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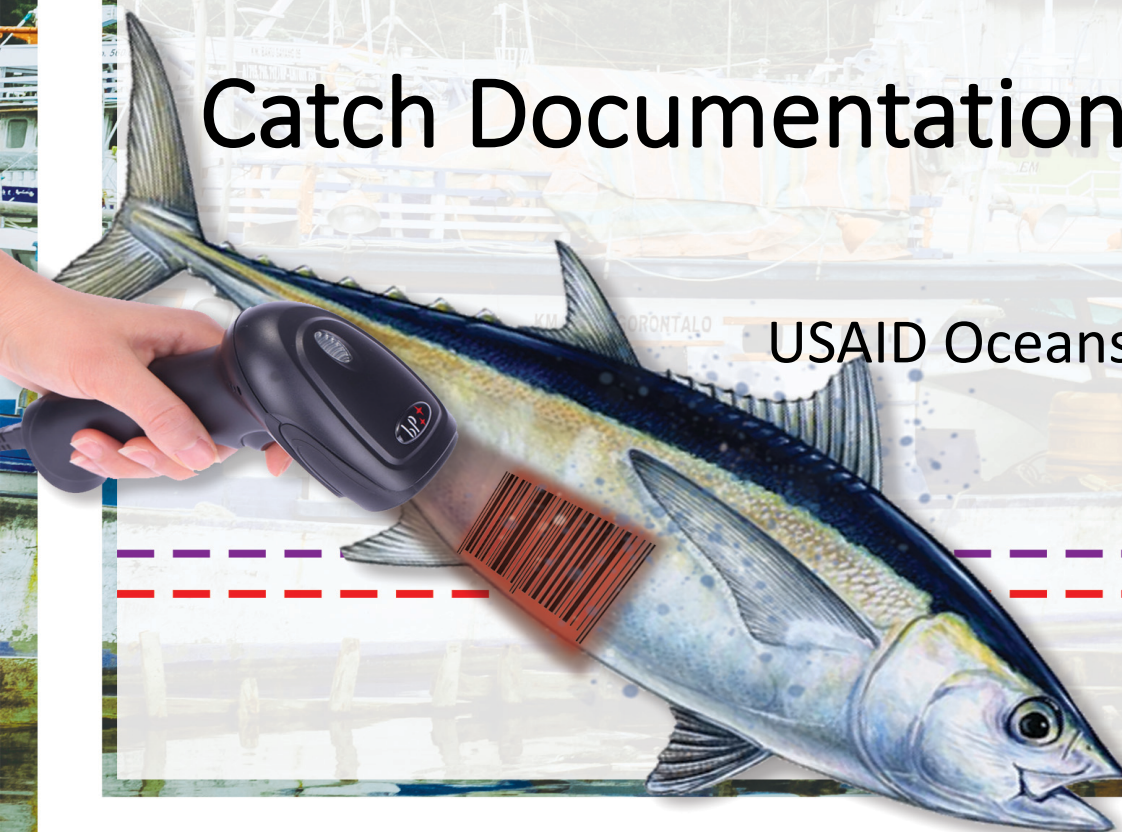


LEARNING EXCHANGE FOR CT6 COUNTRIES AT USAID OCEANS LEARNING SITE (BITUNG)
APPLICATION OF CATCH DOCUMENTATION AND TRACEABILITY (CDT SYSTEM FOR FISHERIES AND SEAFOOD PRODUCTS)

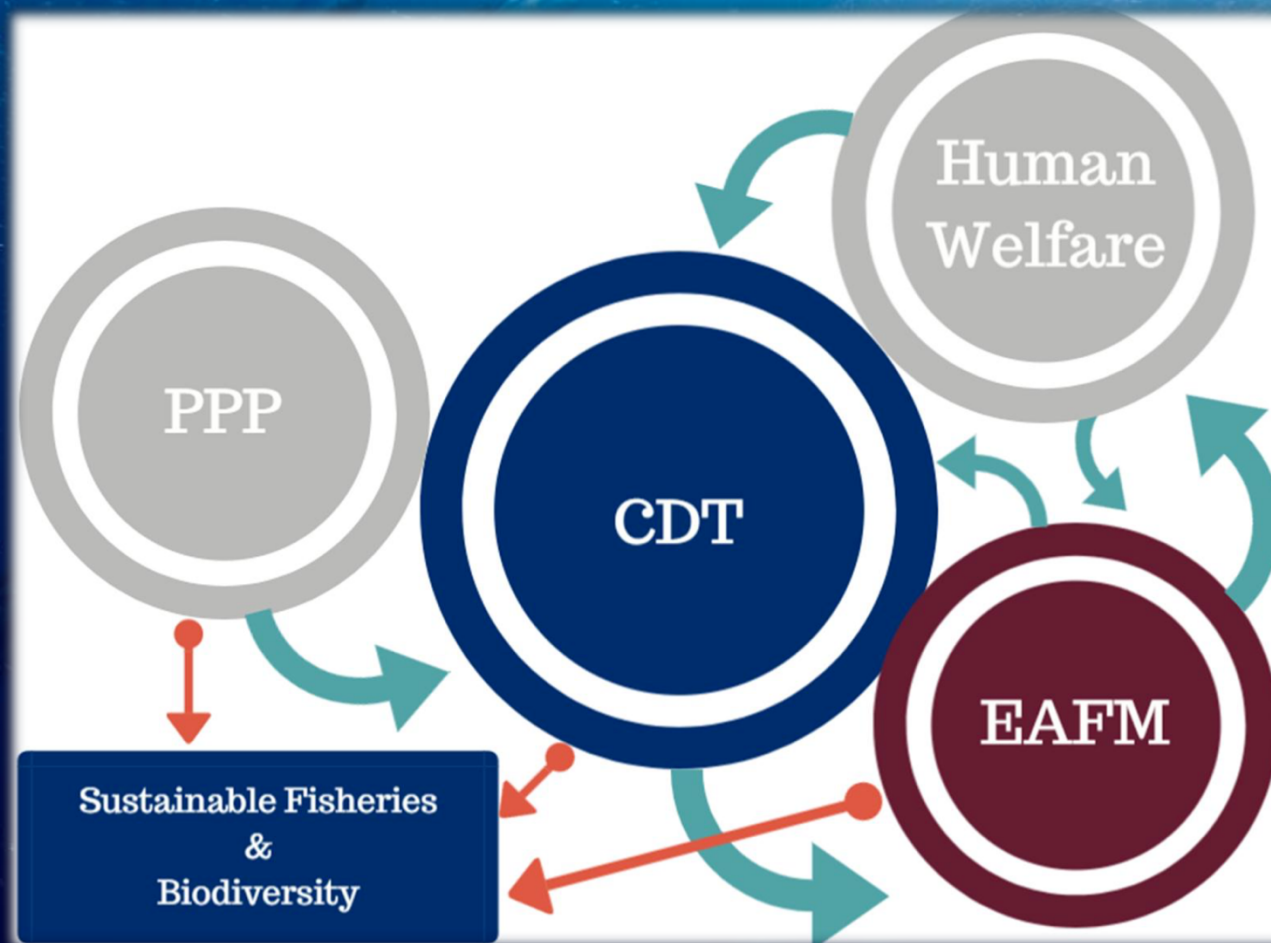
25-28 June 2018
Manado-Bitung, Indonesia

