that rural development is slow.
More than 80% percentage of rural & village people occupation is related to agriculture.
If agriculture will treat as industry then their will basically development will in rural area.
Firstly Agriculture Sector is taken as industry & we have to work like all other industry with management & technology implementation.
For better productivity we should implement technology in farming which cover all technology it can be mechanical as well as computational like AI,ML& IOT.
For better profit we should implement management skill like market search, input/output cost & profit & most important marketing & sells.

B. Smart Agriculture

Indian farmer should do smart agriculture in following ways:

1) With proper research of market. With proper weather condition. With training. Scientifically.
2) Organic farming. Dairy. Poultry farming.
3) Exotic farming. Making their farming as business model. Deliver their product b2b & b2c directly.

C. Agriculture With Technology

Indian farmer should do implement technology agriculture in following ways :

1) Use of internet for research & training. Disease diagnosis of crops. Mechanical product for fast processing. Intelligent spraying & irrigation.
2) Soil check which is also free that can reduce the cost of fertilisers & pesticides.
3) Most important sow that seed that is genetically developed & give maximum profit.
4) Crop & soil monitoring.
5) Use of internet for selling purpose.

D. Agriculture With Management & Business Model

Indian farmer should do agriculture in proper business model & for that they should follow below thing that I mention:

1) Organic farming & selling it b2b & b2c.

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2) All session farming of non sessional crops/fruits/ vegetable.
3) Specific fruit & vegetable farming.
4) Framing of that things which have international demand.
5) Framing of that things which are less in market.
6) Framing of that things which have most demand in market.

E. India & Rural Development With Agriculture

If there is development in agriculture sector it will give occupation in many sector.
More occupation in agriculture sector will increase economy of rural area.
If economy & profit increase then rural development will automatically take its height.

II. BACKGROUND

When any country farmer condition improve then that country going to grow automatically
But in India farmer's conditions is not so good. Farming methodology is outdated & framing is not take as business. If we want to grow firstly we should focus on agriculture sector of India and treat agriculture as industry like other for example IT industry, fabric industry etc.
We find that Indian farmers are not taking farming as business but they just doing framing sell it any how with many time loss or without good prize.
For framers improvement we should need their training about scientific methodology of agriculture and tell them how to do business of their farm product, how to sell directly to end customer, how to mange every things in framing & get maximum profit.
After understanding of problem of agriculture industry we review lot of agriculture research on ground we come with solution SMART AGRO

III. ON - GROUND RESEARCH

We have done on ground research about farming, different type of farming & most important about the farmer also. Now firstly talking about the farmer then rate of input money & rate of output money or we can say that overall income is not totally satisfactory .
We have that if farmer going to farming with proper research & scientifically with also proper management and technology then their income will be most higher than any industry individual .
We have done the research than freer need the help of this things : -

1) Training
2) Market Research
3) Supplies & Support
4) Technology Support
5) Sales & business support
6) Advance technology agriculture

Over all demand is that taking agriculture as business & framer as agricultural Entrepreneur & Business man.
We have done the on ground research in villages of Varanasi District , Ghazipur District & Ballia District and many more

IV. OBJECTIVE & SIGNIFICANCE OF THE STUDY

Objective & Significance of the study for this project are following :-

1) Improvement of condition of framer .
2) Changing India agriculture present scenario .
3) Making agriculture as Industrial sector like other .
4) Feating agriculture on business model.
5) Increase the scope of Agricultural Entrepreneur
6) Making a single platform for all service
7) Increasing technology use in agriculture.
8) IOT in agriculture.

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9) Making business model of agriculture
10) Increasing organic framing
11) Increasing sell off farmer .
12) Increasing over all income
13) India & Rural Development with agriculture
14) SMART AGRO = SMART AGRICULTURE = Agriculture with technology , science & management.

