



**Industry:** Seafood Import/ Export

**Deliverables:** • Web App  
• Android & iOS Mobile App

**Technology:** PHP CodeIgniter, iOS, Android

**Country:** India

## Project Goal:

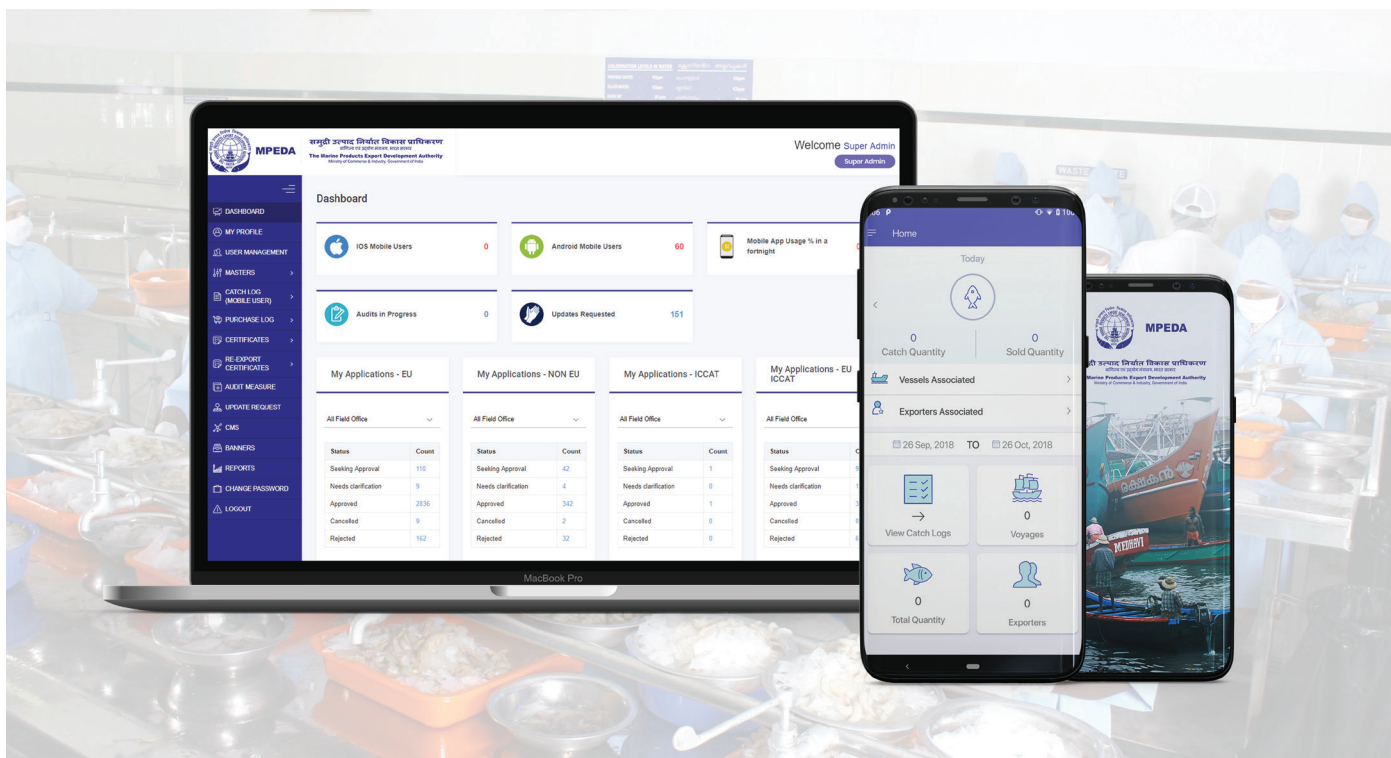
In yet another step towards achieving ease of doing business, MPEDA wanted an automated web and mobile app to scale traceability in the seafood industry. Their primary requirement was:

- To digitize traceability of the catch purchase and export
- Ease out the process of purchase, connection with different facility units, and getting approval for export consignments
- To make collaboration with the 49 harbors across India seamless
- Help auctioneers channelize their distribution process
- To fulfill EU's requirement of a digital certificate

## Challenges:

- The entire MPEDA operations were manual right from catch auctioning, to purchase, to distribution to the facility units to getting the Catch Certificate approval
- The old system of managing, tracking, and invoicing of shipments through customs was time-consuming and labor intensive
- There was no mechanism to trace the origin of the catch
- It involved a cumbersome spreadsheet with manual entry of details for each individual item
- Lack of traceability gave rise to malpractices which were important to address to
- Lack of validations gave rise to duplicate entries for vessels
- Lack of a proper mechanism to trace the products, by-products or wastage

“Leveraging an automated digital solution to MPEDA (The Marine Products Export Development Authority) to regulate the Indian export seafood market worth \$7 billion! The integrated web and mobile solution helped the department manage vessels, catch log, inventory, and export by enforcing traceability of material purchase in compliance with the Catch Certificate System.”