Catch Documentation and Traceability in ASEAN

Farid Maruf,
USAID Oceans - Regional CDT Specialist



USAID OCEANS' APPROACH



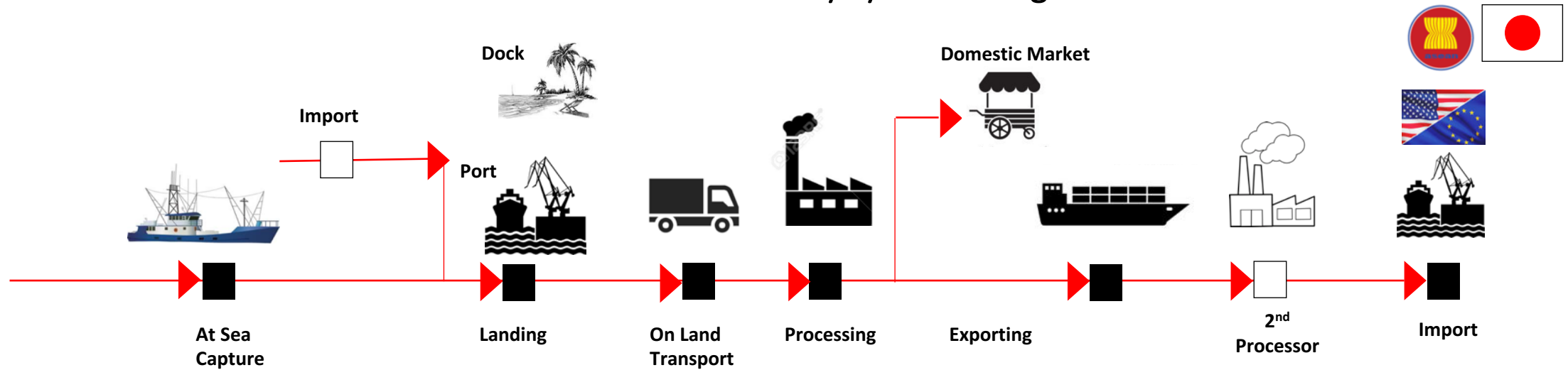
USAID OCEANS AND FISHERIES PARTNERSHIP (USAID OCEANS)

- Combats **illegal, unreported, and unregulated (IUU) fishing** and seafood fraud, promotes **sustainable fisheries**, and **conserves marine biodiversity**.
- Aims to improve marine biodiversity conservation and increase sustainability of Asia-Pacific's international seafood trade through:
 - **Catch Documentation and Traceability**
 - Ecosystem Approach to Fisheries Management
 - Public Private Partnerships and Industry Engagement
 - Safe, Legal and Equitable Labor Practices
 - Regional Coordination and Governance

USAID Oceans CDT

- USAID RDMA through USAID Oceans is helping ASEAN Member States to develop a Catch Documentation and Traceability system
- Understanding that each country has its own uniqueness, thus USAID Oceans would like to capitalize on each country's assets
- USAID Oceans do not apply one size fit all solutions but rather would like to build on country existing system, process, regulatory and investment
- USAID Oceans work with variety stakeholders to ensure the sustainability of the system, these include work with government agencies, private sectors, donors and other NGOs in Bitung

CDT contributes and receives data to variety systems for government and business



GOVERNMENT

Sustainable Fisheries
Management Plan
Stock Assessment
Harvest Level
Harvest Strategy

Combating
IUU
PSM
MCS

Food Security
Logistic (Inputs)
Cold Storage
Distribution
Nutritional Supply

Food Safety
HACCPP

GDP
Trade Balance
Customs Revenue

BUSINESS

Catch reporting
Fleet Management

Company
Supply
Chain

Enterprise
Resources
Planning

B2B Certification
(MSC, Fair Trade,
SFW)

B2B and B2C
Traceability

SUPPLY CHAIN



AT-SEA



PORT



BUYER/
BROKER



SHIPPING/
DISTRIBUTION



PROCESSING



EXPORT/
SHIPPING



IMPORT

Retailer
Customers



Indonesia



E Catch Reporting

Inmarsat (Pointrek)
Iridium



MMAF STSIPP



Supplier App
(Small Scale)

TraceTales



Philippines



E Catch Reporting

FAME Small Scale VMS



BFAR E-CDTS



Supplier App
(Small Scale)

TraceTales



Malaysia



E Catch Reporting

Inmarsat, Iridium, FAME



E-ACDS

ASEAN Catch Documentation Scheme (SEAFDEC)



Supplier App
(Small Scale)