V. HYPOTHESIS

On finding the problem statement that is generate by background & on ground research we find that followings things are demands we can proposed the following solution :-
#Idea {Solution} & Prototype
We providing complete solution at one place for India farmer to improve their condition make them a highly profitable farmer.
We providing our solution in form of website & app which is currently in prototype phase.
We want that all Indian farmer do agriculture in smart scientific way with keeping business of their product.
Our goal to change Indian farmer to complete business man means as like other business sector which provide employment as well totally connected to technology & growing day by day agriculture sector should also connect with (or with help of) technology it should be grow & earn.
Now coming to our solution we providing the following with help of our web & app support:

1) *Training:* We training farmer with help of video/ article/on ground training about what to farm, how to farm, how to do business with that farming.
2) *Market Research*: We do market research for farming, what is nation & international demand, price forecast & many more.
3) *Supplies & Support:* We give soil testing support, fertiliser support, organic farming inputs support whether support & many more.
4) *Technology Support:* We providing robotic machine, sharing machine, rental machine for agriculture.
5) *Sales & Business Support*: We give personal guide & platform to sell their product directly end consumer or white levelling business selling.
6) *Advance Technology Agriculture*: Farmer which already getting good profit & doing scientific farming to them we provide & develop the area of **"**AI(Artificial Intelligence) in Agriculture"

VI. PROPOSED METHODOLOGY

We providing our solution in form of website and app which methodology & function are :-

1) Website and app will be multiple language
2) Website will be on MERN Stack.
3) Website will be multi languages means it will in regional language.
4) Their will two part of website means two different website
5) One website will be training, support & supplies & advance technology help .
6) Other website will be e - commerce website which will give b2b and b2c platform
7) From website farmer can directly sell their product .
8) Website have weather report API
9) Market Research of what to grow or what to not will be help Data Analytics.
10) There will cross - platform application (app) .
11) App will run on all type Operating system (os)
12) For both IOS & Android app we will designs with Flutter & Dart.
13) We provide advance technology help with IOT in agriculture
14) Designed business model will provided to every farmer.
15) Starting from cultivation and farming we will support to sell also through our web & app services.
16) Our B2C service will provided by us will help farmer to directly sell to end consumer.
17) From B2B our service framer can do white level business.
18) Over all it will be single service platform which cover all things for Agriculture Industry.

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VII. SCOPE & FEASIBILITY STUDY

1) All sector and industries which have link with agriculture and agricultural product including rural area of India will develop.
2) Our platform help to cover international demand of agricultural product.
3) When any country farmer condition improve then that country going to grow automatically
4) Scope of this project is that we can change it as business.
5) By charging the service & other things we can earn a lot.
6) If there is development in agriculture sector it will give occupation in many sector.
7) More occupation in agriculture sector will increase economy of rural area.
8) If economy & profit increase then rural development will automatically take its height.
9) Our platform complete revolute INDIAN AGRICULTURE SYSTEM.
10) It will feasible to every type of farmer & going to give lot of AGRICULTURAL ENTREPRENEUR.

VIII. PROJECT REQUIREMENT

Following are the requirement for the project fulfilment which include in domain of research requirements, technology requirement , case study requirement and many more :-

1) Agriculture Knowledge
2) Business Knowledge
3) Web Development
4) App Development
5) UI/X
6) Case Study
7) Farm Land
8) Farmers
9) HOSTING/DOMAIN
10) Technical Knowledge
11) Agriculture Product
12) MERN Stack
13) Computer System
14) Mobile IOS & ANDOID