## Features

- Stakeholders (DEO, Exporter, Field Officer, and Super Admin) login
- Catch log sheet
- Purchase log sheet
- API integration to authenticate Vessels, Exporters, Field Officers, & Users
- Inventory management & Vessel Related Inventory control
- User management
- The product, by-product generation
- Online catch certificate approval process
- Payment API integration
- Data Security
- New format structured reports
- SMS and email Notifications/integration

## Solution

KCS was able to rope in MPEDA – one of the biggest Government Project, after submitting a tender and winning against other service providers. In order to thoroughly understand the client's requirement, we personally visited the location at Cochin for site survey where we coordinated with each and every stakeholder individually to understand their process.

For MPEDA, the lack of real-time fisheries data can result in ill-advised sourcing decisions. Hence, they wanted to automate their traceability process and digitize the operations in compliance with the Catch Certificate guidelines. We provided them with an integrated web and mobile application which revolutionized the catch inventory management, traceability, purchase distribution, and taking approval for the export consignments. The interface designed was user-friendly and responsive to their needs.

As the seafood industry faces pressure to operate more efficiently and profitably, our solution helped them:

- ional method with a digital platform
- Accelerate the processing time and productivity
- Automate the traceability process making it smooth and hassle-free
- Errors and duplication were eliminated
- Collaboration with 49 harbors and their field officers was made easy
- Catch Certificate Edit/Reject/ Cancel/ Pull back mechanism was generated
- Approval/rejection/ cancellation of any export assignment was done through a system

There were total five stakeholders who were going to use the system: Field Officers, Exporters, DEO, Administrator, and Mobile User (Auctioneer/ Fisherman). The web application had 4 different logins/ dashboards for each stakeholder.

### Exporter Login/ Dashboard

Built to keep a check on consignments sent to foreign countries, the module helped exporters automatically match the shipments to the Catch Certificate guidelines. In case the purchase order was not added by the DEO or Auctioneer, they were easily able to add the purchases from various sources namely Auctioneer, agent etc. and accurately keep a log of their purchase, processed product details, consignment details, and to maintain the certificate approval/reject/cancel status.

The Exporters can directly keep a track on the products/ by-products at the facility unit through the system. They can also apply for the approval of the consignment to obtain Catch certificate which is mandatory to unload the consignment at the designated Country/Harbor. The system allows the generation of EU & EU with ICCAT, NON-EU & NON-EU with ICCAT, and ICCAT certificate for exports and re-exports.

#### DEO Login/ Dashboard

The Data entry operators, designated at some selected harbors, fill in the Purchase Log Sheet on behalf of the Exporters using the web application. In absence of the DEO, even the Exporters can directly fill in the sheet through a web app.

#### Field Officers Login/ Dashboard

Field Officers are the main Authorized persons of the Marine Exports Development Authority of India who check, verify, and authorize the applications applied by the Exporters. They carefully scrutinize the data before giving any approval. If the order details are correct, they confirm the same by adding their signatures to the generated certificate.

Upon approval, the catch certificate pdf is generated with the sign of both the entities namely Exporters and Filed Officers and is termed as complete. This PDF is a legal document which is compulsory to show at the destination.

#### Super Admin Login/ Dashboard

Super Admin/Admin can make the configuration base in the system. They have access to all areas in the system and come into the picture whenever it is required.

#### Mobile application for the Auctioneer/ Mobile User

The mobile application developed for Auctioneer/Fishermen/or any other source of Catch Purchase made the entire process of auctioning the catch for purchasers/ exporters smooth. The Android and iOS mobile app helped them enter every information in detail right from the species of the catch, quantity, vessel details, exporter details, etc. They can then directly assign the same to the Exporters who are purchasing the lot from them. The Catch log sheet, Purchase Log sheet can be directly created from the app purchase.

#### Result:

In the fast-moving seafood industry, our real-time traceability solution has helped MPEDA and its stakeholders identify supply chain, business, and reputational risks as well as maintain vessel and purchase material log entry accurately. The integrated automated mobile and web app have eased out the work for exporters as well as for Auctioneer/ Mobile Users to a great extent while increasing productivity, faster time to process, and reducing malpractices.

The mobile app enables users to provide the right catch to the exporters at the right price and seamlessly make the purchase entry. Whereas, currently more than 1500 exporters use the browser-based web application on a daily basis to maintain correct logs of their purchase and export consignment details. The system collaborates the data from around 49 harbors in India and is used for the traceability of more than 10,000 shipments carrying more than 10 lakh MT seafood yearly.

The application free to download for use was developed as a part of the Prime Minister's Digital India Program and has automated the catch, purchase, and export material traceability by almost 70%. The system underwent a security audit by a Certified Agency and the testing was also done by NIC before the final deployment. There is a significant 13.8% rise in the export industry which has accelerated the export process and our automated system has made the entire operations hassle-free.



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