TraceTales



Vietnam



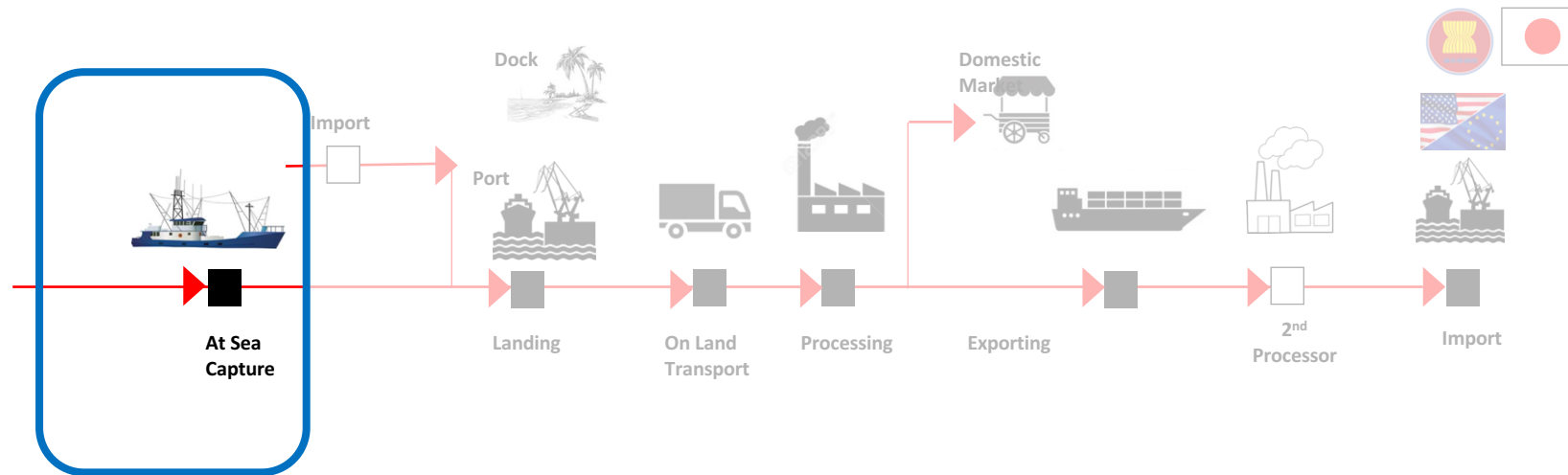
Myanmar



Thailand

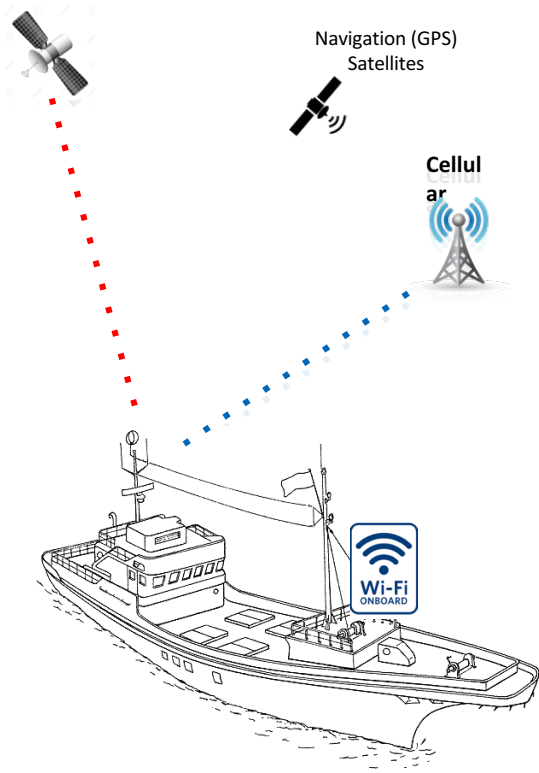


Cambodia



At Sea Data Capture

Inmarsat 2 way VMS for medium to large vessels



- Hybrid satellite-cellular communication with auto switch over technology
- **Catch Reporting** app to enable at **sea data capture**;
- Provide internal fleet monitoring and management including telemetry data
- Provide local Wi-Fi connectivity with limited internet connection to the crew
- Enable to **facilitate person to person simple text communication** (crew – family)
- Geo Fencing
- Emergency and Distress Locator
- Alerts and Broadcast

Status:

1. Catch Reporting able to comply to Indonesian logbook (Ministrial Decree 48/2014)
2. Currently tested in 7-10 vessel in Bitung

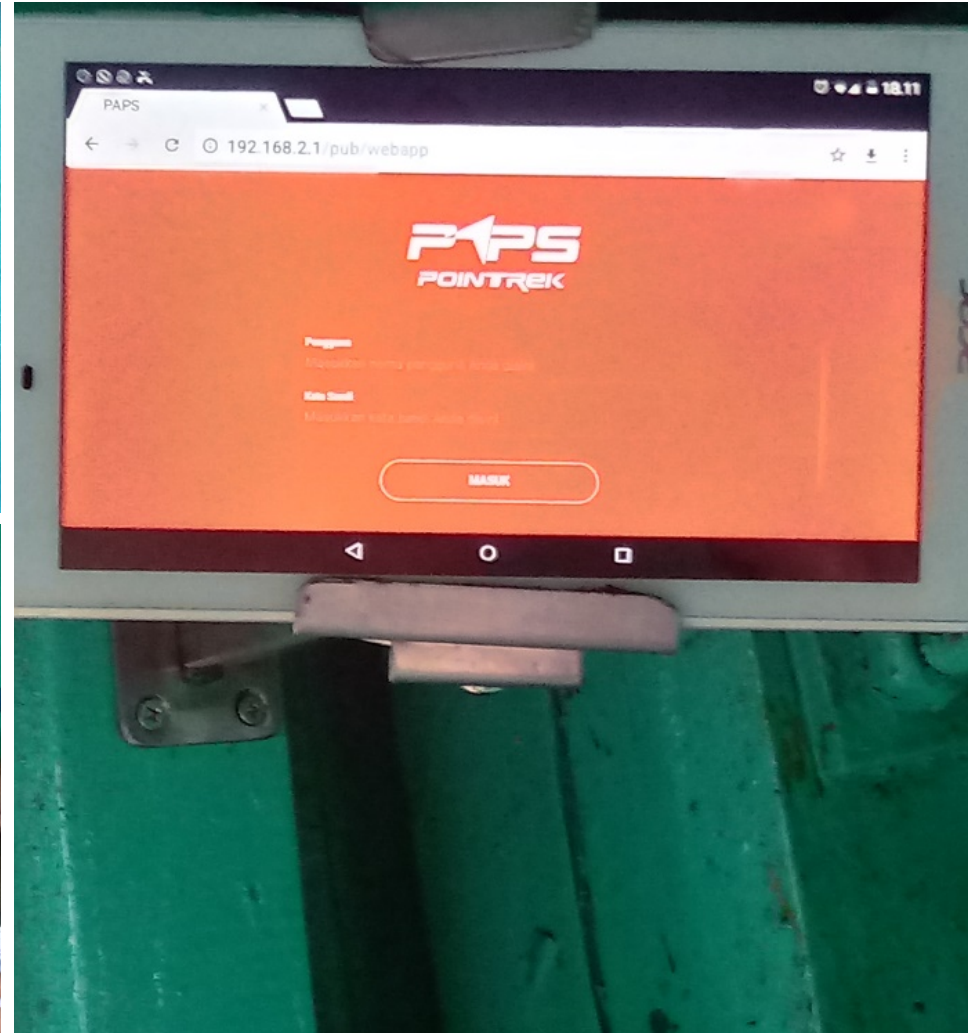
Roadmap:

1. Usage will be scale to 300 vessel under Inmarsat IPP project
2. Will able to exchange data with MMAF logbook and Catch Certificate system

Inmarsat 2 way VMS installation



Inmarsat 2 way VMS training



Small Scale – VHF



FAME

Small scale VMS and Communication Devices

1. IP66 rating
2. Integrated SOS button and Distress switch
3. Long Range of more than 50 km, reach farther if line of sight.
4. Mesh Network capability to extend the range
5. VHS using LORA frequency band (free, Indonesia 923-925 MHz)
6. Sending location data in preset interval, default 15 minutes
7. Geo Fencing
8. Secured data transmission encrypted
9. Send telemetry data through connected sensors cold storage temperature and fuel
10. Solar and mini turbine powered
11. USB OTG connection (option Bluetooth or/and NFC)
12. Catch reporting complies with USAID Oceans and BFAR data requirement
13. Chat and messaging including to SMS gateway (carrier charge might apply)
14. Alerts indicator (a blinking light at the transponder indicate important message in mailbox mobile application)
15. Mobile tracking application for authorized user (family member / boat owner)



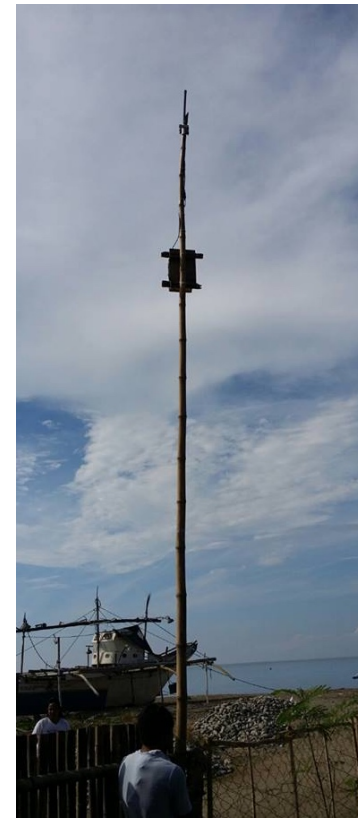
Status:

1. Currently piloted in General Santos, 3 municipal landing areas
2. 3 base station already set, 30 units will be deploy by end of May.

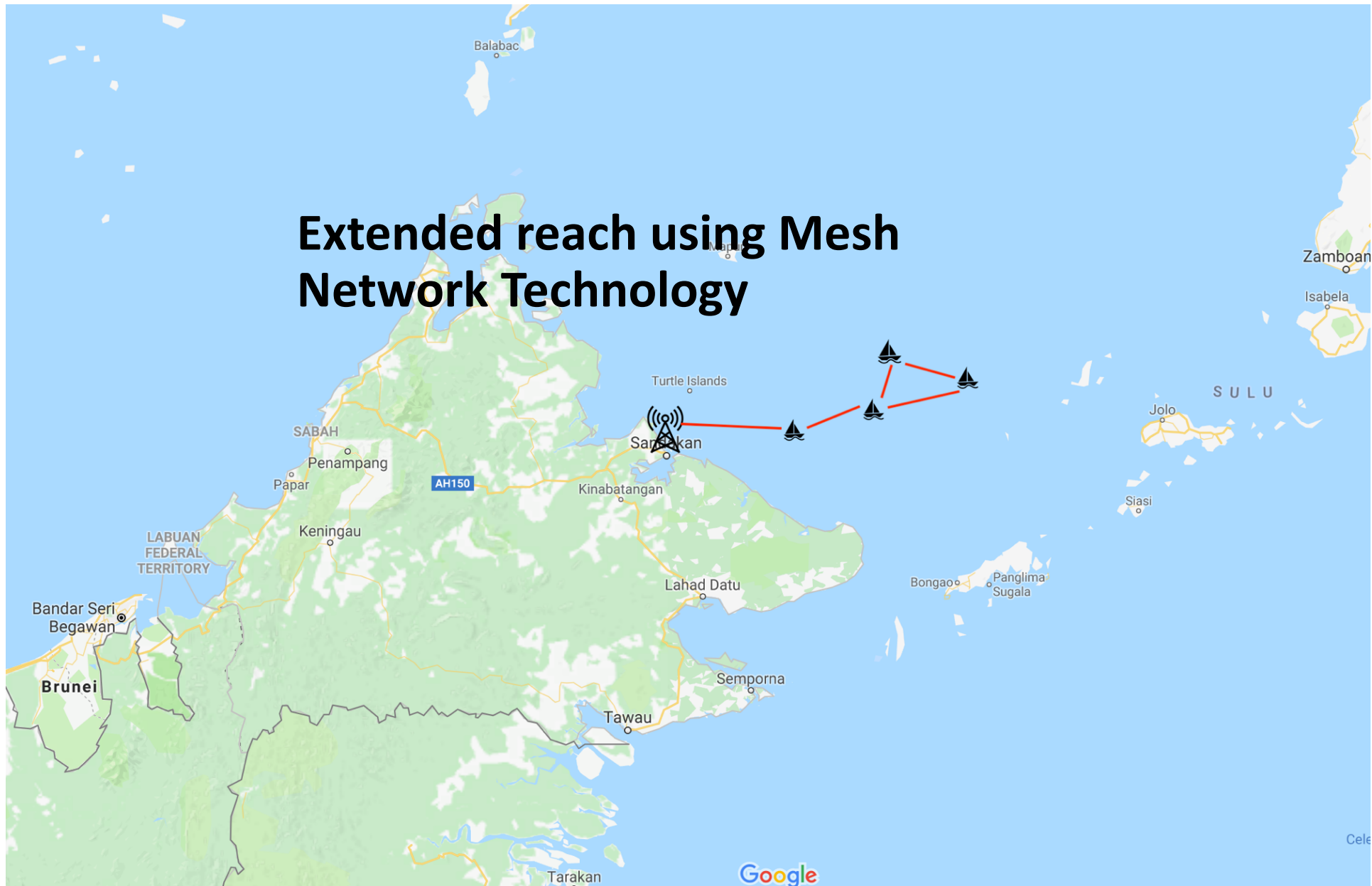
Roadmap:

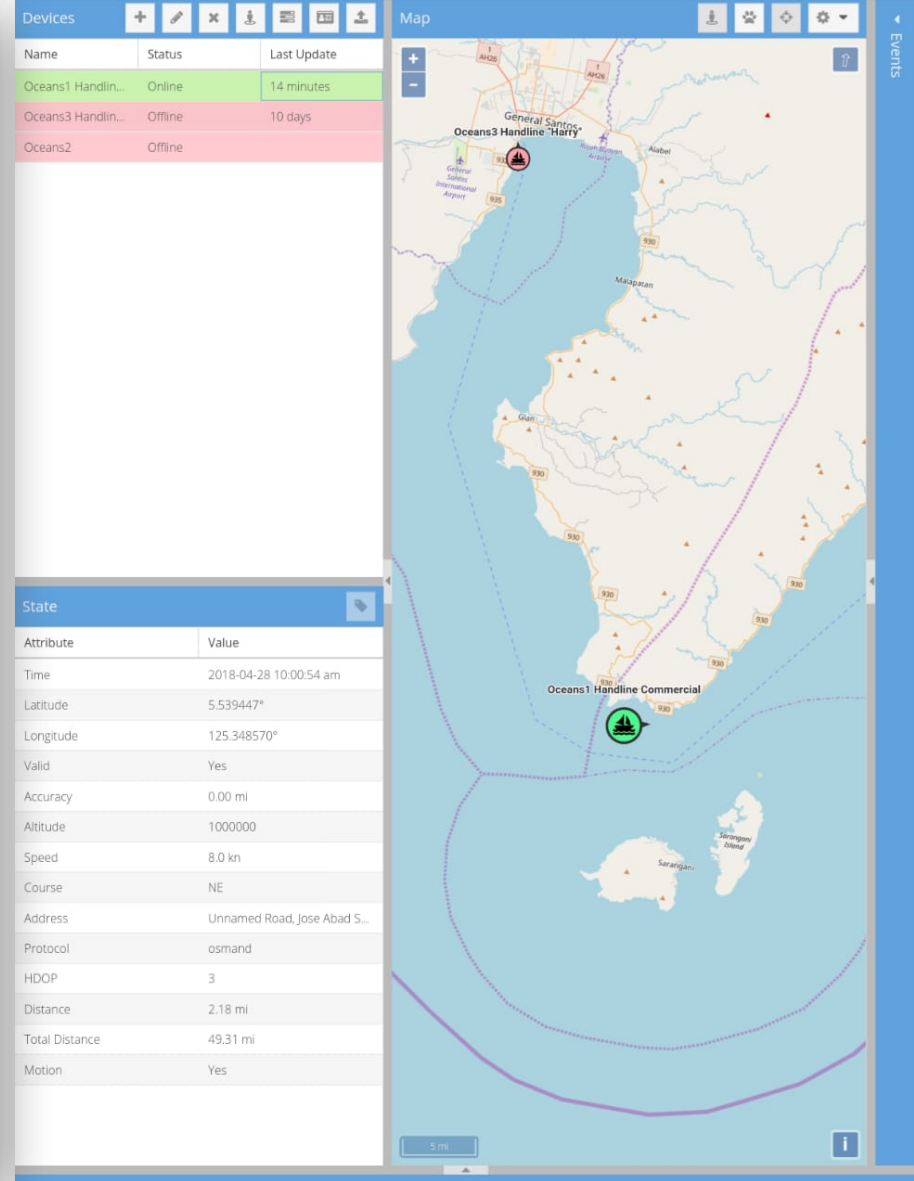
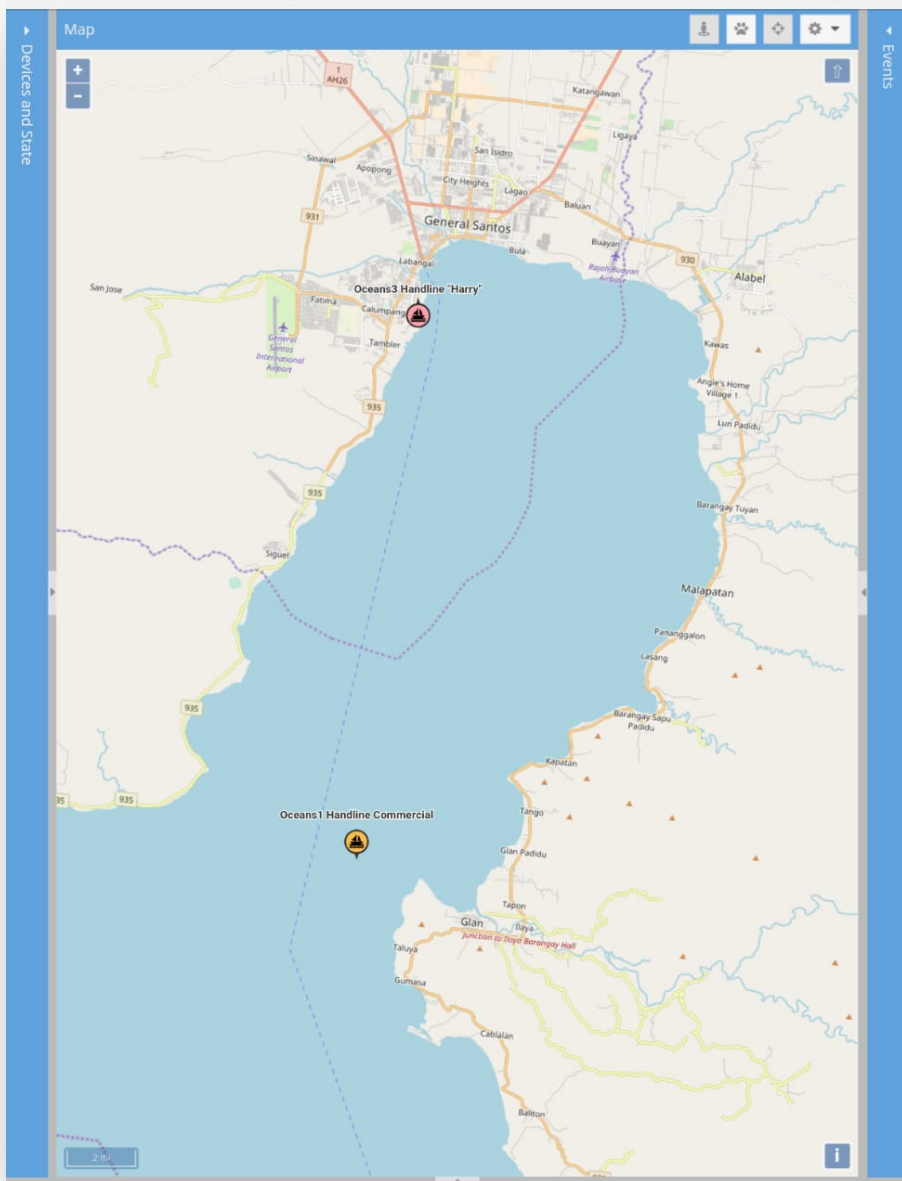
1. Expand the application to “community watch”
2. Working with LGU (perangkat daerah) to produce local regulations

