# DIGITAL FISHING APPLICATION FOR FISH FARMERS

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## ABSTRACT

*Smart phone technology creates new opportunities for fish farmers to increase their productivity and selling with ease. Fish Farmers working on farms are now able with a low cost smart phone and the specialized software application to obtain facilities that couldn't have on their hands before. The use of this software application in a smart phone can overleap the high difficulties of fishers, fish farmers and input suppliers requirements which were stand as obstacle for many years so far. In this paper we present the e- Machhli which is an Android smart phone application and how it creates the management between the fishers, fish farmers and input suppliers and all of them to be performed by the touch of smart phone screen button. The use of software is basically or fishers and will be freely available on a Playstore .*

*This e-Machhli App is an initiative under Pradhan Mantri Matsya Sampada Yojana (PMMSY). The app aims to serve as a comprehensive fisheries development marketplace and information portal for direct use of fishers, fish farmers as well as input suppliers. The platform will be the central digital platform for farmers managing fisheries including buying and selling of high yield seeds, feeds as well as equipment and implements and laboratory testing facilities[11].*

**KEYWORDS:** *Android application, Fish Farmers , Fishers, Fish Suppliers, Mobile Application*

## INTRODUCTION

In today's scenario, at the central level there's no such existing digital platform which provides all fishers, fish farmers and input suppliers to communicate on a single platform .Hence there's a need for such system application which provides communication platform for them.

In this application called "e- Machhli" provided a facility of connecting fishers, fish farmers and input suppliers through a digital platform where they can easily exchange information about varieties, stocks and each and every information related to fishes . Hence this makes very easy for them to communicate which other. In this application basically there are four modules, every individual registering themselves according to their designation. Once they have created their account and made their profile they can use the privileges of the application for lifetime.

The Pradhan Mantri Matsya Sampada Yojana (PMMSY) maybe a flagship scheme for focused and sustainable development of fisheries sector within the country with an estimated investment of Rs. 20,050 crores for its implementation during a period of 5 years from FY 2020-21 to FY 2024-25 in altogether States/Union Territories, as a neighborhood of Aatma Nirbhar Bharat Package. Out of this, an investment of about Rs 12,340 crores is proposed for beneficiary-oriented activities in Marine, Inland fisheries and Aquaculture and about Rs 7,710 crores investment for Fisheries Infrastructure [8].

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PMMSY is supposed to affect critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization and strengthening of useful chain, traceability, establishing a strong fisheries management framework and fishers' welfare.

## EXISTING SYSTEM

In India no such existing application systems provide the trading and selling of fishes online or digitally all over the country. Hence arises the urgent need of such an application which is not only useful for fishers, fish farmers, input suppliers but each and every individual should have access and right to go for fish trading ,buying or selling it.

Fish Market place is a place where we found varieties of fishes and fish products. If it is a wholesale fish market then the exchange takes place between fisher suppliers and fish farmers whereas in retail market or we often called as street market customers use to buy goods and products from fish shopkeepers.

## PROPOSED SYSTEM

In this application all the Fishers (Capture), Fishermen and Fish Vendors and Input Suppliers, labs across the country register themselves on a single platform. Initially developed it as a self-managed mobile application.  Users can register with a valid Mobile Number and OTP and view other stakeholders in their area as per GIS coordinates. The app should progressively have additional features of information dissemination on PMMSY, Other Government programs, Weather forecast for Fishermen, Knowledge base, Extension services etc.

There may be not many Fishermen and related stakeholders may register themselves and use the App, given the requirement of smart phones with connectivity and digital literacy levels but to ensure high level of registrations of fishermen and other stakeholders and their engagement it will be necessary to involve CSC VLEs who will REGISTER them exhaustively and assist in submitting applications under various Govt. Schemes.

The App will have a component of assisted mode Registrations of Fisherman /stakeholders by CSCs. Post this, as per priorities of DOF additional services of IEC, Training, Govt. Services, PMMSY Services etc. at CSC can be considered and progressively developed, extending the engagement of the team.

