

Smartphone Advisory App for Medicinal and Aromatic Plant Growers

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Abstract— Cultivation of medicinal and aromatic plants has become a challenge in front of the agriculture sector and the cultivators as the post harvesting techniques are complicated and the market is unorganized. There is very less control of the government over the market of medicinal and aromatic plants. There are several marketing problems faced by the cultivators of medicinal and aromatic plants in Maharashtra. More over the cultivation of medicinal plants is made easy by providing technical knowhow of agronomy of the medicinal and aromatic plants but the marketing of these plants is major challenge before the agriculture sector and cultivators. The proposed app will have a geocoded system and medicinal and aromatic plant related data. It will provide a platform to farmers which will help and guide them through various agro techniques possibly taken to enhance the production and storage that helps in secure application development.

Keywords: Aromatic, Geocoded, Agronomy, Agro-Techniques, Inadequate Groundwater, Credit Marketing, Technical Guidance, Small-Scale Farming, Contract Farming, International Market

I. INTRODUCTION

In India a vast area is barren, often failure of traditional agricultural crops are common due to over dependency on nature. Although cultivation of aromatic crops has a lot of potentiality has remain mostly unexploited. Small holding size, unproductive forest plantation, poor management, poor availability of improved genetic material, frequent incidence of cyclones/heavy rains, inadequate groundwater are the main hindrance for popularizing cultivation of aromatic crops in the region.

Due to lack of proper marketing facilities, this agro industry is not growing rapidly. With active encouragement and participation of flavor and fragrance industries trade of aromatic crops and their products can be established. This is so because of easy availability of labor and trained man power, vast tracts of uncultivated land and large number of government/non-government technologies, transfer agencies etc. moreover less seasonal variation witnessed in the region enable uninterrupted and round the year production of these crops. Further the conjunction of ground and rain water through micro/macro watershed management, cultivation of aromatic plants in semi-arid region is likely to get boost in the near future.

This project basically aims to connect diverse players in the medicinal and aromatic plants (MAP) supply chain in India. It seeks to be a one stop virtual showcase for MAP sector that displays related goods and services thereby connecting prospective buyers and sellers. The multilingual web based app with a supporting mobile app provides any time anywhere access to the service. The user of the platform includes collectors, small farmers, cooperative, company, service provider, experts, input agencies, processing centers,

small traders, etc. The demonstrated utility of the platform includes improved efficiency and transparency of the supply chain, acts as a digital depository of stock holders and medicinal plants related information resources and lead to the better benefit to the farmers and collector in the term of making inform choices.