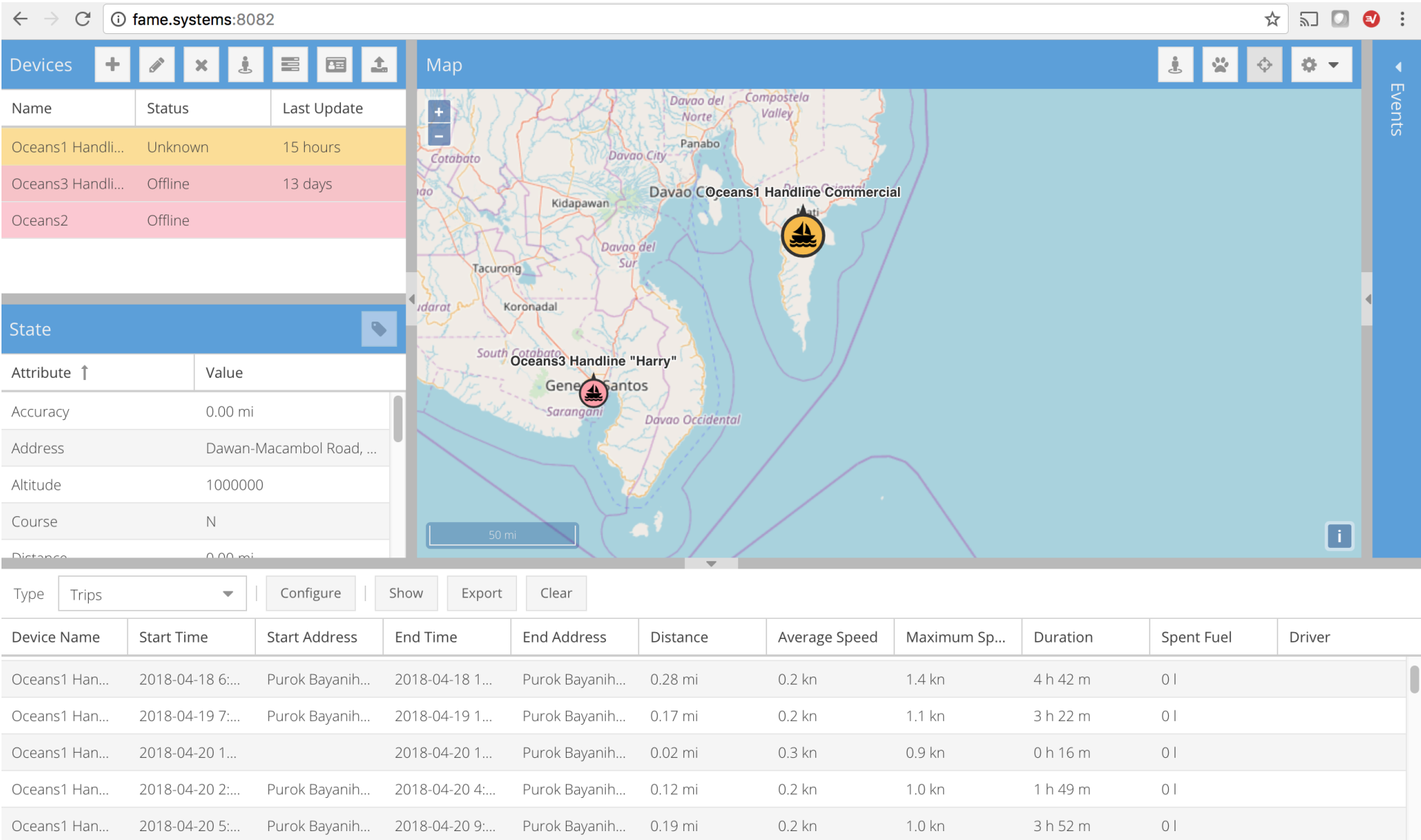
Vessel Tracking Technology: Small Scale Fisheries



Extended reach using Mesh Network Technology









TRAFIZ

Supplier App for Small Scale Fishers

Mobile application for fish supplier as business book keeping tool and serves as the first entry of data into the traceability





TRAFIZ



**Robust off line - on line capability
to cater connectivity challenges in
the remote coastal area**

Receiving and Grading

Tambah Tangkapan

YFT GG (5 unit, 150 kg)

10A	20A	30AA	10A	20A	30AA
30AA	40A	20C	30AA	40A	20C
50C	10AA	40C	50C	+	

Tambah Ikan Lain ⇐ Hapus Terakhir

60A + Tambah Ikan

60 kg, Grade A, Ada catatan

1	2	3	Pilih Grade ▾		
4	5	6	A	AA	AAA
7	8	9	B	C	CCC
0	⇐	+ Catatan			

Delivery and Invoicing

Amir

YFT GG (5 unit, 150 kg)

Amir - Kapal Tuna Jaya
Laut Sulawesi (715 - G17)

