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The Use of Electronic Reporting for Regional Purse Seine Log Book
and Regional Observer Work Book Data

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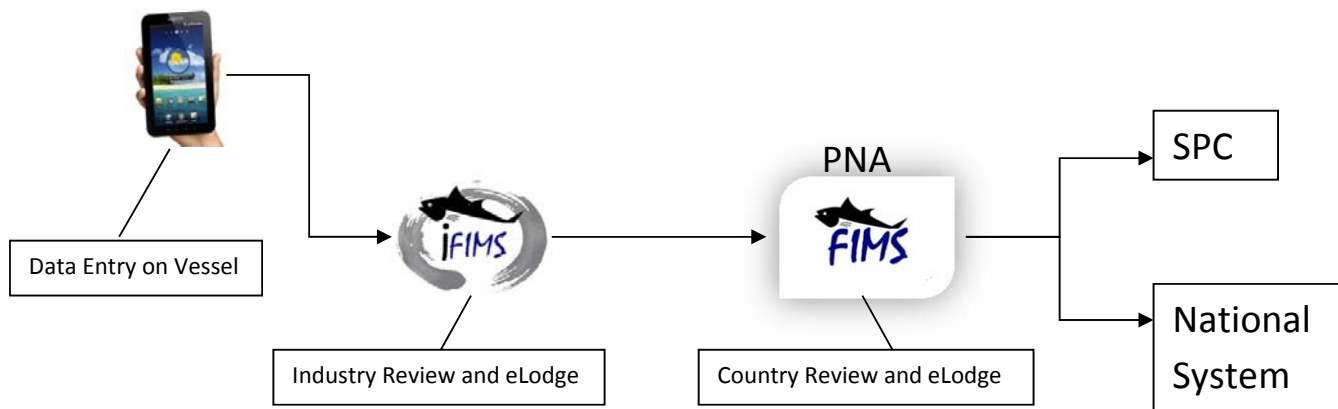
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The Use of Electronic Reporting for Regional Purse Seine Log Book and Regional Observer Work Book Data

D.Karis, P.Lens, B.Kumasi, M.Oates

1. Following on from the success of the electronic forms(eForms) for Port Sampling which use an Android Tablet Application(App) for improved quality and timeliness of data collection, the Papua New Guinea National Fisheries Authority (PNGNFA) has developed eForms for Purse Seine Vessels electronic reporting(eReporting) of Regional Purse Seine Logbook(RPL) and Observer Work Book Data.
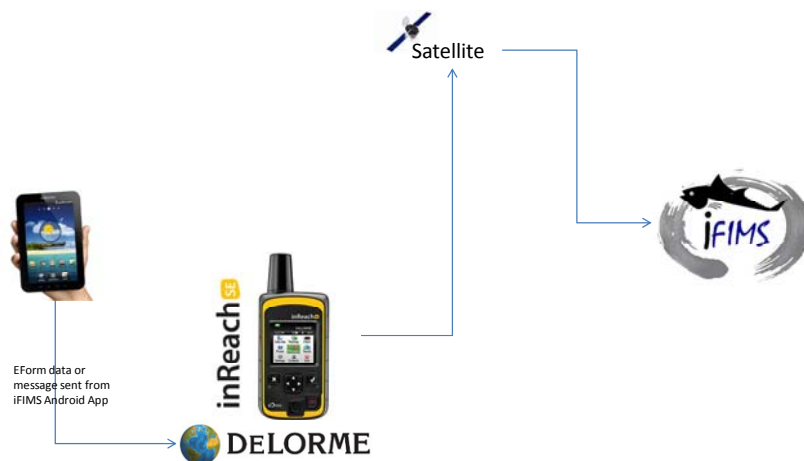
Purse Seine Log Book

2. eReporting of the RPL and electronic Catch Documentation Scheme(eCDS) information is managed through a system known as the integrated Fisheries Information Management System(iFIMS), which uses a Web-based platform in combination with an Android App for industry to enter and electronically Lodge(eLodge) data to National and Regional systems in North Atlantic Format(NAF).

3. iFIMS provides industry with their own platform to manage and eLodge data near real time regardless of which country waters they may be fishing.

4. iFIMS is a separate and distinct system only for industry, customised at industry request, with ongoing management and development now funded by industry.

5. Data received to the regional system, Parties to the Nauru Agreement(PNA) FIMS under the TRIP MENU and can be review by the Country User before being sent as an encrypted NAF string to the National Systems and to SPC for inclusion in the regional data base.

6. PNGNFA have been trialling the system since January 2014 and have received Trip information for over 700 Trips, which are currently in the process of being reviewed and eLodged to SPC, for activity in PNG waters, as part of the trial.

7. PNGNFA trial will complete on 31st December 2014 with full conversion to this paperless technology commencing 1st January 2015.

8. Other PNA Members and Non-PNA Members have also started receiving data into PNA FIMS and PNA has commenced training for other PIC to use the new TRIP MENU and associated tools available in PNA FIMS.

9. There are no additional costs to PNA Office, PNA Parties or Non-PNA Parties to use the TRIP MENU in PNA FIMS. The only external costs are for "train the trainer" training of PNA Office staff in Capacity building for the system.