## METHODOLOGY
**Workflow of proposed system [Figure 1]**

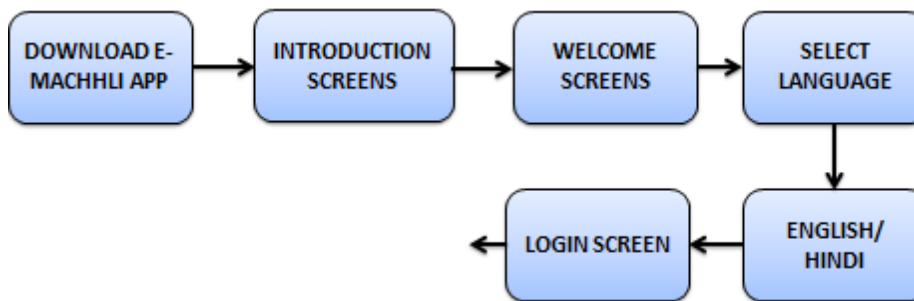| | | |
|---|---|---|
| I | **Step 1:** | Start |
| II | **Step 2:** | Registration |
| III | **Step 3:** | Login |
| IV | **Step 4:** | Validation |
| V | **Step 5:** | Profile Creation |
| VI | **Step 6:** | Gathering Information |
| VII | **Step 7:** | Exploring functions |
| VIII | **Step 8:** | Logout |



**Figure 1: Architecture of system application**

## MODULES DESCRIPTION

In this android application we have mainly four modules. Description of each module is explained in detail below-
### 1. FISHER
This module provides the fisher details. If the fisher is new to the application means they need to register for this application first after then they can access this application easily by using their login credentials.. The fisher can register the details with proper validation. and all the fields will be required for this registration process. The fisher can add the fishing details, which includes type or variety of fish ,water along with the exact location, and contact number.

Then the fisher profile has been generated which can be updated later on as per requirements.

## 2. FISH FARMER

This module provides the fish farmer details. If the fisher is new to the application means they need to register for this application first after then they can access this application easily by using their login credentials.. The farmer can register the details with proper validation. and all the fields will be required for this registration process. The farmer can add the fishing details, which includes type or variety of fish ,pond details along with the exact location, and contact number. Then the fish farmer profile has been generated which can be updated later on as per requirements. All the manipulation related to adding/deleting of fish variety can be performed easily once the profile is generated.

## 3. FISH VENDOR

This module provides the fish vendor details. If the vendor is new to the application means they need to register for this application first after then they can access this application easily by using their login credentials. The vendor can register the details with proper validation. and all the fields will be required for this registration process. The vendor have to add the

details, which includes type or variety of fish , shop details, contract with government along with the exact location, and contact number. Then the fish vendor profile has been generated which can be updated later on as per requirements. All the manipulation related to adding/deleting of fish variety can be performed easily once the profile is generated.

## 4. FISH SUPPLIER

This module provides the fish supplier details. If the supplier is new to the application means they need to register for this application first after then they can access this application easily by using their login credentials. The supplier can register the details with proper validation. and all the fields will be required for this registration process. The supplier can add all the fishing details, which includes type or variety of fishes available , pond details, contract with government along with the exact location, and contact number. Then the fish supplier profile has been generated which can be updated later on as per requirements. All the information related to stock of fishes can be generated from here. All the manipulation related to adding/deleting of fish variety can be performed easily once the profile is generated.
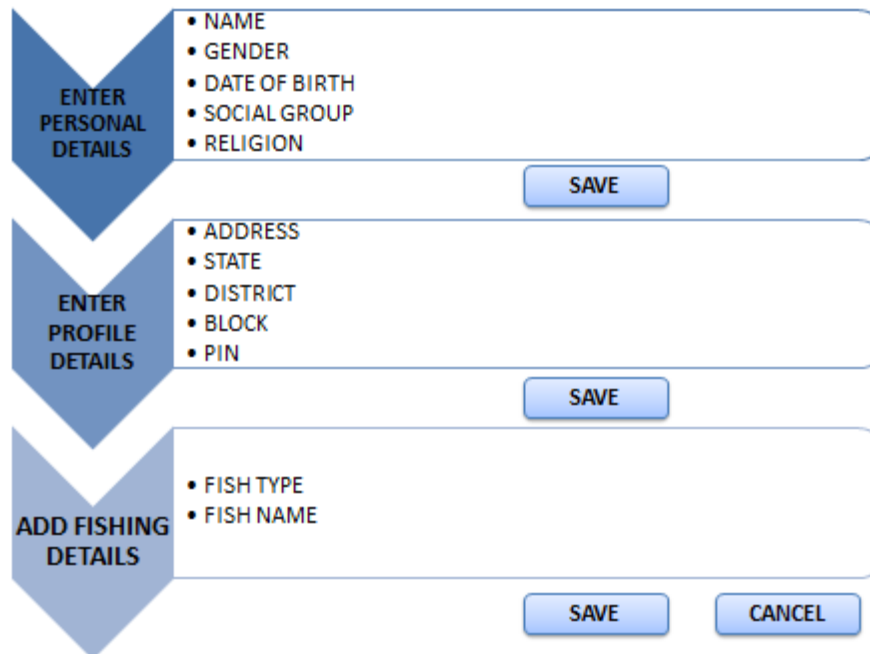