IX. PROJECT TOOLS & TECHNOLOGY

A. *List of tool & Technology for Web Site*

1) Mongo DB
2) Express JS
3) React JS
4) Node JS
5) IDE
6) WEB BROWSER

B. *List of tool & Technology for Cross - Platform*

1) Flutter
2) Dart

X. ON - GROUND EXCEPTED OUTPUT

Following are the On Ground Excepted Output :-

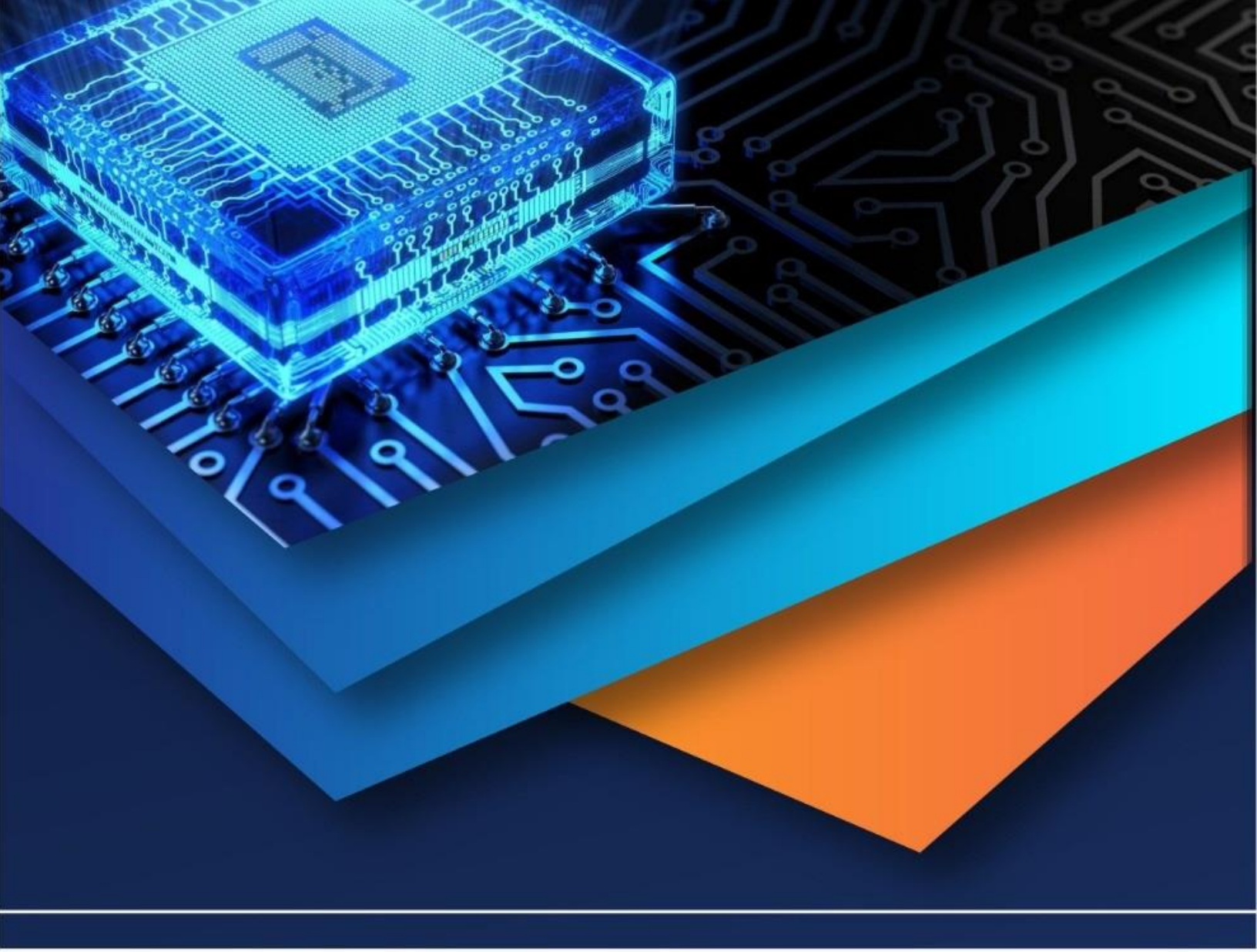
1) India Framer are getting maximum output.
2) Complete solution for agriculture industry.
3) Framing sells increase.
4) More occupation in agriculture sector will increase economy of rural area.

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5) If economy & profit increase then rural development will automatically take its height.
6) Our platform complete revolute INDIAN AGRICULTURE SYSTEM.
7) It will feasible to every type of farmer & going to give lot of AGRICULTURAL ENTREPRENEUR.

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