10. Advantages include:
    i. Improved Timeliness of Data
    ii. Error Checking at the point of data entry for improved Data Quality
    iii. Validation against VMS Activity for improved Data Completeness
    iv. Tablet App does not need connectivity during use. eForms Stored and sent when a connection becomes available
    v. Connection from Tablet chooses least cost route; Wifi,3G/4G, Satellite Delorme inReach Personal Communications Device(PCD)
    vi. Android Tablet easy and cheaply available for Industry Users
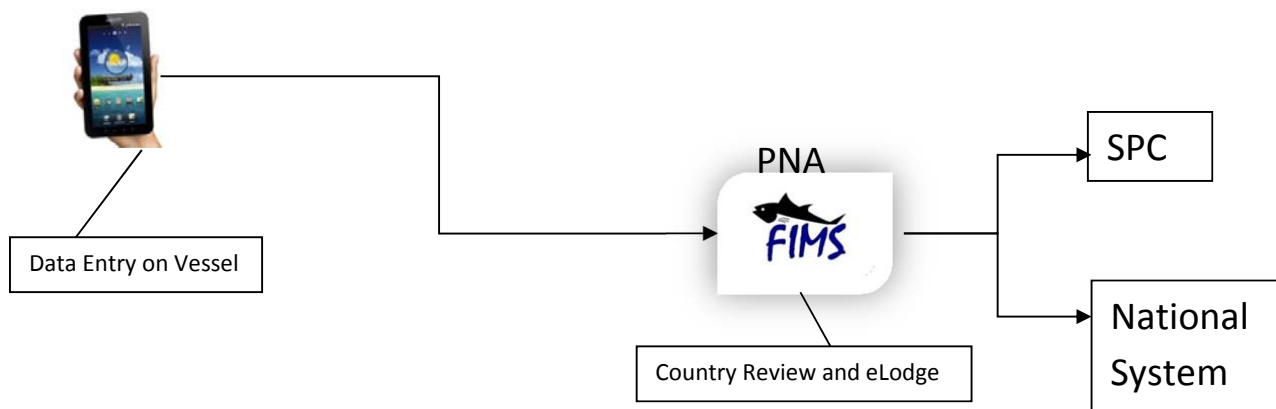
PCD Sending eForm

11. iFIMS has been well adopted by Industry with over 220 Purse Seine Vessels Currently Registered and using the system.

12. The iFIMS Android App is system ready for Multiple Language and awaiting translations currently being undertaken by iFIMS Registered Users.

13. High Seas Logbook Reporting is also available in iFIMS and this data can be directed to Commission Systems with ease.

14. iFIMS is a flexible system built "fit for purpose" and can be adapted as needed to meet the needs of the region.

Observer Workbook

15. eReporting for the Observer Workbook, eCDS and Marine Stewardship Council(MSC) data, from Observers whilst at sea, has also been developed using Android App Technology. With successful sea trials completed last month, deployment to PNGNFA Observer Program, Marshall Islands Observer Program and PNA FSMA Observer program is scheduled over coming months.

16. Data from Observers at sea is entered on the Android App and sent to PNA FIMS .

17. Data received in PNA FIMS is Automatically matched to the Vessel Trip and displayed under the TRIP MENU. The data is also automatically matched with the VDS Trip and any Non-Fishing Day(NFD) Claims [1]

18. The data displayed under the TRIP MENU can be review by the Country User before being sent as an encrypted JSON or XML string to the National Systems and to SPC for inclusion in the regional data base. [2]

19. Data regarded as "Time Critical" during the trip such as CDS/MSC, NFD Activity and MCS data can be sent Near Real Time using Satellite Delorme inReach PCDs, whilst other information such as Photos and sampling data can be sent using Wi-Fi during the debriefing process to keep costs to a minimum.

20. Other PNA Members and Non-PNA Members can use PNA FIMS to Manage their Observer Data using the TRIP MENU and associated tools.

21. There are no additional costs to PNA Office, PNA Parties or Non-PNA Parties to use the TRIP MENU in PNA FIMS. The only external costs are for "train the trainer" training of Country and PNA Office staff in Capacity building for the system.
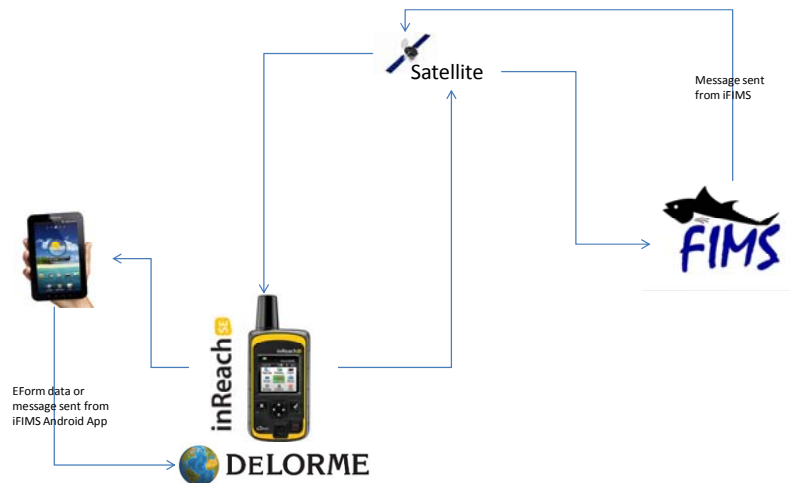
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[1] In final stages of development
[2] Working with SPC on data format and tags

22. Advantages include:
    i. Improved Timeliness of Data
    ii. Error Checking at the point of data entry for improved Data Quality
    iii. Validation against VMS Activity for improved Data Completeness
    iv. Validation against Vessel Logbook Data.
    v. Tablet App does not need connectivity during use. eForms Stored and sent when a connection becomes available
    vi. Connection from Tablet chooses least cost route based on the data type
    vii. The system also provides the Observer with their own independent source of two-way communication back to shore, including SOS location tracking in the case of an emergency.

Observer PCD Sending and Receiving

23. Commission Observers collecting Observer Workbook data can also use the Android App and this data can be directed to Commission Systems with ease.

24. PNA FIMS is a flexible system built "fit for purpose" and can be adapted as needed to meet the needs of the region.

Acknowledgements