**Figure 2: Profile Creation**

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## FUTURE SCOPE

In the updated version of this application multiple functionalities can be increased like linking with Aadhar card, various online payment gateway methods can be included, reduction in various complexities. Maintenance and Updation of an application should be done regularly. Website can be modified enhancing many features. Maintenance should be provided to the application and websites with increasing functionalities. More enhanced and Strong User interface which supports numerous of users and their database with versatility.

## CONCLUSION

E-MACHHLI is the application which belongs to the Department Of Fisheries that is  which is designed as an android application for every individual who is related to the department of fisheries whether its fishers, fish farmers and input suppliers to communicate on a single platform . Till now there was no such existing platform for their communication therefore arises the need of an such application. This application is one of the innovation in the fisheries department for the fish farmers. It will definitely help them for the trading and business of fishes with ease. Department of fisheries is going to make this available for farmers and every individual as early as possible , currently it's under the testing phase .

## ACKNOWLEDGEMENT

## REFERENCES

1. https://en.wikipedia.org/wiki/Fish_market .
2. A.Ramya, R.Rohini & S.Ravi, IOT Based Smart Monitoring System for Fish Farming, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-8 Issue-6S, August 2019.
3. Francesco Rossi∗, Alfredo Benso∗, Stefano Di Carlo, Gianfranco Politano∗, Alessandro Savino∗ and Pier Luigi Acutis, FishAPP: a Mobile App to Detect Fish Falsification through Image Processing and Machine Learning Techniques, 978-1-4673-8692-0/16/$31.00 _c 2016 IEEE.
4. Suxia Cui ,1 Yu Zhou,1 Yonghui Wang,2 and Lujun Zhai1, Research Article Fish Detection Using Deep Learning, Hindawi,Applied Computational Intelligence and So. Computing, Volume 2020, Article ID 3738108, 13 pages,https://doi.org/10.1155/2020/3738108.
5. Ujwala T S1, Sunita G Devareddy2, Yamuna S3, Vandana S4, A Review on Fish Farm Aquaculture Monitoring & Controlling System, International Research Journal Of Engineering And Technology (Irjet) E-Issn: 2395-0056 Volume: 07 Issue: 02 | Feb 2020 Www.Irjet.Net P-Issn: 2395-0072.
6. Arpita Sharma and Kiranmayi Dhenuvakonda, Virtual fisheries through mobile apps: The way forward, E-ISSN: 2320-7078 P-ISSN: 2349-6800 ,JEZS 2019; 7(6): 1093-1099 © 2019 JEZS.
7. FAO. Information and communications technologies benefit fishing communities. New Directions in Fisheries – A Series of Policy Briefs on Development Issues,http://www.sflp.org/briefs/eng/policybriefs.html. 2007.
8. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1652573
9. https://economictimes.indiatimes.com/news/economy/agriculture/pm-modi-to-launch-flagship-fisheries-scheme-app-for-farmers-on-thursday/articleshow/78016160.cms?from=mdr
10. https://apk.center/in.gov.fisheries.html
11. https://apkdownload.com/down_eMachhli/in.gov.fisheries.html
12. https://agriculturepost.com/things-you-need-to-know-about-pradhan-mantri-matsya-sampadayojana/#:~:text=PMMSY%20scheme%20primarily%20focuses%20on,seaweed%20and%20ornamental%20fish%20cultivation.
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