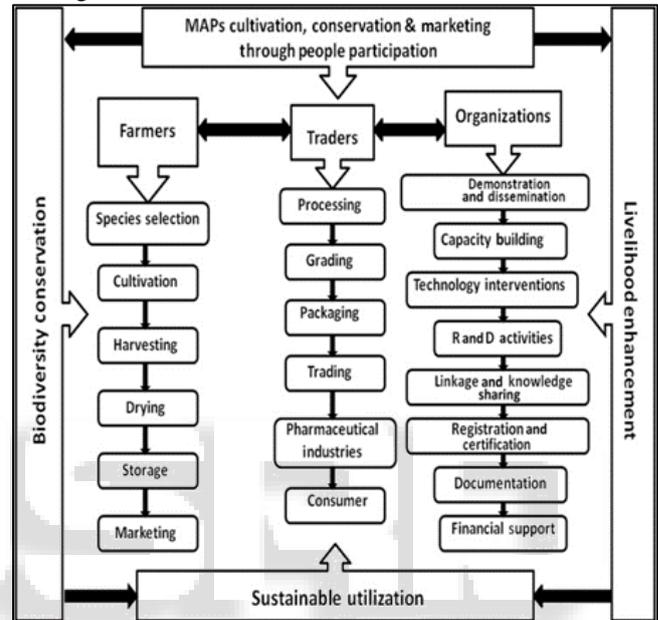


Fig. 1: MAP Chain

To overcome this problem there is a need to develop a web based application so that farmers can get a platform to promote their products and farmers will get a proper guidance to their problems related to aromatic and medicinal plants and will get knowledge about the new agro techniques which will help them for their growth. This proposed application will assist them in all their activities right from methods of cultivation, crop requirements, climatic condition, government policies, display current market rates on dashboard, as well as will guide the processing industries with effective methods that will make produce as per the need and tell them about the ongoing rates in domestic as well as international market. The proposed application will have a section where there will be specific description about the disease related to various plants and also solution related to the disease with images so that farmers will be able to compare and choose the exact solution. We are also providing a option where contract farming as contract farmers can also login which have the benefits like assured market for their produce at their doorsteps, reducing marketing and transaction costs, it also ensures higher production of better quality, financial support in cash and /or kind and technical guidance to the farmers, makes small scale farming competitive - small farmers can access technology, credit, marketing channels and information while lowering transaction costs.

II. LITERATURE REVIEW

- 1) Agri App: Agri App is one of the most liked app by farmers. It has a rating of 4.5 out of 5. It is an online farming marketplace bringing kisan, farming input/output, government service on an online platform. It also provides chat option for farmers. Kisan can easily chat with an expert of agriculture using this app. This mobile application provides diversified videos of agriculture work
- 2) Iffco kisan App: Iffco Kisan App is a small Android app in term of memory with an easy interface to use. This android application provides information about the latest mandi price and various farming tips.
- 3) Agri Media Video App: Agri Media Video App is one of the most popular in mobile apps for farmers in the video category. It has a rating of 4.8 out of 5. It is an online market place bringing farmers agricultural input/output farming retail and fulfilment service on an online platform. It also provides chat service for farmer to solve their query related to agriculture with the option of upload images of infected crops. Farmers can easily chat with agriculture expert and discuss their problem. This smartphone application also provides various videos related to agriculture practice, new technologies, successful farmers, rural development, agriculture news, new government schemes related to agriculture.

The above apps help us to understand what current apps provide to the farmer and what additional features we can add to our app so that the objective of our app will be satisfied.

After a thorough discussion with the group we take the idea to provide diversified knowledge about crops, applications that provides information about the latest agriculture advice, latest mandi prices and various farming tips, the option to know what should be done if crops get infected.

Earlier there were apps which provide the farmers with knowledge about crops like cereals, vegetables and fruits but there was not a single app which will let the farmer know about the medicinal and aromatic plant. This was the reason in lack of production of such crops as the farmers don't have appropriate knowledge.

Advisory app for medicinal & aromatic plant growers will provide a platform to connect farmers, wholesalers and stakeholders. Farmers will register on the website their profile will get created they can add product or view the product, give information about the product. Techniques related to growing crops will be shown. Market prices menu will keep them updated with the ongoing rates in the market, the basic idea of this feature was to help farmers to connect to the market. Information about various government schemes and articles will help them how government can help them. Many times it happen that due to inadequate knowledge about cultivation help which government provide. The farmers don't take initiatives in growing such crops. They are scared that they will get profit as much as they are invested.

III. FUTURE SCOPE

While certain individuals and groups oppose advances in agriculture technology a look at the facts reveals a very

positive picture of the contribution made by technology to all of society. Advance in technology allow farmers to produce more with less while protecting the environment for the next generation if we are to deal with need of the over expanding population of the world we will have to move forward with technology not backward.

With the increasing use of technology in future it is also necessary to make farmers acquaint with the technology. The benefit of growing technology should also be provided to the farmers therefore, the advisory app for medicinal and aromatic plant will create a platform that will give information and technical knowhow

IV. CONCLUSION

Advisory App will provide a platform for buyers, sellers, industrialist and growers of medicinal and aromatic plant growers where they can communicate with each other and can simultaneously buy or sell their product. This app will also provide the various agro techniques required for cultivating such crops. Overall we can say that this app will boost the productivity of medicinal and aromatic plants.

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