Edit

	A180501 10kg Grade A	ID EU US Nutrindo	>	Kirim
	A180502 30kg Grade AA	ID EU US	>	Kirim
	A180503 50kg Grade C	ID EU US	>	Kirim
	A180503 20kg Grade A	ID EU US Nutrindo	>	Kirim
	A180503 50kg Grade A	ID EU US Nutrindo	>	Kirim

+ Tambah Tangkapan

Hitung (Rp. 5,000,000)

Kirim Semua Ikan

Loan and Payment

Hitung Ikan (Amir)

YFT GG (5 unit, 150 kg)

Harga per kg: **Rp. 30,000**

Nilai beli: **Rp. 60,000,000**

Pinjaman
4 barang, estimasi Rp. 20,000,000+ Lihat detail >

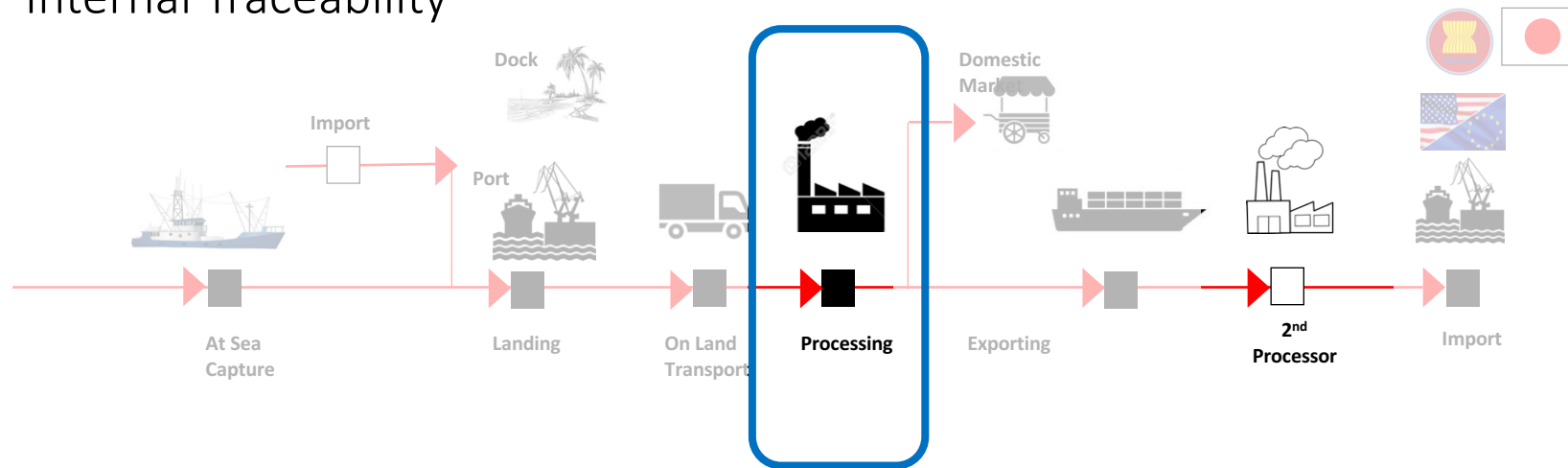
Pengembalian pinjaman: **Rp. 20,000,000**

Masukkan Pengembalian Pinjaman >

Potongan lain-lain: **Rp. 1,000,000**

Nilai beli bersih: **Rp. 39,000,000**

Internal Traceability



TraceTales

TraceTales system is comprised of a custom-developed software program that capture KDE in every steps of processing. The system equipped with

- a computer
- touch screen monitor
- keyboard
- label printer
- digital scale and scanner

The hardware has been specifically designed to be durable, water-resistant, and easy to use on the fast-paced processing floor.

TraceTales



Status:

1. Community version is developed
2. Tested and implemented by MDPI (BOGI, Sangihe – Bitung)

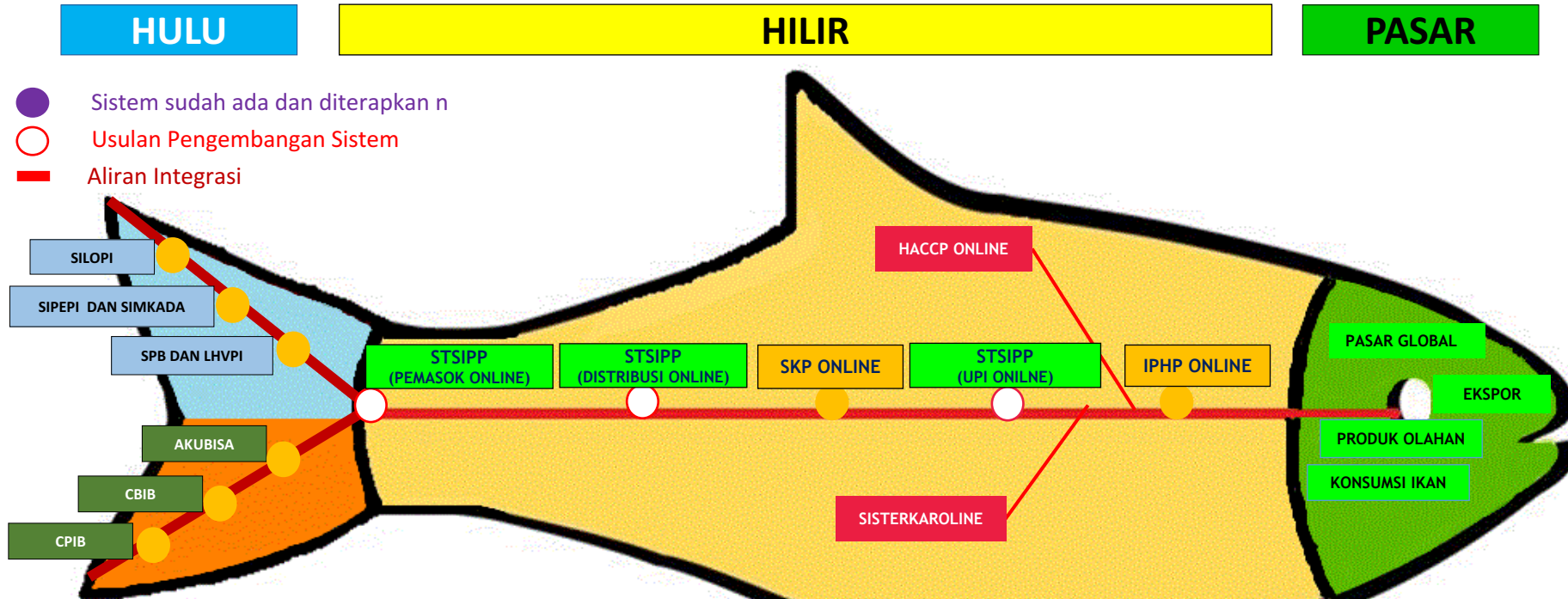
Roadmap:

1. Will be tested and implemented in other ASEAN countries
2. Commercial version will be introduced

USAID Oceans CDT

- USAID Oceans has been working with MMAF in establishing CDTs since 2016 and the progress since last year:
 - USAID Oceans support MMAF development and implementation of STSIPP (Indonesia fish traceability system at downstream)
 - eCDT trial for medium and large -scale fisheries using electronic logbook for enabling at-sea catch report just applied to two early mover companies in Bitung
 - eCDT trial for small-scale fisheries using supplier application Traviz, soon will be tested with supply chains in Bitung
 - USAID Oceans partnership with MDPI, do trial on internal traceability system at one early mover company

MMAF STSIPP (Downstream traceability)



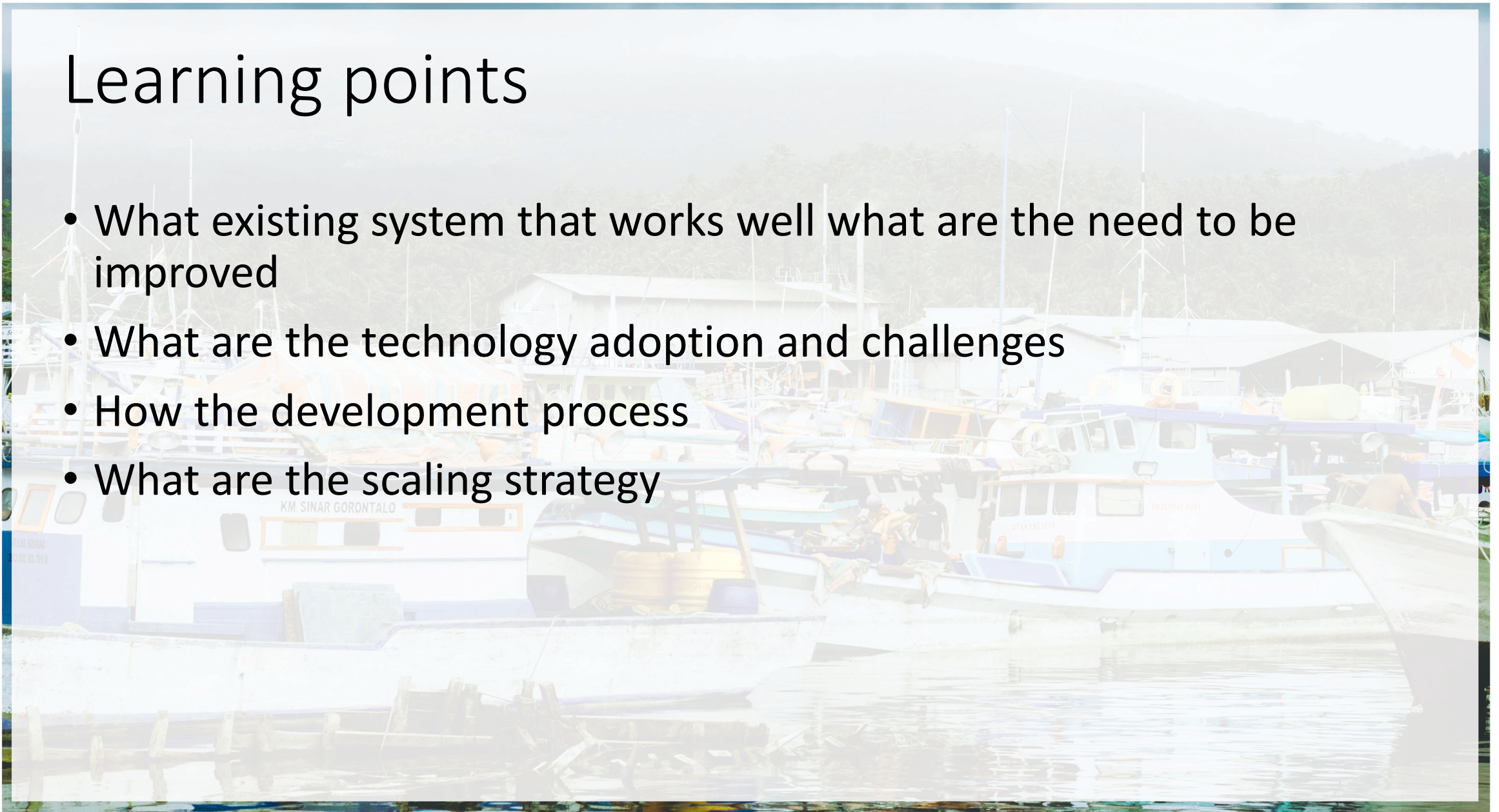
Keterangan:

1. SILOPI -- Sistem Informasi Logbook Penangkapan Ikan
2. SIPEPI -- Sistem Informasi Perizinan Penangkapan Ikan
3. SIMKADA -- Sistem Informasi Kapal Izin Daerah
4. SPB -- Sistem Informasi Ijin Belayar
5. LHVPI -- Sistem Informasi Verifikasi Hasil Tangkapan Ikan
6. CPIB -- Sistem Informasi Sertifikasi Cara Pembenihan Ikan yang Baik
7. CBIB -- Sistem Informasi Sertifikasi Cara Budidaya Ikan yang Baik
8. AKUBISA -- sistem perizinan online untuk kegiatan usaha perikanan budidaya.

9. SISTERKAROLINE -- Sistem Karantina Ikan
10. HACCP ONLINE -- Sistem Sertifikasi Keamanan Mutu
11. SKP ONLINE -- Sistem Informasi Sertifikasi Kelayakan Pengolahan Ikan
12. IPHP ONLINE -- Sistem Informasi Impor Hasil Perikanan

Learning points

- What existing system that works well what are the need to be improved
- What are the technology adoption and challenges
- How the development process
- What are the scaling strategy



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